DEVELOPMENT PLAN 1964-1970

INTRODUCTION

by

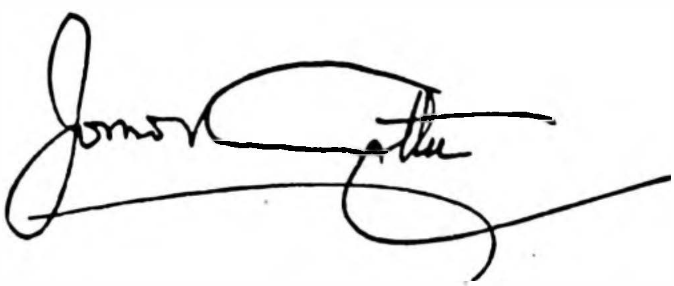
HIS EXCELLENCY THE PRESIDENT MZEE JOMO KENYATTA

Social justice for everyone in Kenya has been the aim of my Government since *Uhuru*. Growing economic strength must therefore be pursued, as the substance underlying this ideal. Our new Development Plan outlines the steps that must be taken—and the targets that can be reached—over the next five-year period, to build on all the foundations of vigorous nationhood that have now successfully been laid.

Development of our Republic involves every man, woman and child. Prosperity is something in which all people have an equal stake. The Government can—and indeed must—be responsible for planning and administration and the control of national finances. The Government must also be concerned with creating or harnessing all the structures and facilities that are needed to inspire or regulate a modern, mixed economy. But it is the effort of the people that still matters most of all.

No development plan can come to fulfilment without the dedicated work of all Kenya's workers, i.e., farmers, businessmen, factory hands, etc. Building a nation must be a balanced process. Securing the strength to ensure social justice demands that every citizen should recognize his opportunities—and responsibilities—so that the end-product is made up of the fullest contribution from every family.

The new Plan is far more ambitious than anything we have attempted before. All the early years of survey and experiment—weighing up material and human capacities, and getting things moving in directions dictated by our own political philosophies and social aims—are now behind us. In this next phase, rural Kenya will be further transformed; the industrial sector of our economy will become really substantial and the progress already made with tourism will be accelerated. It follows that social services may enjoy a whole new impetus as well. All this can be done, through the *Ujamaa* approach that—for us—represents the unbreakable link uniting Government and people.



PREFACE

by

THE MINISTER FOR ECONOMIC PLANNING AND DEVELOPMENT

The election of the second National Assembly has coincided with the publication of Kenya's Second Development Plan which sets down in very much more detail than is possible in an election manifesto, the policies and programmes of the KANU Government for the next five years. The primary objective of the Government is the development of our economic resources to achieve the goal of economic independence, together with social justice and a steadily improving standard of living for all. This Plan indicates the policies and programmes which will be undertaken towards the achievement of this objective.

We can be proud that so many of the targets set out in the First Development Plan covering the years 1964-70 have been achieved. The Government's commitment to realistic planning has meant that the economy has been expanded as hoped, while its pattern and structure have simultaneously been changed in conformity with the principles contained in the original KANU manifesto and Sessional Paper No. 10 of 1965 on "African Socialism and its Application to Planning in Kenya". We do not claim to have achieved an economic miracle in four or five years but we can say that, in large measure, we have undertaken and achieved what we said at the outset we proposed to undertake and achieve.

Despite the really substantial progress made so far, much still remains to be done. We have only just started on the long road of national development leading to prosperity and social justice for all. The Government now proposes to accelerate the development of the economy even faster and this Plan describes in detail how this will be done. We do not suggest that we shall complete an economic revolution within the period covered by this document but by careful planning, a realistic assessment of the resources available to us, and a united dedication to the task before us we shall, even in five years, move significantly towards the ultimate goals we have set ourselves.

The targets set in Kenya's First Development Plan were ambitious: the targets in this Second Plan are even more so. The attainment of the new objectives will therefore require the complete commitment to the Plan by the whole Kenya nation. We can only achieve the standard of life the people have a right to expect if the level of national production is raised so that the country can afford those standards. The objective of planning is not to set down a series of goals promising great wealth for everyone but to make a realistic assessment of the resources available to the country, to choose those paths which will accelerate progress in the directions desired and to proceed as far as possible and as fast as possible towards the goals set down. Thus, although the new Plan sets the country a hard task, it is a task within its capacity to achieve. Indeed it is vital that it is achieved.

The Plan demonstrates that although there will be no revolutionary changes in recent development policy, in a number of important ways the emphasis will change. Thus, although the overall object is to accelerate the rate of growth of the economy as a whole, we are now proposing that an increasing share of development should be directed towards the rural areas: special programmes are being put together to obtain a significant improvement in the standard of rural life. Rural development is the basic strategy of this Plan, for it is our aim that the fruits of development will be shared amongst the mass of the people as a whole, not just amongst a favoured few. An incomes policy is set down in the Plan as an integral part of this same strategy, closely related to our existing policies of social justice and African Socialism.

The emphasis on teaching in schools will gradually change during the new Plan, so that greater attention is given to the training of children for the social and work environment they can expect to find when they leave school and enter the national labour force. Vocational and technical training as well as the teaching of science will become increasingly important.

The need for continued reliance on expatriate personnel is considered very carefully in this Plan. The Kenyanization of Personnel programme has already increased significantly the number of Africans in high and middle manpower positions and it is proposed to continue with this programme. We have set ourselves the target of filling effectively all positions now occupied by non-citizens by 1982. The nation's education and training programmes will be planned and expanded in order to produce the right sort of Kenyan manpower necessary to meet this target. The types of manpower we are likely to need from overseas in the interim period are set out in the Plan.

The Government believes that the attainment of economic independence requires that Kenya citizens predominate in all walks of economic life. For this reason, the Plan contains proposals—and financial allocations—for funds to be lent to citizens to enter commerce, industry, transport or to expand their activities if they are already started. No one with enterprise and ability will be prevented from playing his part in these industries, simply because he is unable to raise the necessary capital to get started.

Economic independence does not however mean that we isolate ourselves from economic contacts with the rest of the world. On the contrary, our aim is to increase our trade with the rest of the world and the success of this Plan will be dependent on our selling more Kenya produced goods to other countries and on our attracting more foreign visitors to our game parks and beaches. Without foreign exchange we shall not be able to purchase the necessary machinery and equipment we need for development but which are not yet produced in Kenya. Indeed, we shall still need to look to friendly countries and international organizations to help us achieve the investment targets set out in this Plan. However, the task of developing this nation is ours, and no one should think that foreign assistance can replace our own effort. Foreign assistance should supplement, not replace, our own effort. With this in mind, we shall meet seven-eighths of the total planned Central Government expenditure from our own resources.

Much of the success of this Plan will depend on the attainment of the investment targets set out in Chapter 5. The Government will undertake to ensure that its own targets will be achieved. The achievement of other targets will depend on the rest of the country, people and firms, making the necessary effort to expand production on the farms and in the factories. The Government can only give a lead: the people must respond, and do their best to improve their living standards and thereby promote the development of the country. This Plan is a national economic Plan, not just a Government spending programme. Its success will therefore depend on the people as a whole—not just the Government.

CHAPTER 1—BASIC STRATEGY AND OBJECTIVES

Introduction

In Sessional Paper No. 10 of 1965 on "African Socialism and its Application to Planning in Kenya", the Government defined its commitment to certain economic objectives. These included universal freedom from want, disease and exploitation; equal opportunities for advancement; and high and growing *per capita* incomes, equitably distributed among the population. This new Development Plan—Kenya's second—is another major step towards these basic objectives.

1.2. However, in order to achieve these objectives a necessary requirement is that the national income should grow steadily and rapidly. Only rapid economic growth can enable Kenya to provide all its citizens with adequate health and educational facilities, decent housing, reasonable other amenities, and a rising income level for all. This Plan raises the target rate of growth for the economy from an average rate of 6.3 per cent, set in the last Plan and achieved from 1964-68, to 6.7 per cent through to 1974. The achievement of this goal will mean that *per capita* income will grow from K£43 in 1967 to K£55 in 1974: the average family income should grow from approximately K£270 to K£345 over the same period.

1.3. However, economic growth which takes the form of very rapid development in no more than one or two relatively small sectors of the economy is not the Government's aim. This Plan aims at a broadly based development of the whole economy, which calls for active participation by all the people in the task of nation building, as well as in enjoyment of the fruits of progress.

1.4. Chapter 2 gives an account of the progress which has been made in the period since Independence. This chapter provides a brief outline of the overall development of the economy envisaged by the Government during the period 1970 to 1974, and a brief account of the main policies which will be pursued in order to attain these basic objectives. The main individual issues discussed here are taken up in greater detail in the later chapters of the Plan.

1.5. The achievement of the basic goal of an economy 60 per cent larger in 1974 than in 1967 will be obtained mainly through a greatly expanded Government spending programme covering the whole country. The total Central Government Budget over the five years 1969/70-1973/74 will amount to some K£720 million compared with K£430 million over the five years 1964/1965-1968/69. The Development Budget over the next five years will be at least K£180 million compared with K£87 million in the last five years. 87 per cent of the proposed capital and recurrent expenditure will be financed from within the country and overseas finance will be sought for only one eighth of the total programme. For the Development Budget alone, the share of foreign resources will be approximately 50 per cent.

Basic Strategy and Objectives

1.6. The key strategy of this Plan is to direct an increasing share of the total resources available to the nation towards the rural areas. The Government believes that it is only through an accelerated development of the rural areas that balanced economic development can be achieved, that the necessary growth of employment opportunities can be generated and that the people as a whole can participate in the development process. All the people will thus be enabled to make a contribution and to see and feel they are making a contribution to the growth of the country's prosperity. The Government plans to give new meaning to the phrase "rural development"; so that the principles of African Socialism involving the equitable distribution of the benefits of prosperity can be given greater reality in a nation enjoying a higher level of general prosperity. The basic principles underlying the Government's rural development policy are set out in Chapter 6.

1.7. The investment programmes designed to translate these principles into reality are, however, to be found in nearly every chapter of this Plan: rural development should not be seen as a special programme but as the underlying strategy of the whole Plan. A raising of the levels of education and health in the rural areas, an emphasis on the improvement of the secondary road system, higher expenditures on rural water supplies, an extension of electricity rural amenity schemes and an improvement of social services in the rural areas, all represent the planned efforts of the Government to raise the general standard of rural life. In addition, there are the other integrated schemes aimed at raising the level of agricultural income and developing non-agricultural enterprise more rapidly in the rural areas.

Distribution of Income

1.8. A fundamental objective of the Government related to the rural development strategy is to secure a just distribution of the national income, both between different sectors and areas of the country and between individuals. There are at present inequalities of income between a small number of highly remunerated individuals on the one hand—large farmers, people in business, politics, the civil service and certain professions—and the great mass of the people on the other. To a large extent these inequalities stem from the colonial period of the country's history and cannot be eliminated overnight.

It will, however, continue to be the policy of the Government to ensure that the higher income groups in the population contribute increasingly, by way of taxation, towards the objective of reducing the income gap between rich and poor to a socially acceptable level within a reasonable period of time. In addition, the Government, through its rural development measures, will ensure that the standard of living of those with low incomes grows at a faster rate than the average. Thus the Government will follow the policy of simultaneous levelling downwards and levelling upwards. The increases in incomes of small farmers and businessmen achieved in the last few years indicate that substantial results can be obtained given active participation by the people.

1.9. A second major type of inequality in the distribution of income is that between the average income level in the towns and the average income level in the rural areas. In 1967, for example, wage earners in non-agricultural activities earned an average K£310, while agricultural workers, mainly on large farms, earned K£67, and workers in rural non-agricultural occupations earned only K£43. This gap between the earnings of urban and rural workers is probably larger than it was a decade ago, because in recent years there has been a rapid rise in urban wages which has not been accompanied by any comparable increase in incomes in the rural sector.

1.10. This rapid rise in urban wages has tended to aggravate the problem of migration from the rural areas to the towns. The lure of high wages in towns seems to outweigh the likelihood of being unemployed and the result has been a drift from the country-side, a rising number of unemployed in the urban areas particularly in Nairobi, and the consequent emergence of acute social and public health problems. Moreover, the rapid rise in urban wages has almost certainly had some adverse effect on the growth of employment, since there will have been cases where it has induced employers to economize on the use of labour.

1.11. The imbalance between urban and rural incomes will be rectified, first, by the use of taxation, but also by other Government measures which have the effect of raising public consumption and improving the health, education and other services available to people in the rural areas. Real incomes in the rural areas are also very much affected by the prices paid for the main agricultural crops, which are to some extent within the control of the Government, though ultimately dependent on world market trends; and by the prices paid for various inputs such as seeds, fertilizers and fuel, which the Government also has some freedom to affect.

1.12. In addition, a major contribution towards improving the distribution of income between urban and rural areas will come from the operation of an incomes policy which, among other things, regulates the growth of urban wages in a way consistent with the interests of the nation as a whole. Steps will be taken to strengthen the Industrial Court, so that its mandate will extend to all wage agreements in the private sector, as well as wage disputes that would normally be subject to its ruling now. All wage bargains will be registered with the Industrial Court, and if necessary revised by it in accordance with guidelines issued regularly by the Government. In drawing up these guidelines, the Government will take into account changes in the incomes of all sectors of the community—wage earners and non-wage earners—the employment situation, changes in the cost of living and the rate of real growth in the economy. The object is to increase all incomes, not just some.

1.13. Control of wages will be accompanied by control of prices. It will not be acceptable that a slower rise in urban wages should benefit profits, rather than the economy as a whole. The Government already controls the prices of a number of key commodities, and will continue to ensure that excessive profits are not made by firms in monopoly positions, or protected from foreign competition by customs duties or quotas. At the same time, care will be taken not to impose undue penalties on profits earned by enterprise and efficiency; for profits are an important source both of Government revenue and of domestic savings.

Taxation

1.14. Taxation will also be used to assist in the achievement of the Government's equity goals. Thus, the richer sections of the community will be expected to pay more taxes to finance Government services than the poorer sections. The existing system of both direct and indirect taxes will be adjusted to achieve greater equity, but all sections, except the very poorest, will be expected to contribute some part of the finance required for national development, even if it is only the small amount of excise charged on a box of matches. Government has set itself specific targets for the financing of the Plan which are discussed in detail in Chapter 5. Much of the revenue that will be needed will be obtained from normal growth of existing taxes but, almost certainly, this growth will not be sufficient to meet all requirements and some additional tax charges will be necessary. In formulating its tax policy, the Government will pay regard to the principles of equity and the incomes policy set out in Chapter 4 and, in addition, will aim to provide incentives and disincentives to influence the patterns and methods of production and consumption necessary to achieve the objectives of this Plan.

1.15. Considerable progress has been achieved in changing the country's taxation system in accordance with the principles set out in Sessional Paper No. 10 of 1965. The P.A.Y.E. system of income tax has been introduced for many taxpayers; the income-tax married allowance has been reduced from K£700 to K£480; excise duties now apply to a wider range of domestically produced commodities; corporation tax has replaced income-tax on company profits; dividends net of corporation tax are charged for surtax; and betting, football pools and entertainment are taxed. At the same time, the Government has relieved the poorest sections of the community from the payment of Graduated Personal Tax.

1.16. During the new Plan, Government will aim to raise sufficient revenue by taxation to cover its recurrent expenditure and, over the five years as a whole, achieve a recurrent surplus of the order of K£20 million. This will be used to finance about 11 per cent of the Government's development expenditure. Government does not, however, intend to aim at any specific surplus target in particular years and indeed, whether or not there should be a surplus, or even a deficit, in particular years will not be determined in advance. Such decisions will depend on a whole series of factors, such as the general state of the economy, the balance of payments and the relative priority attached by the Government to different objectives, which can only be assessed at the time that specific decisions on expenditure and taxation are taken. This will normally be before the annual budget.

1.17. In order to give greater impetus to the achievement of the objectives outlined in this Plan, Government proposes to raise the level of its own spending at a faster rate than was the case during the first Plan. Revenue will be expected to keep pace with this rise in expenditure, so that over the five years as a whole the recurrent surplus targets will be achieved. To judge by the past, there is no reason why such a growth of revenue should not be obtained. Over the last five years the Central Government's total revenue from domestic sources has risen by approximately 13 per cent per annum and although this increase was the result, in part, of higher import duties, the extension of excise duties and a lower married allowance for income-tax and a change from a system of company tax to corporation tax, it also reflects the larger amount of revenue that given rates of taxation yielded as the economy expanded.

1.18. The Government will be able to continue to rely heavily on the buoyancy of tax revenue in line with the growth of the economy to meet its revenue targets. It must, however, be counted unlikely that normal buoyancy will be wholly sufficient. The present heavy dependence on import duties is likely to be affected by the development of import saving industries, while the growth of income tax revenue will tend to be held back by the fact that only a limited number of people, approximately 60,000, at present pay this tax. However, further efforts will be made to improve methods of assessing people for income-tax and extending the system to the people who should be paying but have not so far been assessed. Similarly, methods of assessing the Graduated Personal Tax will be improved, so that the tax yield at existing rates is increased: the Government proposes to set up a Department of Inland Revenue for these purposes.

1.19. Nevertheless, even if yields on direct taxes are increased by improvements in the methods of making assessments, the likely slower rise in import duty revenues will mean that the Government will have to seek other ways of achieving its revenue targets. Like other developing countries, the country will probably have to look to an extension of indirect taxation to provide part of its future revenue requirements. Further extensions of the excise system must be counted likely as the range of locally produced goods widens, although Government will aim to exempt from indirect taxation commodities bought in large amounts and essential for the living of the poorer people. There are also many other forms of taxation which the Government has not needed to use so far but which will be considered in order to control the direction of the economy and achieve the objectives of this Plan.

Employment

1.20. The basic strategy of rural development, and measures affecting incomes and taxation, are directly related to specific objectives in themselves, but perhaps more particularly they are related to the planning of the economy to obtain the maximization of employment opportunities. This Plan represents the employment programme to be effected by the Government over the period 1970-74, and the achievement of the whole Plan is therefore crucial to the Government's employment policies.

1.21. In Chapter 4, the prospects for employment are analysed in detail. The conclusions of that analysis are that because wage employment in industry and commerce currently accounts for such a small proportion of the population of working age, even the most rapid conceivable rise in employment in these sectors by 1974 will not make a great deal of difference to the employment problem as a whole. The great bulk of future employment will continue to be provided in the rural areas: on large farms, on smallholdings, and in a wide variety of non-agricultural enterprises. Much of this employment will take the form of self-employment.

1.22. If this Plan is implemented in full, it will mean that the total number of wage paid jobs will increase by 35 per cent by 1974. The rural development programme will be geared particularly to the creation of self-employment opportunities and the goal for the number of non-wage jobs outside agriculture is 150,000 by 1974, that is 30,000 higher than now. If these goals are achieved a further 425,000 people will have to find a livelihood as family workers on the land over this period; the majority of these will be women.

1.23. The problem of employment is not, however, just one of numbers; for particular problems will arise as a result of the increasing numbers of children leaving school with expectations raised to personal horizons the growth of the economy will find it difficult to meet. By 1974, there will be almost 250,000 primary school-leavers a year and some 30,000 secondary school-leavers. Not all of these children can be absorbed in wage employment, and many will need to seek out opportunities for self-employment in the rural communities. Special training programmes will be set up to fit school-leavers for such careers.

1.24. The policies and programmes described in this Plan are designed to achieve certain specific goals for the nation. Where these goals cannot be achieved within the next five years because of various constraints, the programmes are designed to accelerate progress in the direction of the longer term aims even if these cannot be fulfilled completely over the next five years. There are many subsidiary aims outlined in this Plan but the principal goals are indicated below.

Primary Education

1.25. Literacy for all is one of the country's objectives: this requires that all children should get a minimum of seven years' primary school education. For this reason, free and universal primary education remains one of the Government's principal goals, and substantial progress towards this goal will be recorded during the Plan period. In 1968, approximately 60 per cent of all children of primary school age were enrolled in school; it is intended to raise this figure to approximately 75 per cent by 1974, by increasing total primary enrolments from 1.2 million to 1.8 million. Progress towards the complete abolition of school fees will continue but primary education will require large amounts of additional finance, particularly because the Government aims to replace untrained teachers by trained teachers and to expand the primary education programme in the more remote and sparsely populated areas of the country. Nevertheless, the complete abolition of primary school fees remains the Government's goal, and as a major step in this direction it is intended to extend the remission of school fees for parents who are unable to afford them, so that the proportion of children attending school free of charge will approximately double in the course of the Plan period.

1.26. There are some problems ahead in the field of primary education. One of the most pressing relates to the age at which children leave primary school: the majority, who do not go on to secondary school, are very young, and it is not desirable for them to go straight into employment, even when such employment is available. The Government will study the costs and benefits of various forms of extending primary education. One solution might be to extend the length of primary school courses by two years; but the huge amount of resources that such a step would require seems to rule it out for the immediate future. However, some alternative form of further training, perhaps of a vocational nature, may be possible, particularly in the rural areas through the medium of institutions similar to the existing village polytechnics. With regard to the quality of primary education, the standard will be raised throughout the system by uptraining and upgrading teachers and introducing a Primary Supervisory Service.

Secondary Education

1.27. By 1974, it is planned that total secondary school enrolment will be of the order of 135,000 compared with 101,000 in 1968. 195 new Forms I will be opened, but, more importantly, 166 new Forms V and VI will also be opened. The Government will make the curriculum of secondary schools more relevant to the country's social and economic needs. Increased emphasis will be placed on the teaching of science and mathematics, since larger numbers of students in these subjects will be needed for university education, to produce the required scientists, engineers, doctors, and other technically qualified people. There will also be a rapid increase in the numbers of lower secondary schools offering practical courses in agriculture, commerce, industrial arts and home science.

University Education

1.28. Enrolments at University College, Nairobi, which will become the University of Kenya in 1970, will double during the course of the Plan. The graduates trained at the University will form the nucleus of the nation's future supply of highly qualified manypower. But because university education is extremely expensive in terms of both capital and operating costs, it is essential that the courses offered should be relevant to the nation's needs. Increasing numbers of graduates will be needed who are qualified in mathematics and engineering and many branches of science. Liberal arts graduates will also be needed as administrators, teachers and so on, but the Government will ensure that the number of these are not greater than required to man the economy: unemployed university graduates are a luxury the country cannot afford. New faculties of law, agriculture and journalism will be opened before 1974. Because university education equips those who receive it for highly paid jobs, the Government proposes that university students should contribute to a significant extent to the cost of their own education, and it is mainly for this reason that students will be given loans rather than grants to pay for their fees. In order to avoid discrimination between those studying in East Africa and those studying overseas, this provision will also apply to those who receive scholarship from foreign sources for study abroad.

Manpower Development

1.29. Manpower forecasts for 1974 suggest that, on present trends, there will be too many secondary school-leavers with general qualifications, but too few with sufficient qualifications in science and mathematics. Similarly, there is a danger of more arts graduates being produced by the University of East Africa than can be employed in accordance with their qualifications, while there will be shortages of doctors or engineers. The Government proposes to ensure that in secondary schools, university, the technical colleges, rural training institutions, and other parts of the educational system, the education and training that is being provided is in line with the emerging needs of the economy. Similarly, steps will be taken to ensure that an adequate degree of vocational training is undertaken in the private sector, particularly in industry; and in some instances, a training levy will be instituted in order to ensure an equitable distribution of training costs between individual firms.

Kenyanization

1.30. The Government will press ahead with the Kenyanization of Personnel programme. Through this programme, citizens will steadily replace expatriates in jobs at present held by the latter. However, it should not be imagined that the process of Kenyanization is going to eliminate unemployment among citizens; for the number of jobs at present held by non-citizens is fairly small in relation to the number of citizens looking for jobs. In addition, there are a few areas in which the country will be short of high level manpower for many years to come. However, through the development of the education system and training, the country will become more and more self-reliant in its manpower requirements.

1.31. There are still jobs held by non-citizens which will, over the Plan period, be taken over by citizens once they have been given the necessary training on the job. Through strict regulation of work permits the Government will continue to reduce the number of non-citizens who hold jobs at the expense of qualified citizens. But it must be recognized that Kenyanization of certain posts can be a delicate and difficult process, because in many enterprises the jobs of hundreds of citizens may depend on the qualification of a few non-citizens in key positions. Foreign firms investing in Kenya will be permitted to bring key personnel when their skills are not available in the country.

1.32. Kenyanization is not, however, merely a process of replacing non-Kenyan personnel with Kenya citizens. It is the goal of the Government to ensure that Kenyans participate in all aspects of economic life in the country, not just as employees but as top management and entrepreneurs. The Kenyanization of Personnel programme will therefore be accompanied by an accelerated programme to assist citizens set up businesses of their own. Besides giving financial and technical assistance, the Government will continue to use trade and transport licensing to enable citizens to play a bigger and steadily growing role in the private sector, especially in industry and commerce. The Government will expand existing training institutions and, if necessary, set up new ones to ensure that adequate facilities exist to prepare Kenya for this advance.

Health

1.33. The Government recognizes that human productivity and happiness, depend on good health. New hospitals and hospital extensions to provide some 2,000 additional hospital beds will be built during the Plan. The Government also aims to reduce geographical imbalances of hospital facilities and to work towards a goal of one hospital bed for every 1,250 of the population in each district. At the same time, the Kenyatta Hospital in Nairobi will be enlarged to enable it to fulfil the function of a national reference hospital and to provide the teaching facilities for the training of doctors for the country as a whole. The main emphasis of the health programme is to consolidate existing facilities and to train the manpower required for more rapid expansion of facilities in the years ahead. There is no point in building hospitals when there are no doctors and nurses to staff them. 475 doctors, 1,800 nurses and 750 midwives will be trained during the Plan, but manpower shortages will still exist in 1974. The long term aim is to have one health centre for every 20,000 people but this will not be achieved in this Plan period, due to the shortage of manpower and finance. However, beyond the strengthening of the existing health centres, it is proposed to build five new ones each year and to integrate the work of the centres with hospital services and specialized programmes. Increased aid will be given to mission hospitals to enable them to continue with and improve local hospital facilities. Greater emphasis will be given to maternal and child care to reduce the hazards of life and health associated with childbirth. Family planning education facilities will be extended, so that by 1974 they will be available to all who wish to take advantage of them. Greater emphasis will be given to preventive medicine. A major aspect will be improved environmental sanitation services and greater efforts to control communicable and insect-borne diseases.

Housing

1.34. A determined effort will be made to reduce the acute shortage of urban housing, particularly low-income housing. Total investment in housing during the Plan period is projected at over K£53 million of which K£27 million will be spent directly or indirectly by the Central Government. This is one programme in which the greater emphasis will fall in the urban areas where 85 per cent of the total expenditure will take place. Some 10,000 housing units will be built in Nairobi and 2,000 units in Mombasa. Nearly all will be low-income housing.

1.35. Rural housing improvement will not, however, be neglected and for the first time the Government will provide technical services and advice for the improvement of rural housing as well as earmarking K£1.2 million for rural housing improvements. New techniques for low-cost housing will be developed during the Plan.

Water Supplies

1.36. The Government will make a determined attack on the problem of rural water supplies, which it accepts has been seriously neglected until very recently. Part of the problem in the past was that rural water development was the responsibility of County Councils which, for various reasons including shortage of finance and technical manpower, were unable to achieve much in the field. The Government took over the direct responsibility for rural water development in 1968. Since then, preparations have been made for, and the Government proposes to undertake a vigorous expansion of water installations in the rural areas for both human and animal husbandry needs. Total investment in water over the Plan period will be tripled, while the Government's own contribution will be increased five times compared with 1968/69. The Water Development Division of the Ministry of Agriculture will be strengthened and a master plan will be drawn up to identify projects and priorities. Government will undertake construction of water schemes itself where this is necessary, up to 25 district water teams being available to accelerate the programme and to guide self-help groups in organizing water schemes for themselves. The development of rural water supplies is regarded as an important component of the overall rural development strategy.

Agriculture

1.37. The nation's agricultural target is to raise production by over one-third in five years. The Government will assist in the achievement of this goal by the provision of facilities to lift the overall efficiency of agriculture to a higher level. Unused and mismanaged land will be brought into production by the settlement of 33,000 new farmers. A Land Use Committee will be set up to advise on the rational allocation of land between alternative uses, such as agriculture, forestry and wildlife. Limits will be imposed on the amount of individual land ownership to facilitate efficient management and maximum utilization. The Land Use Committee will examine the problems of resettling people from the high density population areas to low density areas. A programme for land adjudication covering 7½ million hectares, of which 2½ million will be in agricultural areas and the rest in range areas, has been laid down for the Plan in order to facilitate land development.

1.38. The Government recognizes that lack of agricultural credit has been an important constraint on agricultural development and aims to inject a total of K£4.7 million into the agricultural credit programme by 1974 and to find ways to overcome the serious problems facing the provision of credit to small-scale farmers. Agricultural productivity will be assisted also by a further expansion of the agricultural education programmes and a reorganization of the extension service to increase its effectiveness.

1.39. Agricultural research will be geared more closely to immediate productivity requirements, with special programmes to find varieties of coffee resistant to coffee berry disease and to improve yields of cereals and other crops, such as potatoes and oilseeds. New research will be undertaken in the field of farm mechanization, while livestock and veterinary research will be given greater emphasis.

1.40. In terms of physical targets, major production goals include 610,000 metric tons of maize, 230,000 metric tons of wheat, 40,600 metric tons of rice, 64,000 metric tons of coffee, 45,750 metric tons of tea, 20,000 metric tons of cotton and 1,750,000 metric tons of sugar cane. Livestock production also has higher goals but the main aim for that industry is to modernize production by the introduction of closed ranching techniques to replace traditional pastoral practices. Ranching schemes will be set up in Masai, Taita, Kilifi and the Northern Districts. The higher production achievements from this change will be realized some time after the end of this Plan period.

1.41. Irrigation schemes will be expanded at Mwea, Perkerra, Galole, Ahero, Kano and Buyala. Tea schemes will be extended by 14,000 hectares, mainly in Central and Western Districts. More generally the strategy of rural development will mean an intensification of Government efforts to raise agricultural productivity in all areas.

Industry

1.42. The Government aims to achieve a major expansion of industrial production by 1974. The target is an increase in output of over 70 per cent compared with 1967. A pulp and paper mill will be erected at Broderick Falls, a motor tyre factory in Nairobi and a lubrication plant at Mombasa. But most of the expansion will be derived from existing factories, such as meat, grain milling, canning, sugar, beer, textiles, chemicals, etc. The production target will require a total investment of some K£100 million, mainly by the private sector, and the Government aims to give every encouragement to the private sector to achieve this goal. If the country is to consolidate and extend its position as a producer of manufactured goods, there must be a gradual shift towards a more sophisticated pattern of production which will displace imports from the industrialized countries. More attention will be paid to the training of the management, professional people and skilled manpower which this process will require.

1.43. At the same time, simpler opportunities will not be neglected. There is still scope to expand the processing of Kenya's own foodstuffs and agricultural raw materials, to supply both home and export markets. Similarly, there is scope to manufacture locally a range of relatively unsophisticated products which have traditionally been supplied from overseas, and which, if mass-produced locally, could satisfy many of the growing demands for consumer goods both of Kenya's own population and of other countries in the region. Government will take a more active part in the industrialization process in future. Protection of developing industries will be used when this is necessary to enable the local industry to have a fair start against established overseas producers. But in addition, industrial surveys and pre-investment surveys will be undertaken directly or sponsored by Government in order to identify feasible industrial opportunities that have so far been neglected.

Transport

1.44. The Government has already created a network of good trunk roads throughout the country although the construction of some parts of this system will not be completed for another few years. The next goal in this field is to obtain a substantial improvement in the secondary feeder road system so that people in the rural areas can move more freely and get their crops to market in all weather conditions. K£43 million will be spent on road improvement during the new Plan compared with K£20 million in the last five years. 4,700 kilometres of roads will be involved, covering practically every district of the country, while an additional 4,500 kilometres of special development roads—tourist roads, tea and sugar roads—will be improved as well. This will represent the most ambitious road programme ever envisaged in Kenya.

1.45. The goals of the transport plan extend beyond the building of roads. The Government also aims to invest K£7.4 million in the enlargement of airports to meet the expected growth in air traffic over the next five years. Much of the expenditure will be directed towards the further development of Nairobi Airport; but Mombasa Airport will also be substantially improved, so that international flights can land there directly. Improvements will also be made to Kisumu, Wilson and Malindi airports and to numerous airstrips around the country. New aircraft including a new Super VC 10 will be introduced by East African Airways whose international services will be extended to other parts of the world.

1.46. The Railways system will need to be improved considerably by 1974 to meet the expanding demands of the economy for long transport hauls. An investment programme of K£22 million will be undertaken in Kenya by the East African Railways to achieve these improvements. These will not involve major extensions of the rail system, but improvements in the existing permanent way and rolling stock.

1.47. Two new berths will be required at the port of Mombasa by 1974 as well as the rebuilding of Mbaraki pier to handle bulk cement and maize exports. This development will allow an expansion of the port operation by an average rate of 10 per cent which is in accordance with the requirements of the economy.

Tourism

1.48. Tourism has been the most rapidly expanding industry during the last Plan period, and substantial economic benefits have been derived from the money spent by foreign tourists in Kenya. These expenditures provide stable markets for farm produce, and employment in hotels, transport firms and other service industries, while the foreign exchange obtained significantly lowers the country's dependence on foreign capital for development. For these reasons, the Government has set ambitious targets for the tourist industry in 1974. These involve the industry continuing to grow at a faster rate than any other in order to push up its foreign exchange earnings from K£16 million in 1968 to K£37 million in 1974. This important goal will require the building of some 5,000 new hotel beds, new roads, airport improvements and substantial investment in transport services. The industry must aim to attract

2.3 times as many foreign tourists in 1974 as in 1968. The Government will support the achievement of this goal by providing necessary infrastructure and by being prepared to assist in the finance of the required hotel and lodge development.

Local Authorities

1.49. Local Authorities have up till now been responsible for a number of important public services, in particular primary education, local health centres, and secondary and minor road maintenance. The efficiency with which these services have been handled by local authorities has varied considerably. Generally, the municipalities have carried their responsibilities well but many County Councils have been faced with severe difficulties owing to shortage of finance, and a lack of administrative and technical manpower necessary to operate the services at the required standard. The Government is therefore faced with the dilemma that, on the one hand, it is anxious to strengthen the participation of the local people in the administration of local services, while on the other, it has a responsibility to ensure that basic services are available to all districts, not just those that succeed in administering them better than others. In some districts, teachers have not been paid, health services have deteriorated and road grants have been used to finance services other than roads.

1.50. In this difficult situation, the Government has decided that its first duty must be to ensure that the people are provided with the basic services of primary schools, health centres and roads. The Government cannot allow the present unsatisfactory situation to continue, and proposes that as from 1st January, 1970, it will take over the running of County Council primary schools, health centres and road maintenance services. These three services are the main burdens of the county councils and the most fundamental requirements of the local people. The County Councils will therefore be able to concentrate on improving the efficiency of their remaining services. The Government's goal is to raise the level of efficiency of the three services it is taking over to a uniform level throughout the country.

District Balance

1.51. Allied to the role of the local authorities is the problem of securing a satisfactory balance between developments in different districts. It is a major aim of the Government to prevent economic development being concentrated in the towns at the expense of the rural areas, but it is also a major concern to ensure that some districts—particularly those which are already poorer than the others—do not continue to lag behind. It will be a continuing priority on the part of individual Ministries to bear the requirements of the poorer districts in mind when formulating projects in the rural areas; similarly the Government will take account of the relative urgency of the needs of particular areas in making financial resources available, and in allocating personnel. The takeover of the three largest services from the County Councils and the range management programme will lead fairly soon to considerably higher cash incomes in some of the poorest areas of the country. The rapid expansion of the rural water programme will also be of particular importance for many of these areas.

Urban Development

1.52. The emphasis given to rural development in the Plan will not, however, be allowed to obscure the fact that substantial resources will also have to be spent on developing the towns. However successful the Government's efforts to increase the pace of rural development and to slow down the exodus from the country-side to the towns, the urban population of Kenya is bound to rise during the next few decades at an exceedingly rapid rate. Government policy will have to satisfy two overriding requirements if it is to meet the challenge posed by this rapid growth.

1.53. First, it is important that the growth of the urban population should be distributed over a relatively large number of centres and not mainly concentrated on the two biggest towns, Nairobi and Mombasa. Severe problems would be posed, for example, by the explosive growth of population in Nairobi implied by acceptance that the bulk of the future urban population will be concentrated there. But even more important than the need to avoid the negative consequences of concentrating the growth of the urban population in one place is the positive need to provide a number of different focal points in different parts of the country. Rural life cannot be complete without towns any more than towns can be complete without access to the country-side, and it will be an objective of Government policy to promote the growth of a number of towns to a size where they are large enough to provide the people of the surrounding districts with many of the facilities and amenities available in a modern city. Work on the identification of centres with high growth potential has been in progress over the past two years and this Plan contains a provisional list of towns and growth centres which will provide the basic urban framework for the future. New factories and other enterprises will be grouped in the designated growth centres, and thus act as a stimulus to the further growth of output and employment, instead of being increasingly concentrated in Nairobi or scattered at random around the country-side.

1.54. The second major problem of achieving a satisfactory pattern of urban development lies in ensuring an orderly expansion of all the necessary social infrastructure at a rate sufficiently rapid to keep pace with the rise in population. The world is full of towns which have been permitted to grow in an unplanned way. The Government is determined that the rapid growth of urban centres shall not result in the mushrooming of shanty towns and urban slums with all the dangers inherent in the inadequate provision of new housing, health and educational facilities, water and sewerage systems, road networks and power supplies. Accordingly, considerable resources will have to be spent by the Central Government, by parastatal organizations, and by the municipal authorities in the towns concerned, in providing the necessary facilities and in co-ordinating the growth of these facilities with the growth of population.

East African Community

1.55. It is the policy of the Government to strengthen its economic ties with Kenya's East African partners. Kenya is determined to ensure that the East African Treaty is implemented in full and made to work. Kenya will also work towards the development of the Community to a true economic union where movement of people and goods is absolutely free. The Government looks forward to the time when the Community will be enlarged to include the neighbouring states. Negotiations are already proceeding on the best way to associate some of these countries with the East African Community. It is Kenya's hope that substantial progress on this front will be made early in the Plan period. The Kenya Government will continue to encourage a wider degree of economic co-operation in Eastern and Central Africa, with the ultimate objective of securing such co-operation on an ever-expanding and eventually continental basis. In the last resort, the economic development of Kenya, as of other African countries, will depend on the faith and energy of its own citizens. Only within the framework of collaboration with neighbouring countries, and a determination to tackle common problems in a spirit of co-operation and compromise, can such development proceed at the fastest possible rate.

Balance of Payments

1.56. The policies and goals outlined in this Plan will require a very substantial increase in Government spending which will of itself induce a much higher level of overseas imports. The higher rate of production growth will be dependent on the higher level of investment, much of it investment in imported machinery and equipment. The higher level of incomes and production will induce yet more imports. Where possible, it will be Government policy to encourage the setting up of import saving industries and, where desirable, Government will control the importation of unnecessary luxuries. The Government will also endeavour to obtain a vigorous expansion of exports. But even on fairly optimistic assumptions, exports are unlikely to increase by more than 50 per cent over 1967 (at current prices) while imports will almost certainly increase by some 75 per cent. Although the balance of services should improve, there will be a substantial deterioration in the overall current account balance. There is, therefore, an inescapable choice between cutting down on the rate of investment and the growth of incomes, and seeking finance from overseas to cover the inevitable balance of payments current account deficit.

1.57. Although the Government's goal is to finance as much as possible of the country's development from its own savings, it does not propose to reduce the investment targets, and thus the growth of national income. Accordingly, the Government aims to finance approximately one half of the Central Government development programme from overseas.

1.58. Whether or not the required amount of aid is forthcoming is not within the power of the Government to determine. All it can do is to plan on the basis that it will be, and on reasonable terms. The country's foreign debt servicing problem is not yet a serious one, although it could become so in future, if the growth of exports falls below expectations, or if world interest rates remain at the very high levels to which they have been driven up over the past year or two. Therefore, the lower the rate of interest on loans received from abroad, and the longer the repayment period, the better. It is also of great importance that aid should be available to cover the general foreign exchange requirements that will be created by local cost expenditures on such items as education and rural development and not tied to the identifiable procurement of goods from particular countries. Some of the aid which has been received by Kenya in the past has proved unusable because of the stringency of the conditions imposed.

Private Foreign Investment

1.59. Similarly, the success of the Plan will be dependent in part also on the ability of the country to attract private overseas capital on reasonable terms so as to cover the remaining balance of payments gap. Overseas investment in the private sector must be significantly higher in the next five years than it has been in the past five years. Accordingly, programmes to assist the growth of Kenyan-owned enterprise do not mean that Government will not continue to welcome foreign enterprise. It is estimated that, if the output of the private sector is to grow as fast as necessary to achieve the target growth of national income, an investment of some K£440 million by the private sector will be required. Chapter 10 indicates that some K£100 million investment is likely to be required in the manufacturing industry alone, and other parts of the private sector, particularly transport and other services, will require substantial finance as well.

1.60. Although strenuous efforts will be made to increase domestic savings, these will be insufficient to meet private investment targets of these dimensions, and a proportion will have to be financed from abroad. Fortunately, foreign capital has shown great interest in the country in recent years, and should continue to do so during the new Plan. The country is reasonably well equipped with most of the modern facilities required by international companies, and has great potential both as a supplier of goods to a large part of Africa, and as a tourist resort. It has incorporated in its Constitution and in the Foreign Investment (Protection) Act provisions that assure foreign investment of satisfactory guarantees on repatriation of profits and capital. The Constitution also guarantees full, prompt, and fair compensation in case of nationalization.

1.61. While the Government has always made it clear that foreign private investment is welcome, subject naturally to certain safeguards to prevent an undue proportion of the country's industry being controlled from abroad, the time has come for more active and co-ordinated efforts to be made to attract foreign investment, by providing potential investors with more information on economic prospects, and stressing the favourable and profitable conditions on which such investments can be made. The Government is studying ways in which worthwhile investment might be attracted, and the kind of machinery that would be most suitable for assessing particular investment proposals from foreign interests. In any case, collaboration will continue to be needed between foreign firms and the Government, and there will be obligations on both sides if development is to proceed rapidly. Foreign firms will be expected to co-operate with the Government's location of industry policy, for example, and to retain expatriate key workers from abroad for only so long as is necessary to train Kenya citizens to do the job.

Self Reliance and National Self Help

1.62. The fact that Government proposes to seek part of the finance for its own financial programme from abroad and is encouraging private foreign investment is not incompatible with the fundamental Government goal of economic independence. Economic independence does not mean severing of all economic ties and transactions with other countries. Indeed, for the world as a whole, more economic interdependence, which, however, recognizes the needs of the poor as well as the rich, will lead to more welfare for the international community. So long as we in Kenya are making the maximum use of our resources in the task of development, are able to formulate and execute appropriate economic and political policies, control the use of foreign resources in our economy, the number and way foreigners work and the amount of money foreigners can take out of the country, we have not sacrificed any part of our independence. Further, we must not forget that real independence requires that all the people should be well fed, adequately housed and clothed and able to enjoy some of the simple luxuries of life which are now considered essential in the more developed parts of the world. The achievement of even this limited aim, however, requires a substantial further advance in the country's economic development. This development can only be achieved by a substantial increase in the rate of investment, leading to more jobs being created, production increased and income levels lifted to the point where each individual can regard himself as independent. The attainment of the income and employment targets in this Plan depends to a significant degree on the country obtaining physical resources from abroad to supplement its own effort. Without making use of these physical resources, machinery and supplies—and to some extent skilled manpower—the country cannot develop as rapidly as planned. The Government will therefore endeavour to obtain from abroad the resources necessary to achieve the national goals.

1.63. An important purpose of this Plan is for Government to show the way to a better standard of life for the people. In the end, however, whether or not the Plan is a success will depend on the people's following the path outlined by the Plan and on their being prepared to intensify their own efforts to improve their own standards. Government will undertake the development programme outlined for it in the Plan document. However, this programme can only be an inducement to the private sector to fulfil its part and to the people, as producers, to take advantage of the opportunities that will open up to them as a result of this investment programme. The opportunities will be there—it will be for the people to seize them. In this way, the country will be developed, incomes will rise and new savings will be generated domestically for future investment. The country's own efforts will be rewarded and its need for assistance from overseas will in future be less as production expands. The Government aims, therefore, to help the people help themselves and proposes to give clear guidance to the people where this is needed.

1.64. The grass-roots efforts of the people to improve their conditions of living by self-help effort made a significant contribution to development during the last Plan period. The Government aims to give greater assistance to these efforts during the new Plan. The Government will also ensure that these efforts are planned more carefully, so that the people's efforts are not needlessly wasted by rushing ahead with projects which have little hope of success or which cannot be financed or staffed on a regular basis when they are completed.

1.65. Local communities will meet the running costs of their own projects to a greater extent in future, but all local self-help projects will be subject to the clearance of the District Development Committees. Much stricter control, in particular, will be exercised over the building of *Harambee* schools, so that their locations are planned in accordance with overall education goals. An integration of rural training facilities is an important goal for the new Plan. Multi-purpose local training centres to be known as District Development Centres will be set up as experimental institutions to integrate training programmes for farmers, co-operative members and staff, traders and other local activities. If these experimental centres are a success, they will be extended to all districts of the country. Self-help should not, however, be seen merely as the building of schools, health centres and other construction works. It should also be seen as the efforts of everyone to increase national productivity, so as to achieve the production and investment targets set out in this Plan.

CHAPTER 2—AN ASSESSMENT OF PROGRESS SINCE INDEPENDENCE

The 1964-70 Development Plan

Kenya achieved Independence on 12th December, 1963 and the Government presented its first Development Plan to Parliament on 10th June, 1964. Although this plan was designed to cover the period 1964-70, it was drawn up in considerable haste, for speed was necessary if there were to be a Plan for development in the crucial post-Independence period. Such haste meant that the document was drawn up before much basic analysis of the economy's requirements could be carried out and before the Government had had an opportunity to develop the broad guidelines of policy in the economic and social field. Inevitably, therefore, it had to be regarded as an interim document and it was proposed, even then, that the first Plan document (the "Red Plan") should be modified by another as quickly as possible after its publication.

2.2. The second document (the "Green Plan") was published in the middle of 1966 and was designed to cover the same period as the first, that is the years up to 1970. The new document attempted to improve the project content of the Plan and to weigh the effects on the economy more carefully. In the two years following Independence considerable thought had been given by Government to the structure of the planning organization required in Kenya, as well as to some of—although not all—the basic policy questions facing the country. Further consideration led to the raising of Plan targets, both for overall economic growth and for capital investment, compared with that set down in the "Red Plan". The purpose of this chapter is to assess in broad terms how successful the country has been in moving towards the targets it set itself for the year 1970. Since it is still some way away from the completion year of 1970 and statistics are not available beyond the year 1968, this is not always straight forward, but it is possible to assess progress towards the targets set. This chapter cannot, however, review every aspect of the country's Development Plan if it is to be restricted to a reasonable length. Further, it is in some cases convenient to review particular programmes within the content of the on-going programmes for the next five years in the sector chapters of this Plan.

2.3. The chapter must necessarily consist in the main of statistical analysis of economic development over the period 1964-1968. Not all of this analysis may reflect as favourable a picture as Kenya would like but it should be said from the outset that the overriding impression of Kenya over these years has been of steady progress towards greater prosperity. This does not mean that Kenya has become a rich country in four or five years, but there is no doubt that the people as a whole are better fed, better clothed and to some extent better housed than they were five years ago. Conditions of life have improved and although the country has generally enjoyed a series of favourable years as regards the weather and other factors influencing the harvest of food crops, sufficient progress has been made in agricultural productivity to insulate the country, to a much greater extent than formerly, from widespread food shortages arising from poor harvests.

2.4. Mention must also be made of the impact of self-help development through community development schemes. There will later in this chapter be an attempt to measure this impact on total capital investment in the country as a whole, but of greater importance was the change in the attitude of the people to economic development in the post-Independence period. The national motto of *Harambee*—pull together—has been realized in numerous small local development projects all round the country. The more spectacular of these projects are seen as hospitals and schools but it is the mass of numerous small projects which represent the self expression of the people in giving up time and money in order to work together to improve their own conditions of life. Three hundred and thirty-six *Harambee* secondary schools were built between 1964 and 1968 which has had a significant impact on the expansion of education described below. To some extent, it must be admitted that the self-help movement suffered from over-exuberance and it became necessary to exercise some control over the initiation of new projects, so that work was not started by self-help groups on ones that could not be completed or which could not be financed on a recurrent basis when they were completed. But the exercise of this control through local District Development Committees has done nothing to check the overall impetus of self-help community development: it has merely channelled the effort into socially more useful projects.

The Formulation of New Policies

2.5. Development should not be measured purely in terms of progress towards specific economic goals, defined in statistical terms, although this is certainly necessary. It should also be considered in terms of the social and political goals that the country has set itself, even though these cannot always be measured as easily as economic targets. Some of the most noteworthy development achievements over the period 1964-68 were the formulation of policies within which programmes could be drawn up for the future. Sessional Paper No. 10 of 1965 entitled "African Socialism and its Application to Planning in Kenya" was a key document in this respect, for it defined the meaning of African Socialism which had been the expressed basis of all policy since the election of the KANU Government in 1963. It also examined the practical measures needed to implement African Socialism within the Development Plan, measures which found expression later in the "Green Plan". The document proposed that economic policies in the future would not be defined in terms of traditional tribal practices or of socialism as defined by some other publication or other country: it stated that Kenya as an undeveloped country setting out on its Independence, must find its own solutions to its own particular problems in the context of its own historical traditions; it would not merely pick someone else's solutions and hope that they would always fit. The Sessional Paper on "African Socialism and its Application to Planning" was, however, perfectly frank in saying that the Government proposed to adopt an eclectic attitude to the formulation of policy and that the declared philosophy of political non-alignment did not mean that other countries' solutions would never be adopted where they were considered appropriate to Kenya's own needs.

2.6. The evolution of Kenya's relations with its East African partners was a strong influence on events over the period 1964-1968. Soon after independence in 1963, considerable discussion arose over the informal arrangements that had governed economic relations within the East African Common Market for many years. It was felt that the economic benefits derived from the Common Market and the East African Corporations were not distributed equitably amongst the members. Although undue emphasis may have been given in these discussions to the overall imbalance of trade and, particularly, to the imbalance of manufacturing trade, both of which were ascribed to the existence of the Common Market, the fact remains that Kenya's partners in the Common Market were not prepared to continue with the arrangements then existing. It was, therefore, necessary to negotiate a more formal agreement. The Kampala Agreement of 1964 covering East African trade was intended to reduce the imbalance of trade that existed in Kenya's favour and to promote more balanced industrial growth in the three East African countries. This Agreement could not be counted a success for any of the partners; for apart from the fact that in large measure it was never implemented, it was followed by a period of severe trade restriction and only limited progress towards a more equitable but economic distribution of industry. The immediate economic consequences of the period of the Kampala Agreement are discussed later in this chapter but of greater importance was the subsequent development of policy, which led to the inauguration of the East African Community on 1st December, 1967. The negotiation of the Treaty that opened the way for the Community was one of the more important development landmarks during the first planning period, not because it has affected growth rates or capital investment to any significant degree but because it has provided a formal framework within which Kenya can develop its relations with its neighbours in the next planning period. The Treaty covered, not only new trading arrangements and provided for the imposition of transfer taxes by those countries whose overall trade was in deficit, but also formalized new political institutions for the government of the East African Community, made new arrangements for the organization of the East African Corporations, created an East African Development Bank and new institutions to arbitrate economic disputes between the partners. The Treaty represents another most important policy document drawn up—together with Uganda and Tanzania—during the Plan period under review.

Kenyanization of the Economy

2.7. There are numerous aspects of life in Kenya which experienced significant development in the years 1964-68 which cannot be reflected in statistics of growth or are so reflected only in part. Amongst the most important of these can be counted the development of high-level manpower able to take charge and operate the various institutions necessary to run an economy in the modern world. At the time of Independence, Kenya lacked much of the trained manpower necessary to run an economy without considerable assistance of specialist manpower from overseas. One of the first major programmes of the Government, even before Independence, was to embark on a crash programme of secondary school expansion and high-level training in order to increase, as fast as possible, the supply of trained manpower to run the economy independently of outside assistance. This problem can hardly be exaggerated, but partial success can be measured by the fact that nearly all of the senior posts in the public service, previously dominated by expatriate civil servants, have since been filled by local citizens. In the private sector, "Africanization" has not gone as far, since Government has tended to have first choice of the available manpower, yet has still advanced appreciably. In 1967, sufficient manpower was becoming available for Government to introduce a special programme for the private sector in the form of the Kenyanization of Personnel Bureau and a system of work permits for non-citizens.

2.8. Over the period 1964-1968, the shortage of trained manpower was therefore a serious constraint on development and to some extent, the constraint still remains, for, although most "management" or policy determining posts in the public sector are now filled by citizens, a significant share of professional and sub-professional posts must still be filled by overseas recruitment. The position in the private sector remains comparatively worse in this regard.

Table 2.1 PROPORTION OF HIGH AND MIDDLE LEVEL POSTS FILLED BY KENYA CITIZENS, 1967

	Percentage of Total Posts in Category		
	Private Sector	Public Sector	Whole Economy
Category A	28·2	45·3	34·6
Category B	46·7	73·5	57·0
Category C	47·3	72·2	54·5
Category D	64·3	83·8	70·1
All High and Middle Grades ..	52·9	72·9	59·4

NOTE—Category A—Professional occupations requiring University or higher education.
B—Sub-Professional and technical occupations requiring Form IV or VI education with two or more years of training and experience.
C—Occupations requiring roughly Form IV education and three or more years of job experience.
D—Occupations requiring a minimum of Form II education and two or more years training and job experience.

2.9. Kenyanization has not, however, been interpreted only in terms of wage employment. Employment growth rates will not show that some 47,000 African families are now farming independently on land previously owned by 2,000 Europeans. Neither will they show that the more intensive use of the land enables 74,000 people to find a means of livelihood, either through land ownership or wage employment in the same geographical area that 20,000 wage earners did previously. Over 50 per cent of total marketed agricultural produce now comes from small farms operated by Africans compared with 40 per cent in 1964. In addition, part of the half produced by large-scale farmers represents production by African farmers.

2.10. Although a review of progress of the agricultural industry must inevitably be abbreviated, it is useful to summarize the progress made in respect of the transfer of agricultural land from non-citizen ownership to citizen ownership since this was an important part of Government policy as well as a factor in the development of agricultural production. The impact of land resettlement programmes on the transfer of land was as follows:—

LAND TRANSFERRED TO AFRICAN USE UP TO 1968

Table 2.2

Type of Scheme	Acres Transferred to Africans	No. of Farms Established	Average Size of Farms Established
	(Acres)	*(Number)*	*(Acres)*
1. Sub Divisional Type Settlements:			
High Density Schemes	788,000	26,700	30
Low Density Schemes	188,000	5,200	36
Squatter Settlement	86,000	14,000	6
TOTAL	1,062,000	45,900	23
2. Large-Scale Farms:			
AFC, ADC, Assisted Owners, etc. ..	953,600	1,192	800(*a*)
Ol'Kalou Salent	121,000	19	6,368(*b*)
Other Co-operative set up by Department of Settlement	170,000	15	11,333
TOTAL	1,244,600	1,226	1,015
TOTAL	2,306,600	—	—

(*a*) The average size of farm is approximate.
(*b*) These farms are owned and presently operated by the Department of Settlement.

2.11. The effect of those land transfers has in part to be measured in political terms reflecting the Government's declared aim that the countries economic assets should be controlled more completely by citizens. There has, however, also been economic effects. It would seem that production from the transferred land has increased and that additional employment has been created by the land transfer programme. Prophecies of a marked drop in production and employment as a result of this programme have not been borne out while steady improvements have been recorded each year in overall levels of production.

2.12. In commerce, trade licences are being reserved for Africans in most of the rural areas of the country and sections of the urban areas, including parts of the City of Nairobi, have been scheduled as ones in which only citizens may be granted trade licences. It is at this stage too early to measure the effect this has had on the distribution of retail turnover as between citizen owned firms and non-citizen owned firms. In 1966, 44 per cent of retail turnover and 27 per cent of wholesale turnover was handled by Kenya citizens or firms mainly owned by Kenya citizens. Control of trade licences will have started to increase these shares. In addition, retail trading in over 20 specified commodities has been reserved for African traders. Commodities included in these regulations are maize, and maize meal, sugar, charcoal, rice, soap, matches, sweets, salt, grey cloth, cement, corrugated iron sheets, cigarettes and kerosene.

2.13. Government policy towards traders licensing and the reservation of commodities for certain types of traders must be seen in the historical context of retail trade in Kenya. At the time of Independence, virtually no retail trade was in the hands of Africans and it was therefore, an important part of Government commercial policy to introduce African traders into retailing and to give them an opportunity to learn the techniques involved by reserving for them trade in a few commodities in general consumption, largely by the African population. The effect of the policy towards traders' licensing and the restrictions on trading in certain commodities has not been as widespread in economic terms as was sometimes feared. The programme of reserving retail trade for Kenya citizens has been pursued gradually and the policy is, in any event, only a short-term plan to correct the previous imbalances.

The Expansion of Education

2.14. The transformation of the economy from one controlled largely by foreigners to one firmly controlled by Kenya's own citizens requires a very rapid and substantial expansion in the number of people who have the basic education necessary for training in specialized careers. To this extent, the education targets included in the 1964-70 Plan were amongst the most important of all, particularly as, in so far as education widens the horizons of people generally and contributes to their social development, it is in itself an index of human development. The 1964-70 Plan projected the general growth in the number of children in primary schools by 8.0 per cent and the number of children in secondary schools by 11 per cent. Over the period 1964-68 primary education, as measured by total enrolments, expanded by 5.5 per cent per annum and secondary education by 30 per cent per annum.

ENROLMENT IN ALL PRIMARY SCHOOLS

Table 2.3 *Number of Pupils*

	1964	1968	Target 1970
Std. I	180,290	250,757	322,225
Std. II	144,786	207,755	245,142
Std. III	139,727	178,537	195,564
Std. IV	145,004	158,899	168,851
Std. V	134,031	132,701	158,934
Std. VI	122,603	134,247	146,086
Std. VII	114,408	146,784	122,329
TOTAL	980,849	1,209,680	1,359,131

ENROLMENT—SECONDARY SCHOOLS

Table 2.4 *Number of Pupils*

	1964	1968	Target 1970
Form I	12,712	35,624	17,600
Form II	9,122	28,467	15,800
Form III	7,035	19,547	14,300
Form IV	5,625	14,565	13,000
Total Forms I–IV ..	34,494	98,203	60,700
Form V	864	1,769	2,500
Form VI	563	1,389	2,300
Total Forms V–VI ..	1,427	3,158	4,800
TOTAL	35,921	101,361	65,500

2.15. The contribution of *Harambee* effort has been particularly significant with respect to the expansion of secondary school education. Since Independence, a total of 336 secondary schools have been built as a result of self-help effort. Seventy-three of these schools have since been taken over by the Central Government but in 1968 there were still 263 secondary schools built by the local people which were still unaided by the Central Government. These accounted for over 25 per cent of the total secondary schools enrolments in the country. Many of these schools comprise only one or two Forms, which is the reason for the substantial expansion of Forms I to IV shown in Table 2.4 and the fact that, whereas the 1970 targets for enrolments in Forms I to IV were already exceeded in 1968, the enrolment targets for Forms V and VI are still some way off achievement. It is very much more difficult to set up Form V and VI streams without the assistance of the Central Government than it is to set up junior forms. In any case, substantial difficulty has been experienced setting up Forms V and VI at an adequate standard, particularly for science streams. It is however clear that without the contribution of *Harambee* groups, the expansion of secondary education would have been significantly less than was, in fact, the case.

Statistical Comparisons

2.16. In the end, whether it is entirely rational or not, an economic development plan is judged by whether or not the predetermined macro-economic targets are achieved. These statistical measures of the structure and growth of the economy have become the principal international criteria of success of development plans and although the assumptions implicit in placing so much importance on such measures can be questioned, it is necessary to consider the development of the economy in detail in this way. These measures are largely statistical which means that much of the remainder of this review chapter must consist of a statistical measurement of economic progress.

2.17. Before turning to these measures it is however necessary to comment on the development of statistics in Kenya since both the "Red" and "Green" plans were drawn up. Since that time, as envisaged in the "Green Plan", a complete revision of the national accounts has been undertaken which has involved, firstly, a basic remeasurement of the size of each industry and sector of the economy; secondly a careful measurement of the rate of growth of each industry/sector at current prices; thirdly an estimation for the first time of gross domestic product and capital formation at constant prices; and fourthly an estimation of the use of resources available in the economy. The effect of all these improvements in statistics is that it is now possible to examine the progress of the economy more systematically and more accurately. It does, however, create serious problems for comparisons of new data against that included in the earlier plans based on the old statistical series. As far as possible, comparisons of progress in this chapter are based on comparison of current revised statistical series against Plan projections adjusted from those published in the "Red" or "Green" books to take into account the assumptions underlying the original projections or targets. If such adjustments were not made it would mean, in some industries, that Plan targets were achieved simply by token of a new and higher estimate of the size of the sector which would be meaningless.

The Growth of the Economy, 1964-68

2.18. Accordingly, Plan projections of gross domestic product have been adjusted on to the same basis as the new estimates now in use. This adjustment was carried through by projecting the new calculations of product by industry with the rate of growth used in the published (Green) Development Plan. As a result of weighting effects, this has the effect overall of reducing the planned rate of growth from the published average of 6.3 per cent per annum to an average of 6.2 per cent per annum. It might be argued that this is not the best way of adjusting the planned rate of growth, since in a number of industries the growth of product was originally estimated as an absolute amount and the rate of growth derived from that. If such increases in product by industry as projected in the Plan were added to the revised 1964 estimates of G.D.P., the overall effect would have been to reduce the planned rate of growth from 6.3 per cent as published to 6.0 per cent, as a result of the fact that the revised estimates increased the overall size of the economy. For this reason the (higher) rates of growth of individual industries published in the 1966-70 (Green Plan) are used here to compare the progress of individual industries against the published Plan projections.

2.19. The revised series of gross domestic product, the principal measure of economic growth, increased at an average annual rate of 6.8 per cent at current prices between 1964 and 1968. As a result of price increases, this represented a rate of growth of 6.3 per cent in terms of constant (1964) prices, that is, almost exactly the same as the planned rate in the (Green) 1966-70 Plan. The economy has, therefore, performed as well as expected in this regard overall, although some industries have done better than expected and others not so well. Since the economy has been maintained on the projected trend, the achievement of an average rate of growth of 6.2 per cent in the last two years of the Plan period will be required to achieve the increase in national production planned for 1970, apart from any acceleration that will be required by this new Plan. Provided harvests are reasonable, this rate is within the capacity of the economy to achieve.

2.20. Although, taking the four years together, the economy overall has performed, as well as expected, difficulties were experienced over the period in maintaining a regular rate of growth when the economy was influenced strongly by vagaries of the weather, crop disease and international commodity prices. There was, in consequence, significant swings in the rate of growth between different years, viz.:—

1964-65	0.5 per cent
1965-66	14.5 per cent
1966-67	3.9 per cent
1967-68	6.6 per cent

1965 was a dry year and as a result was a year of serious food shortages in some areas and lower production of most export crops; there was an absolute fall in farmers' gross receipts. 1966 was a year of recovery with good weather and record harvests of coffee, tea, cotton and rice: there was in that year a 20 per cent increase in farmers' gross receipts. 1967 was generally a good year from the point of view of the weather but tea production was held back by firstly a period of drought and secondly a period of excessive rain and hail, while coffee production was seriously reduced by a severe infestation of Coffee Berry disease. In 1968 coffee production was reduced even more by C.B.D. and gross coffee receipts were K£6 million down (at constant 1964 prices) on the record 1966 year and K£11 million down on the 1970 coffee target.

2.21. An average annual increase in G.D.P. of 6.3 per cent can be compared with an estimated increase in the total population in excess of 3 per cent and it can be seen that there has been an increase in the average *per capita* product of over 3 per cent per annum over this period. As a result of some adverse movement in the terms of trade, discussed below, the *per capita* increase in real income was a little less.

2.22. The performance of each separate sector and industry over the 1964-68 period is set out in Table 2.5 below:—

Gross Domestic Product

COMPARISON OF 1964–70 PLANNED TARGETS (ADJUSTED) AGAINST PERFORMANCE ACHIEVED 1964–68 AT CONSTANT 1964 PRICES

Table 2.5

	PUBLISHED PLAN			ADJUSTED PLAN			GROWTH RATE	
	GDP OLD SERIES			GDP NEW SERIES				
	1964 Old Series *K£m*	Target 1970 *K£m*	Growth rate %	1964 *K£m*	1968 *K£m*	Target 1970 *K£m*	Adjusted Plan %	Actual 64–68 %
MONETARY SECTOR								
Agriculture and Livestock	46·22	66·25	6·2	51·97	61·91	74·00	6·2	4·5
Forestry	0·92	1·65	10·2	1·88	2·53	3·37	10·2	7·7
Fishing	0·87	2·95	22·6	0·85	1·14	2·92	22·6	7·6
Mining and Quarrying ..	0·75	1·20	8·2	1·46	1·44	2·34	8·2	−0·3
Manufacturing	29·38	46·60	8·0	33·74	42·11	53·64	8·0	5·7
Building and Construction	4·38	12·00	18·3	6·82	10·25	18·69	18·3	10·8
Electricity and Water ..	3·47	5·10	6·7	4·84	5·70	7·15	6·7	4·2
Transport, etc.	26·30	39·50	7·0	25·14	38·66	37·71	7·0	11·3
Trade	34·06	48·30	6·0	32·98	42·63	46·83	6·0	6·6
Banking, etc.	4·49	7·10	8·0	11·60	16·17	18·44	8·0	8·6
Ownership Dwellings ..	9·54	11·70	3·5	13·34	13·88	16·41	3·5	1·0
Other Services	18·30	28·20	7·5	11·90	17·34	18·39	7·5	9·9
Economic Enterprise ..	178·68	270·55	7·1	196·52	253·76	299·89	7·2	6·6
Domestic Services.. ..	—	—	—	2·94	3·73	3·31	2·0	6·0
General Government ..	34·11	51·20	7·0	43·00	59·48	64·50	7·0	8·4
TOTAL MONETARY SECTOR	212·79	321·75	7·1	242·46	316·97	367·70	7·2	6·9
NON-MONETARY SECTOR								
Agriculture }	68·53	83·10	3·2	73·36	87·14	—	—	4·3
Other }				15·53	17·96	—	—	3·6
TOTAL ..	68·53	83·10	3·2	88·89	105·10	107·56	3·2	4·2
TOTAL GDP*..	281·32	404·85	6·3	331·35	422·07	475·26	6·2	6·3

*at factor cost.

The monetary section as a whole performed rather less well than had been expected, as a result of the fact that the growth of enterprises fell short of the Plan projection. Rising consumption standards in the non-monetary sector, however, meant that non-monetary production increased at a relatively faster rate than had been expected when the Plan was drawn up.

2.23. The industries that exceeded their planned rates of growth were those that provided services (including Government services) rather than produced goods. This group included "transport, storage and communications", "other services", "general government", "trade" and "banking". The industries that fell short of their projected growth targets were the productive industries, notably agriculture, manufacture, building and construction and electricity. The reasons for these differences are discussed briefly below. It is not possible to explain developments in each industry in detail if this chapter is to be restricted to a reasonable length and readers interested in greater detail are invited to refer to the "Economic Survey 1969".

General Government

2.24. "General Government" performed better than expected over the period 1964-68, largely due to the fact that education targets (for school enrolments) were exceeded as shown by Tables 2.3 and 2.4 above. In addition, the introduction of free out-patient health facilities and of in-patient facilities for children caused a marked increase in the demand for health services. Taken together, general government exceeded its planned rate of growth in real terms, in spite of short-falls in some areas in the planned rate of development spending. This is discussed in more detail below. However, the impetus given by the increase of education and health services is likely to be less in the last two years of the Plan and some slowing down in the overall rate may occur, unless this is offset by an acceleration of development expenditures.

Transport, Storage and Communications

2.25. The planned target of 7 per cent for this industrial group was exceeded by performance which achieved a rate of growth of 11.3 per cent, well in excess of any other industry in the economy. The impetus was provided in the earlier years by a rapid expansion of railway and port services and air services in the public sector. In the private sector, warehousing expanded, particularly rapidly, to provide the storage facilities for the expansion of bulk crops, but in the later part of the period, road improvements occasioned a sharp increase in road transport services also. It seems likely that, whereas public sector transport grew relatively faster than the private sector between 1964 and 1968 overall, the opposite may be the case between 1968 and 1970.

Other Services

2.26. This industry consists of a range of sub-industries, but its rapid rate of growth over the period 1964-68 was based largely on the expansion of the tourist industry, discussed below, leading to a rapid expansion of the hotel and restaurant sub-groups. In addition, there was a marked increase in private education services in line with the expansion of public education.

Agriculture

2.27. Monetary agriculture accounted for 14.7 per cent of total gross domestic product in 1968, compared with 15.7 per cent in 1964. This drop in the overall share of the industry had not been expected and is explained by the fact that production fell short of the planned target. However, having regard to the unexpectedly severe setbacks to coffee and sisal, in the first case due to the heavy incidence of Coffee Berry disease in 1967/68 and in the second case due to the increasing use of synthetic fibres such as polyproplene, the performance of agriculture can be considered quite good, even though this fell short of the projected target. The production of cereals rose significantly as a result of marked increases in average per hectare yields, based on the use of improved seed. Tea production increases were also notable, derived from the planned investment in small-holder tea which is discussed in detail later in this Plan. The expected expansion of coffee did not, however, take place—not because the capacity in terms of acreage was not available but because a serious outbreak of Coffee Berry Disease reduced production in 1967 and 1968. If coffee production had been maintained at its expected level, agriculture would have achieved its overall growth target.

2.28. Changes in the outputs of the principal agricultural products between 1964 and 1968, compared with the planned targets for these, are set out below.

QUANTITY OF MARKETED AGRICULTURAL PRODUCTION

Table 2.6

		1964	1968	Target 1970
Coffee	(Metric tons)	41,407	39,601	71,127
Sisal	,,	67,430	50,280	67,063
Tea	,,	20,241	29,764	30,981
Wheat	,,	134,680	216,309	186,000
Maize	,,	136,170	352,557	136,000
Rice (Paddy)	,,	13,210	18,747	18,800
Seed Cotton	,,	10,990	14,279	43,700
Sugar Cane	,,	600,806	947,180	1,524,000
Pyrethrum (Dried Flowers)	,,	4,403	9,804	12,700
Cattle and Calves for Slaughter..	000 head	157·6	194·9	n.a.
Sheep, lambs and goats	,,	114·8	55·1	n.a.
Pigs..	,,	45·0	53·1	n.a.
Wool	Metric tons	3,340	4,200	n.a.
Wholemilk equivalent	Million litres	244·6	227·8	n.a.

2.29. The planned expansion of tea, wheat and livestock products, together with the unexpected expansion of maize production, provided the impetus to agriculture as a whole. Coffee, sisal and cotton fell seriously behind the expected rate of progress, although the first two of these three items was subject to adverse forces beyond the ability of Government or farmers to control. The planned cotton targets were undoubtedly too ambitious, but even so, the expansion of this crop was disappointing. Detailed discussion on the progress and future plans for individual crops and livestock products are set out in Chapter 8. The gross farm income of small-holders grew relatively faster than that of large farms and plantations, expanding at an average rate of approximately 10 per cent compared with an average increase of approximately 4 per cent overall. However, the area of land comprising the small farm sector was increased by the transfer of land from the large farm sector under the Land Settlement programme as set out in Table 2.2.

GROSS MARKETED PRODUCTION FROM LARGE AND SMALL FARMS, 1964–68

Table 2.7

	LARGE FARMS		SMALL FARMS		TOTAL		Share of Small Farms
	K£'000	Annual change per cent	K£'000	Annual change per cent	K£'000	Annual change per cent	Per cent
1964	35·8	−4·0	24·6	16·6	60·4	3·4	40·7
1965	33·3	−7·0	23·8	−3·3	57·2	−5·3	41·6
1966	36·0	8·1	32·7	37.4	68·8	20·3	47·5
1967	33·0	−8·3	34·0	4·0	67·0	−2·6	50·7
1968	34·7	5·2	36·0	5·9	70·6	5·4	51·0

Manufacturing

2.30. The growth of manufacturing industry over this period must be considered disappointing, for it was less than the growth of the economy as a whole. In part, this relatively slow rate of growth, almost certainly slower than in the previous five years, reflected firstly the restrictions based on the export of Kenya manufactures to Tanzania and Uganda during the period of the Kampala Agreement and secondly, the failure of a number of key projects to get under way during the current planning phase. Amongst the latter, must be included the pulp and paper project at Broderick Falls and the fertilizer manufacturing plant at Mombasa.

2.31. The performance of individual industries within manufacturing can be seen from the sub-groups of the quantity index of manufacturing production set out below.

QUANTITY INDEX OF MANUFACTURING PRODUCTION, 1964–1968

Table 2.8

	1964	1965	1966	1967	1968*
Food	100·0	99·5	102·8	110·2	113·0
Beverages and Tobacco ..	100·0	97·1	101·4	99·8	108·7
Textiles	100·0	111·1	135·4	149·4	205·1
Footwear and Clothing ..	100·0	118·9	132·6	125·2	146·5
Wood	100·0	110·0	135·6	125·7	142·6
Furniture and Fixtures ..	100·0	105·0	110·0	122·5	125·0
Paper and Printing	100·0	125·6	140·6	149·4	138·3
Leather..	100·0	96·7	110·0	100·0	116·7
Rubber	100·0	104·0	132·0	134·0	172·0
Chemicals	100·0	100·6	112·4	109·2	118·4
Petroleum Products	100·0	118·8	119·3	128·5	126·3
Non-metallic Minerals ..	100·0	109·8	112·2	117·7	134·8
Metal Products	100·0	101·6	94·6	98·6	111·8
Non-electrical Machinery ..	100·0	122·9	167·1	180·0	170·0
Electrical Machinery	100·0	103·7	107·9	102·3	117·4
Transport Equipment ..	100·0	103·2	108·5	119·8	128·6
Miscellaneous	100·0	108·9	123·3	82·2	86·7
All Industries	100·0	105·4	111·9	116·2	124·8

*Provisional.

2.32. The industries that moved ahead relatively more rapidly included textiles, rubber products (although no motor tyre factory was operating during this period) non-electrical machinery, paper and printing, wood products; whereas the food, beverage and tobacco, metal and miscellaneous industries tended to lag behind.

2.33. The removal of quantitative restrictions on East African trade and the adoption of a system of transfer taxes seems likely to provide a more favourable climate for the expansion of Kenya manufacturing in the last two years of the plan period than was the case in the previous four years. Although it must be counted unlikely that manufacturing will be able to accelerate sufficiently to achieve the planned rate of growth by 1970, some improvement on recent performance seems probable.

Building and Construction

2.34. This industry was expected to expand faster than any other (except the small fishing industry) in order to support the very substantial investments in building and construction planned. The industry had reached the bottom of a building cycle in 1964 and it, therefore, seemed reasonable that a recovery could be obtained at the rate projected. In the event, however, it was found that the rundown of the industry and its suppliers had been even more severe than had been supposed. Many quarries producing sand, ballast and stone had been closed down and many building artisans had emigrated from the country. As a result, when the building industry attempted to meet the higher level of demand of 1966 and 1967, it was faced with a situation of rapid rising material and labour prices. These can be seen from the table below.

COSTS OF BUILDING MATERIALS AND LABOUR, 1966–1969
(1966=100)

Table 2.9

	Unit	1966	1967	1968	1969*
Ballast	100 c.f.	100·0	186·7	222·2	222·2
Stone	100 l.f.	100·0	158·8	158·8	135·3
Sand	100 c.f.	100·0	156·5	156·5	156·5
Cement	ton	100·0	102·1	103·3	103·3
Skilled Labour	per day	100·0	128·0	144·0	144·0
Semi-skilled Labour ..	per hour	100·0	107·4	107·4	116·7
Unskilled Labour	per hour	100·0	124·1	120·0	132·5

*Provisional.

The effect of this rise in building costs was, of course, that money spent on development projects purchased fewer units of real assets than had originally been planned. To some extent, at least, the industry and its suppliers seem now to have adapted themselves to a higher level of demand, but the industry still has some way to go to catch up with the high target set.

The Public Sector as a Whole

2.35. Although the size of the public sector was not quantified or projected as a whole in either the "Red" or "Green" Plans, is was explicit in a number of chapters that greater Kenyan participation in the economy would be advanced by increasing the contribution of the public sector to total production. Over the period 1964 to 1968 public sector product grew at a relatively faster rate, 8.1 per cent (at current prices), than the private sector which grew at 6.4 per cent. At the same time, the product of public enterprises increased by 9.0 per cent compared with 7.0 per cent by private enterprises. The public sector share of the total economy increased from 23.9 per cent in 1964 to 25.1 per cent in 1968.

Table 2.10

Gross Domestic Product 1964 and 1968
Public and Private Sectors
(Current Prices)

K£ million

Industry	Public Sector 1964	Public Sector 1968*	Public Sector cum. rate of growth	Private Sector 1964	Private Sector 1968*	Private Sector cum. rate of growth	Total 1964	Total 1968*	Total cum. rate of growth
			%			%			%
GROSS PRODUCT AT FACTOR COST:									
A. *Outside Monetary Economy*									
Agriculture	—	—	—	73·36	84·96	3·7	73·36	84·96	3·7
Forestry	—	—	—	1·99	3·11	11·8	1·99	3·11	11·8
Fishing	—	—	—	0·11	0·15	8·1	0·11	0·15	8·1
Building and Construction	—	—	—	5·81	8·65	10·5	5·81	8·65	10·5
Water	—	—	—	2·09	3·12	10·5	2·09	3·12	10·5
Ownership of Dwellings	—	—	—	5·53	8·98	12·9	5·53	8·98	12·9
Total Outside Monetary Economy	—	—	—	88·89	108·97	5·2	88·89	108·97	5·2
B. *Monetary Economy*									
1. Enterprises and non-profit institutions:									
Agriculture	—0·08	0·15	17·0	52·05	57·24	2·4	51·97	57·39	2·5
Forestry	1·04	1·62	11·7	0·83	1·30	11·9	1·88	2·92	11·6
Fishing	—	—	—	0·85	1·26	10·4	0·85	1·26	10·4
Mining and Quarrying	—	—	—	1·46	2·19	10·8	1·46	2·19	10·8
Manufacturing and repairing	5·26	6·80	6·6	28·48	42·24	10·4	33·74	49·05	9·8
Building and Construction	3·58	5·41	10·9	3·24	7·72	24·3	6·82	13·13	17·8
Electricity and Water	1·61	2·15	7·5	3·23	4·80	10·4	4·84	6·95	9·5
Transport, Storage and Communication	17·81	24·56	8·3	7·32	11·31	11·5	25·14	35·86	9·2
Wholesale and Retail Trade	0·44	2·05	46·9	32·54	42·19	6·7	32·98	44·24	7·6
Banking, Insurance and Real Estate	2·76	4·54	13·2	8·84	11·87	7·6	11·60	16·41	9·1
Ownership of Dwelling	3·78	3·81	0·2	9·56	11·32	4·3	13·34	15·13	3·2
Other Services	0·03	0·07	23·6	11·87	16·56	8·6	11·90	16·62	8·7
Total Enterprises	36·23	51·16	9·0	160·29	210·00	7·0	196·52	261·15	7·4
2. Private Households (Domestic Services)	—	—	—	2·94	3·56	4·9	2·94	3·56	4·9
3. General Government:									
Public Administration	16·85	19·46	3·7	—	—	—	16·85	19·46	3·7
Defence	2·19	3·89	15·4	—	—	—	2·19	3·89	15·4
Education	11·20	16·04	9·4	—	—	—	11·20	16·04	9·4
Health	4·69	6·91	10·2	—	—	—	4·69	6·91	10·2
Agricultural Services	4·41	5·07	3·5	—	—	—	4·41	5·07	3·5
Other Services	3·66	5·69	11·7	—	—	—	3·66	5·69	111·7
Total General Government	43·00	57·05	7·4	—	—	—	43·00	57·05	7·4
Total Product—Monetary Economy	79·23	108·21	8·1	163·23	213·56	6·9	242·46	321·77	7·4
Total Gross Product at Factor Costs (Monetary and non-monetary)	79·23	108·21	8·1	252·12	322·53	6·4	331·35	430·73	6·8

*Provisional.

External Trade and Balance of Payments

2.36. The real resources created by production were directed in part to the export markets to pay for others which were imported from overseas. The 1964-70 Plan projected a growth in export income from K£77.3 million in 1964 to K£98.0 million in 1970 that is an average growth rate of over 4 per cent. Over the period 1964-68, the actual growth achieved was equivalent to an average growth of only 2.2 per cent viz.

TOTAL VALUE OF EXPORTS*

Table 2.11 — *K£ million*

	Total Exports	*of which E.A.*
1964	77·3	26·4
1965	78·0	29·9
1966	86·8	29·2
1967	79·0	26·5
1968	83·9	26·3
1970 (Plan) ..	98·0	N.A.

*On an adjusted balance of payments basis including re-exports.

2.37. The main reasons for this slower than projected rate of growth can be found from an analysis of agricultural exports which, taken together contributed less than expected: no significant growth of agricultural exports, at current prices, had been achieved by 1968.

AGRICULTURAL EXPORTS 1964 TO 1968 COMPARED WITH 1970 TARGET (CURRENT PRICES)

Table 2.12 — *K£million*

	1964	1965	1966	1967	1968	1970 Targets
Coffee	15·4	14·1	18·8	15·7	12·8	22·7
Tea	6·4	6·5	9·2	7·9	10·4	10·5
Pyrethrum Extract	2·2	2·0	2·4	2·4	2·5	4·0
Sisal and Sisal tow	6·0	3·9	3·3	2·1	1·8	3·7
Cotton raw	0·6	0·7	0·9	0·6	0·4	3·4
Butter and Ghee	1·2	0·9	1·0	0·8	0·8	2·6
Pineapple	0·9	0·8	0·6	0·6	0·5	2·1
Hides and Skins	1·3	1·8	2·6	1·7	1·7	1·9
Meat Products	2·5	2·8	3·4	3·2	3·4	2·2
Wheat and Flour	2·1	1·8	1·0	1·6	1·7	1·1
Maize	—	—	—	1·4	4·9	—
Other	7·9	8·4	8·7	6·1	6·8	7·2
TOTAL AGRICULTURAL EXPORTS	46·5	43·7	51·9	44·1	47·7	61·4

2.38. Only maize, wheat and meat products exceeded their 1970 targets by 1968, and of these, maize had not been expected to be a significant export when the Plan was drawn up. A large part of the shortfall in total export income can be attributed to a failure of coffee export receipts to expand as projected, due to the shortfall in production in 1967 and 1968. Tea exports had almost achieved the 1970 target by 1968 in spite of 9 per cent fall in average prices following the devaluation of sterling.

2.39. It was assumed in the 1966-70 Plan that the average export prices of agricultural products would fall by 5 per cent between 1964 and 1970. This assumption has turned out to be about right, for by the end of 1968 the average drop in agricultural prices was approximately 6 per cent, although likely to fall further. Overall exports prices have not been particularly unfavourable to Kenya. Higher prices obtained by exports sold within East Africa compensated for a fall of 5 per cent in the average price of overseas exports.

EXPORT PRICE INDICES, 1964=100

Table 2.13

	1965	1966	1967	1968
EXTERNAL TRADE				
Food and Live Animals	103	99	95	98
Crude Materials incl. Sisal	99	111	104	101
Sisal	63	57	47	41
All Agricultural Products	97	96	92	94
Minerals, Fuels and Lubricants	110	104	109	105
Chemicals	106	107	104	103
Manufactured goods	126	127	97	105
All External Trade	99	99	93	95
INTER-EAST AFRICAN TRADE				
Food, Beverage and Tobacco	107	109	112	110
Basic Materials and Fuel	102	101	104	101
Manufactured Goods	99	103	111	112
All Intra-East African Trade	102	105	110	109
ALL EXPORTS	100	101	99	100

EXPORT PRICES, 1964–1968

Table 2.14 *KSh./Unit*

Item	Unit of Quantity	1964	1965	1966	1967	1968
Coffee, unroasted	Kg.	7·28	7·34	6·90	6·17	6·81
Tea	Kg.	7·31	7·65	7·71	8·00	7·30
Petroleum products	1,000 litres	96·79	136·38	149·58	139·54	134·75
Maize	100 Kg.	37·11	39·57	—	35·21	34·41
Meat and products	Kg.	6·83	7·18	6·89	6·90	8·53
Pyrethrum Extract	Kg.	153·11	143·41	149·25	148·17	136·77
Sisal	100 Kg.	208·27	132·26	119·82	99·62	87·46
Hides and Skins, undressed ..	Kg.	4·61	4·74	6·77	5·08	4·78
Wattle Extract	Kg.	0·96	1·06	1·11	1·07	1·09
Soda Ash	100 Kg.	21·75	21·56	20·87	20·78	20·13
Cement	100 Kg.	9·06	9·45	9·94	9·09	9·83
Beans, Peas, etc.	Kg.	0·81	0·01	0·93	1·16	0·94
Cashew Nuts, raw	Kg.	1·06	1·42	1·52	1·39	1·46
Wool	Kg.	7·88	8·15	7·84	6·90	6·40
Animal feed	100 Kg.	36·22	40·95	42·13	36·55	35·64
Cotton raw	Kg.	4·77	4·51	4·15	4·04	4·72
Pineapples, tinned	Kg.	1·67	1·71	1·75	1·77	1·67
Butter and Ghee	Kg.	6·39	6·94	7·59	6·80	6·16
Wattle Bark	100 Kg.	60·53	60·53	55·91	54·79	58·86

2.40. Non-agricultural exports performed rather better over this period, largely as a result of petroleum products moving up to represent the third ranking export but also because of the export of a wider range of miscellaneous products.

NON-AGRICULTURAL EXPORTS

1964 *to* 1968 (*at current prices*)

Table 2.15 *K£million*

	1964	1965	1966	1967	1968	1970
Petroleum Products	4·7	9·7	10·5	11·6	10·9	n.a.
Cement	1·7	1·9	1·7	1·7	2·2	n.a.
Soda Ash	0·7	0·8	1·1	1·1	1·2	n.a.
Soap and Soap preparations ..	1·5	1·3	1·3	1·4	1·6	n.a.
Paper, paper goods and manufactures	1·0	1·2	1·6	1·7	1·9	n.a.
Clothing	2·0	2·4	1·7	1·4	1·0	n.a.
Footwear..	1·5	1·4	1·2	0·9	1·1	n.a.
Metal manufactures	1·9	2·0	2·0	1·4	1·8	n.a.
Other	11·7	12·5	14·1	14·5	14·7	n.a.
Total Non-Agricultural Exports	26·7	33·2	35·2	35·7	36·4	n.a.

2.41. The quantities of principal exports shipped overseas were as set out below. The shipments of coffee, sisal, canned pineapple and cotton fell over this period but shipments of other commodities generally showed significant increases.

QUANTITIES OF PRINCIPAL OVERSEAS EXPORTS, 1964–1968

Table 2.16

	Unit	1964	1965	1966	1967	1968
Coffee	Metric tons	42,303	38,399	54,460	50,748	37,596
Tea	,,	16,566	15,917	22,608	18,481	27,500
Petroleum Products ..	Million litres	444	662	782	1,028	907
Pyrethrum Products ..	Metric tons	1,223	1,140	1,682	1,895	2,168
Meat Products	,,	6,340	6,874	8,694	8,281	7,095
Sisal	,,	57,888	58,246	55,751	41,443	41,896
Hides and Skins.. ..	,,	5,610	7,412	7,602	6,859	6,989
Soda Ash	,,	65,021	74,676	106,746	98,330	112,489
Cement	,,	174,117	199,406	169,527	221,189	239,027
Maize (raw)	,,	895	172	2	79,848	277,525
Canned Pineapples ..	,,	10,554	9,073	6,107	6,169	5,279
Butter and Ghee ..	,,	2,359	844	1,033	746	1,037
Beans and peas	,,	12,822	9,389	12,443	5,632	17,712
Cotton	,,	2,715	3,315	4,188	3,111	1,688
Wool (sheep's and lamb's)	,,	1,304	1,369	1,438	1,418	1,798
Animal feeds	,,	15,363	10,938	18,776	25,361	28,410
Cashew nuts	,,	4,733	6,743	5,641	7,770	8,607

2.42. Imports were projected to increase at an average rate of 7 per cent per annum from K£87.4 million to K£131.0 million. The actual average growth of imports between 1964 and 1968—was 8.4 per cent—rather higher than projected.

TOTAL VALUE OF IMPORTS*
(*at current prices*)

Table 2.17 *K£million*

	Total Imports	of which U and T
1964	86·7	11·5
1965	97·4	11·8
1966	113·5	11·2
1967	116·5	13·5
1968	120·1	12·3
1970 (Plan)	131·0	n.a.

*Overseas and East African taken together and adjusted on a balance of payments basis.

2.43. The proportion of imports to total resources available for investment and consumption has remained more or less stable rather than risen as projected in the Plan. There has, however, been some change in the structure of imports. Capital goods, transport equipment and chemicals represent a higher proportion of the total in 1968, while other groups have recorded a relative decline.

IMPORTS* BY BROAD ECONOMIC CATEGORY
1964–1968

Table 2.18 *Percentage of total imports.*

	1964	1968
Food, Drink and Tobacco	13·7	8·1
Basic Materials	4·3	4·6
Fuels	11·1	10·9
Chemicals	8·1	9·3
Textiles	10·7	9·7
Semi-manufactures	6·2	7·2
Metals	8·6	9·5
Transport Equipment	12·9	14·5
Other Capital Goods	15·3	16·9
Consumer Goods	5·0	5·2
Miscellaneous	4·1	4·1
TOTAL	100·0	100·0

*Overseas and East African taken together.

2.44. Assumptions of import price movements were not included in the 1964/70 Plan. Since 1964 there has been some increase in import prices but this has not been too serious for the Kenya economy and has not been the cause of any sharp increase in internal prices.

IMPORT PRICE INDICES, 1964=100

Table 2.19

	1965	1966	1967	1968
OVERSEAS IMPORTS				
1. Food	81	75	76	68
2. Beverages and Tobacco	104	111	117	120
3. Basic Materials	112	107	104	100
4. Mineral Fuels	101	103	102	103
5. Mineral and vegetable oils and fats ..	134	118	102	97
6. Chemicals	106	107	93	96
7. Textiles	108	114	118	124
8. Semi-Manufactures	103	103	107	104
9. Machinery and Transport Equipment ..	104	107	107	107
10. Consumer Goods	104	107	105	106
All Overseas Imports	102	102	102	103
EAST AFRICAN IMPORTS				
11. Food, Beverages and Tobacco	107	105	109	104
12. Basic Materials	125	114	104	118
13. Other	105	104	97	106
All East African Trade	109	106	104	108
ALL IMPORTS	103	103	103	104

2.45. The overall effect of movements of export and import prices between 1964 and 1968 was that there was a movement in the terms of trade of approximately 4 per cent against Kenya. This meant that in order to earn the same amount of foreign exchange to purchase imports, an additional 4 per cent of export quantities had to be produced and shipped abroad. The adverse movement in the terms of trade was particularly serious in 1967 but would have been more severe if it were not for a favourable movement in the terms of East African trade, viz.

TERMS OF TRADE, 1964=100

Table 2.20

	1965	1966	1967	1968 Estimate
External Trade	97	97	91	92
East African Trade	94	99	106	101
All Trade	97	98	96	96

2.46. The balance of payments has always relied heavily on a positive balance of "invisible receipts" and these were expected to move further in Kenya's favour over the period of the Plan. This objective has not in the event been achieved (on the basis of preliminary 1968 figures). The overall favourable balance of invisibles excluding transfers has moved as follows:—

	K£ million
1964	14.4
1965	13.8
1966	17.0
1967	15.9
1968	14.0

2.47. Higher receipts were derived from a transport services provided to Uganda and Tanzania for goods passing through Mombasa and from a steady increase in net tourist income. Foreign exchange earned by transport and port services increased by K£5.4 million net between 1964 and 1968.

2.48. The growth of tourism having an impact on the production of a number of industries in the economy was a particular feature of the first Plan period. The progress of tourism can be summarized as follows:—

NUMBER OF FOREIGN VISITS AND DAYS SPENT BY TOURISTS IN KENYA

Table 2.21

	Number of Foreign Visits	Average Length of stay	Total Number of Visitor Days	Estimated Gross* Foreign Exchange Earnings
	000*s*	*Days*	000*s*	*K£million*
1964	169·3	8·5	1,446	9·0
1965	192·6	8·9	1,707	10·6
1966	228·7	10·4	2,375	14·7
1967	259·0	9·9	2,572	16·0
1968	257·0	11·0	2,440	16·4
Average rate of growth % ..	8·0	6·6	17·4	15·6

*Some of the total is represented by expenditures of foreign naval personnel at Mombasa and expenditures of undocumented visitors.

2.49. The balance on current account as a whole moved from a surplus in 1964 to a deficit in 1966 and subsequent years being made up as follows:—

BALANCE OF PAYMENTS CURRENT ACCOUNT

Table 2.22 *K£million*

	1964	1965	1966	1967	1968
Net Merchandise Transactions	−9·4	−19·4	−26·7	−37·3	−36·2
Net Services..	+24·1	+22·9	+26·2	+27·6	+21·5
Net Balance of Goods and Services ..	+14·7	+3·5	−0·5	−9·7	−14·8
Net Factor Payments	−7·1	−6·6	−6·4	−8·6	−4·3
Net Contribution of Rest of World to Gross Domestic Investment	+7·6	−3·1	−6·9	−18·3	−19·1
Net General Government Interest ..	−2·7	−2·4	−3·0	−2·9	−3·0
Net Transfers	+12·5	+5·7	+3·3	+1·0	+8·7
Net Balance on Current Account ..	+17·5	+0·2	−6·6	−20·6	−13·4

2.50. The current account had been expected to move into deficit, which is, another way of saying that the Plan provided for a capital inflow from abroad. The inflow of foreign capital is discussed in detail below.

(*Total Net Credits* 1964–1968)

Table 2.23 *K£million*

	1964	1965	1966	1967	1968
A. CURRENT ACCOUNT					
1. Merchandise Transactions					
Imports (c.i.f.)	*Dr.* 86·7	*Dr.* 97·4	*Dr.*113·5	*Dr.*116·5	*Dr.*120·1
Exports and Re-exports (f.o.b.)	77·3	78·0	86·8	79·0	83·9
2. Non-Monetary Gold Movements	0·1	0·1	0·1	0·2	0·2
3. Transport	11·2	13·3	14·4	17·8	16·0
4. Foreign Travel	2·6	4·5	8·8	7·7	8·8
5. International Investment Income	*Dr.* 9·8	*Dr.* 9·0	*Dr.*12·5	*Dr.*14·2	*Dr.*13·9
6. Government Transactions, nes.	7·2	2·8	3·7	3·6	1·4
7. Other Services	3·1	2·2	2·3	0·8	1·5
8. (*a*) Private Transfer Payments	*Dr.* 3·1	*Dr.* 1·5	0·1	*Dr.* 0·7	—
(*b*) Government Transfer Payments	15·6	7·3	3·2	1·7	8·8
Total Current Account ..	17·5	0·2	*Dr.* 6·6	*Dr.*20·6	*Dr.*13·4
of which: Visible Balance ..	*Dr.* 9·4	*Dr.*19·4	*Dr.*26·7	*Dr.*37·5	*Dr.*36·2
Invisible Balance..	26·9	19·6	20·1	16·9	22·8
B. LONG-TERM CAPITAL MOVEMENTS					
9. (*a*) Private Long-term ..	*Dr.*15·0	1·5	1·0	7·9	10·5
(*b*) Government Enterprise Long-Term	0·1	—	3·8	5·2	—
10. Local Government	*Dr.* 0·5	*Dr.* 1·3	*Dr.* 1·0	*Dr.* 0·5	*Dr.* 0·3
11. Central Government ..	*Dr.* 0·2	7·9	10·8	3·7	7·0
Total Long-Term Capital Movements	*Dr.*15·6	8·1	14·7	16·3	17·2
Total Current and Long-Term Capital Movements ..	1·9	8·3	8·1	*Dr.* 4·3	3·8
C. MONETARY AND SHORT-TERM CAPITAL MOVEMENTS:					
12. Central Monetary Institutions	2·7	*Dr.* 0·9	*Dr.* 6·5	*Dr.* 4·6	*Dr.* 7·6
13. Accounts with I.M.F. ..	*Dr.* 0·8	—	*Dr.* 0·6	—	—
14. Other Monetary Institutions	1·5	*Dr.* 0·9	*Dr.* 3·4	10·1	*Dr.* 4·1
15. Other Short-Term Capital Movements	*Dr.* 0·3	*Dr.* 0·6	*Dr.* 2·0	*Dr.* 4·9	1·9
Total Monetary and Short-Term Capital Movements..	3·1	*Dr.* 2·4	*Dr.*12·5	0·6	*Dr.* 9·8
Balancing Item	*Dr.* 5·1	*Dr.* 5·9	*Cr.* 4·4	3·7	*Cr.* 6·0

The Use of Resources

2.51. The total value of domestic production at market prices plus the value of goods and services imported from other countries, less the goods and services exported to other countries represented the total value of resources available to the nation. The use to which these resources were put during 1964-68 is set out in Tables 2.24 and 2.25.

USE OF NATIONAL RESOURCES
(*at current prices*)

Table 2.24 *K£million*

	1964	1965	1966	1967	1968 (Est.)
RESOURCES AVAILABLE					
G.D.P.at Factor cost	331·4	330·5	385·0	406·7	430·7
Of which					
Non-Monetary	88·9	80·5	101·5	107·2	109·0
Monetary	242·5	250·0	283·5	299·5	321·7
+Indirect Taxes	25·0	27·0	30·8	34·7	35·8
−Subsidies	0·4	0·5	0·7	1·6	2·5
=G.D.P. at Market Prices	356·0	357·0	415·1	439·8	464·0
+Imports of goods and services ..	105·0	115·0	136·0	139·7	149·5
−Exports of goods and services ..	119·7	118·5	135·5	130·0	134·7
=Imports Surplus+	−14·7	−3·5	+0·5	+9·7	+14·8
Total Resources available for Domestic Investment and Consumption	341·3	353·5	415·6	449·5	478·8
USE OF RESOURCES					
Gross Fixed Capital Formation ..	45·1	46·5	61·2	87·3	91·0
+Increase in Stocks	2·3	5·5	16·2	6·7	2·6
=Gross Investment	47·4	52·0	77·4	94·0	93·6
Public Consumption	49·9	52·9	57·7	64·4	68·2
Private Consumption	244·0	248·6	280·5	291·1	317·0
Total Consumption	293·9	301·5	338·2	355·5	385·2

2.52. Prices did not move uniformly over the period and in terms of constant (1964) prices, real changes in the allocation of resources were rather different. Thus, while total consumption expanded at an average rate of 7.0 per cent at current prices, this was reduced to 6.8 per cent at constant (1964) prices. Public consumption expanded at 8.0 per cent at current prices and 8.8 per cent at constant prices, while private consumption grew at 6.8 per cent and 6.4 per cent respectively. The gap between current and constant prices with respect to capital formation was even wider being 19.2 per cent and 14.2 per cent respectively. The use of resources set out in terms of 1964 prices is tabulated below.

2.53. As noted above, it is estimated that the consumption of goods and services by private individuals rose in terms of constant prices at an average rate of 6.4 per cent, although consumption of services rose relatively faster than the consumption of goods. This rate of growth of private consumption compares with a growth of GNP at constant market prices of 6.3 per cent, indicating that private consumption accounted for approximately the same proportion of GNP at the end of the period as at the beginning. On the other hand, private consumption grew less rapidly than total resources which as a result of the relatively faster growth of imports expanded by an average 7.9 per cent per annum. This of course was to be expected during a period when investment was expanding rapidly.

USE OF NATIONAL RESOURCES

(at constant 1964 prices)

Table 2.25 *K£million*

	1964	1965	1966	1967	1968
RESOURCES AVAILABLE					
G.D.P. at Factor Cost	331·4	333·1	381·4	396·1	422·1
Of which					
Non-Monetary	88·9	79·7	97·6	101·4	105·1
Monetary	242·5	253·4	283·8	294·7	317·0
+Indirect Taxes	25·0	26·8	31·0	32·0	33·8
−Subsidies	0·4	0·5	0·7	1·6	2·5
RESOURCES AVAILABLE					
=G.D.P. at Market Prices	356·0	359·4	411·7	426·5	453·4
+Imports of goods and services ..	105·0	111·7	132·0	135·6	143·8
−Exports of goods and services ..	119·7	118·5	134·2	131·3	134·7
=(Import Surplus+)	—14·7	—6·8	—2·2	+4·3	+9·1
Total resources available for Domestic Investment and Consumption ..	341·3	352·6	409·5	430·8	462·5
USE OF RESOURCES					
Gross Fixed Capital Formation ..	45·1	45·5	56·8	76·3	76·8
Changes in Stocks	2·3	5·5	16·2	6·7	2·6
Gross Investment	47·4	51·0	73·0	83·0	79·4
Public Consumption	49·9	55·7	60·9	66·1	70·0
Private Consumption	244·0	245·9	275·6	281·7	313·1
Of which					
Non-Monetary	83·7	74·0	91·7	95·4	98·4
Monetary	160·3	171·9	183·9	186·3	214·7
TOTAL CONSUMPTION	293·9	301·6	336·5	347·8	383·1

2.54. On the basis of population increase in excess of 3 per cent per annum there was an increase in per capita real consumption of approximately 3 per cent per annum, which was rather better than expected when the Plan was drawn up. Although the estimates of private consumption have been substantially improved since that time, this factor would not have affected the projection of real income in the Plan substantially, for it was based on the assumption that an increased share of resources would be directed towards investment, but that private consumption would grow at 5.6 per cent compared with a growth of GDP of 6.3 per cent. In the event, consumption grew at 6.4 per cent compared on growth of GDP of 6.3 per cent, but as noted below the rate of capital formation achieved, though rising, was less than projected.

2.55. Public consumption grew rather faster—8.8 per cent on average than the growth of total resources—7.9 per cent—reflecting the relatively faster growth of general government product.

2.56. An increasing part of national resources (at current prices) was employed in raising the level of capital formation, which increased from K£45.1 million to K£91.0 million. This meant that at current prices between 1964 and 1968 its share rose from 13.2 per cent to 19.0 per cent of total resources available. However, the expansion in capital formation in constant terms was rather less, increasing from 13.2 per cent to 16.6 per cent of total resources. Changes in capital formation are examined in more detail in the next section.

Capital Formation

2.57. Although it is possible to adjust some of the "Green" Plan targets to take into account statistical improvements since the Plan was drawn up, it is difficult to do this with any reliability with respect to estimates of gross capital formation. The reason for this is that at that time there were no estimates of capital formation by user industry and such projections of investment by industry as included were, therefore, somewhat tentative. Such estimates based on capital formation achieved are now available but whereas it is possible to compare investment performance against that planned in the economy as a whole, albeit very roughly, industry by industry comparisons of investment performance against planned levels are not possible.

2.58. In the economy as a whole, the outturn of gross capital formation (G.C.F.) compared with that planned is as follows:—

GROSS CAPITAL FORMATION, 1964–1968

COMPARISON OF PLAN AGAINST OUTTURN (OLD SERIES)

Table 2.26 *K£million*

	Planned	Outturn Current Prices	Outturn 1964 Prices
1964	40·0*	36·3	36·3
1965	45·0*	36·0	35·5
1966	52·7	50·9	47·4
1967	64·8	63·4	55·6
1968	69·0	64·0	54·7
1964–68 Total ..	271·5	250·6	229·5

*No specific annual capital formation targets were included in the "Red" Plan and the targets for those years have been shown on the basis of the assumed rate of increase of capital spending over the six years.

2.59. It is clear that on the basis of the "old series" estimates, capital formation fell behind the levels projected. On these estimates, the average annual rate of increase of 10.7 per cent fell short of the projected increase of

14.6 per cent. On the other hand, the new series of capital formation estimates set out in Table 2.28 shows that total capital formation (at 1964 prices) rose at an average annual rate of 14.2 per cent.

2.60. Capital formation in the private sector rose less rapidly than that of the public sector, both enterprises and general government, but nearly achieved the levels expected when the Plan was drawn up. On the other hand, public sector capital spending increased at a significantly faster rate than the private sector but yet fell short of the rate of increase hoped for in the Plan. The position can be summarized as in Table 2.27.

2.61. Delays in project implementation in the public sector are illustrated by the reproduction in Table 2.29 of the table included in the "Green" Plan showing the planned annual development expenditure on a functional basis. The actual expenditures achieved have been set out alongside.

2.62. There are a number of reasons that can be advanced to explain the failure of the public sector to maintain the rate of capital spending set down in the Plan. In part, it can be explained in terms of an over optimistic assessment of the capital formation (physical assets) element in development expenditure and in retrospect it might be said that the development expenditure projections were themselves optimistic. Delays in the preparation of detailed project designs, delays in the negotiation of loan finance for particular projects, difficulties in obtaining the technical manpower to plan and supervise have all contributed to the overall shortfall. Although these difficulties have not yet been overcome fully, and implementation delays remain a major problem, the rate of Government capital spending has been rising steadily and improvement can be seen each year. In addition, increasing awareness of the problem of plan implementation led to organizational improvements within the Government which should in future years lead to a higher rate of development spending.

2.63. Attempts to project development spending on an annual basis up to five years ahead must always carry elements of uncertainty and this can be advanced to explain some of the implementation shortfalls. Within the Central Government, however, there were serious problems of fulfilling the level of expenditure provided each year in the annual Development Estimates and this must be regarded as more serious, since projects should only have been included in the annual estimates which were ready to go ahead. The shortfalls in Central Government expenditure against the sums provided by Parliament are set out in Table 2.31. The figures should not, however, be aggregated as between one year and another as moneys for uncompleted projects in one year would normally be revoted and included in the estimates for the following year.

CAPITAL FORMATION

Comparison of Planned Expenditures and Outturn by Sector (Old Series) (Constant Prices)

Table 2.27

K£million

	Planned						Achieved					
	1964	1965	1966	1967	1968	Total	1964	1965	1966	1967	1968	Total
Private Sector* ..	25·0	27·0	33·1	40·4	43·8	169·3	25·9	26·6	34·4	39·5	35·5	161·9
Public Sector ..	15·0	18·0	19·6	23·4	25·2	101·2	10·4	9·0	13·1	16·1	19·2	67·8
Of which												
Central Government	n.a.	n.a.	9·6	12·9	16·4	n.a.	4·9	5·4	7·6	8·2	12·3	38·4
Local Government	n.a.	n.a.	3·0	3·7	4·3	n.a.	1·4	1·3	1·7	3·0	2·5	9·9
E.A. Community†	n.a.	n.a.	5·6	4·8	3·4	n.a.	4·0	2·2	3·9	4·9	4·4	19·4
Total ...	40·0	45·0	52·7	64·8	69·0	271·5	36·3	35·5	47·4	55·6	54·7	229·5

*Including East African Airways.

†E.A.R. & H. and E.A.P. & T. excluding E.A.A.

Capital Formation, 1964–1968
Revised Series

Table 2.28 *K£million*

	At Current Prices					At Constant Prices				
	1964	1965	1966	1967	1968	1964	1965	1966	1967	1968
A. Outside Monetary Economy:										
Traditional Dwellings	5·2	5·7	6·5	7·5	8·4	5·2	5·6	5·8	6·0	6·5
B. Monetary Economy—Enterprises										
1. *Private Sector*										
Agriculture and Livestock ..	7·9	7·6	10·2	10·2	11·3	7·9	7·7	9·8	9·0	9·7
Forestry	0·2	0·1	0·3	0·4	0·2	0·2	0·1	0·3	0·3	0·2
Mining and Quarrying	—	0·1	0·1	0·2	0·6	—	0·1	0·1	0·1	0·5
Manufacturing and Repairing ..	6·8	7·0	7·7	13·5	10·6	6·8	6·7	7·2	12·5	9·4
Building and Construction ..	0·9	1·6	1·1	3·7	3·9	0·9	1·5	1·0	3·5	3·5
Electricity and Water	1·0	1·9	2·1	5·0	2·3	1·0	1·9	2·0	4·2	1·9
Transport, Storage and Communications	6·2	6·0	7·0	8·1	9·6	6·2	5·8	6·6	7·5	8·8
Wholesale and Retail Trade ..	2·5	1·8	2·3	2·7	2·4	2·5	1·7	2·1	2·4	2·0
Banking, Insurance and Real Estate	0·3	0·2	0·2	0·3	0·8	0·3	0·2	0·2	0·3	0·7
Dwellings	1·3	1·1	1·7	2·8	2·5	1·3	1·1	1·6	2·2	2·0
Other Services	1·9	1·7	2·9	4·8	4·5	1·9	1·6	2·6	4·2	3·9
Total	28·8	28·9	35·4	51·7	48·7	28·8	28·2	33·2	46·2	42·6

Capital Formation, 1964–1968
Revised Series

Table 2.28—(*Contd.*) *K£million*

	At Current Prices					At Constant Prices				
	1964	1965	1966	1967	1968	1964	1965	1966	1967	1968
2. *Public Sector*										
Agriculture and Livestock	0·1	0·1	—	0·7	0·3	0·1	0·1	—	0·6	0·3
Forestry	0·2	0·1	0·3	0·4	0·2	0·2	0·1	0·3	0·3	0·2
Mining and Quarrying	—	—	—	—	—	—	—	—	—	—
Manufacturing and Repairing ..	0·1	0·6	1·8	1·4	3·6	0·1	0·6	1·6	1·2	2·8
Building and Construction ..	0·5	0·5	0·6	0·6	0·9	0·5	0·5	0·5	0·5	0·8
Electricity and Water	0·4	0·2	0·3	1·2	1·1	0·4	0·2	0·3	0·9	0·9
Transport, Storage and Communications	4·7	2·2	6·3	8·6	7·5	4·7	2·1	5·9	7·7	6·4
Wholesale and Retail Trade ..	—	0·1	0·1	0·3	0·4	—	0·1	0·1	0·2	0·3
Banking, Insurance and Real Estate	—	—	—	—	—	—	—	—	—	—
Dwellings	0·7	0·9	1·1	2·3	4·2	0·7	0·9	1·0	1·9	3·3
Other Services	0·1	0·1	0·1	—	—	0·1	0·1	—	—	—
Total	6·7	4·8	10·5	15·5	18·3	6·7	4·7	9·7	13·5	15·0
Total Enterprises	35·5	33·8	45·9	67·3	67·0	35·5	33·0	42·9	59·6	57·6

CAPITAL FORMATION, 1964–1968
REVISED SERIES

Table 2.28—(*Contd.*)

K£million

	At Current Prices					At Constant Prices				
	1964	1965	1966	1967	1968	1964	1965	1966	1967	1968
C. GENERAL GOVERNMENT										
Public Administration	0·7	1·0	1·1	1·8	2·2	0·7	0·9	1·2	1·6	1·9
Health	0·5	1·2	0·9	1·3	1·3	0·5	1·2	0·8	1·1	1·1
Education	0·6	0·6	0·9	1·8	2·8	0·6	0·6	0·7	1·5	2·2
Agricultural Services	1·0	1·2	1·2	1·5	1·3	1·0	1·2	1·1	1·3	1·1
Other Services	1·6	3·0	4·7	6·4	8·1	1·6	2·9	4·3	5·2	6·4
TOTAL	4·4	7·0	8·9	12·8	15·7	4·4	6·9	8·1	10·7	12·7
TOTAL CAPITAL FORMATION	45·1	46·5	61·2	87·4	91·0	45·1	45·5	56·8	76·3	76·8
OF WHICH PUBLIC SECTOR										
Central Government	4·2	7·0	8·8	12·7	16·4	4·2	6·8	8·0	10·6	13·2
Local Government	1·4	1·4	1·9	3·7	4·5	1·4	1·3	1·7	3·0	3·5
E.A.C.S.O. (including E.A.A.) ..	4·8	2·3	6·4	8·8	7·8	4·8	2·2	5·9	7·8	6·6
Statutory Bodies	0·6	1·2	2·4	3·3	5·5	0·6	1·2	2·2	2·8	4·3
TOTAL	11·1	11·9	19·4	28·4	34·0	11·1	11·6	17·8	24·2	27·6
PRIVATE SECTOR	34·0	34·6	41·9	59·2	57·0	34·0	33·9	39·0	52·2	49·1

Table 2.29

PUBLIC SECTOR DEVELOPMENT EXPENDITURE COMPARED TO ACTUAL AND ESTIMATED EXPENDITURES
(CURRENT PRICES)
1965/66 TO 1968/69

K£'000

	Plan 1965/66	Actual 1965/66	Plan 1966/67	Actual 1966/67	Plan 1967/68	Estimate 1967/68	Plan 1968/69	Estimate 1968/69
AGRICULTURE—								
Agriculture excluding livestock (including lands settlement and Lands Department)	6,504	7,589	7,510	9,452	6,730	6,938	5,842	6,974
Livestock	463	211	780	313	1,265	369	1,835	994
TOTAL—AGRICULTURE	6,967	7,800	8,290	9,765	7,995	7,307	7,675	7,968
NATURAL RESOURCES—								
Forestry	1,031	615	1,043	1,236	1,037	1,101	1,008	975
Fisheries	79	91	113	61	135	145	128	152
Mines and Geology	122	29	99	28	21	52	15	33
TOTAL—NATURAL RESOURCES..	1,232	735	1,255	1,325	1,193	1,298	1,151	1,160
TOURISM—								
Tourism Accommodation	90	30	340	249	280	653	455	361
Hotel Training Programme	—	—	—	—	50	—	—	12
National Parks	23	83	164	128	87	74	62	40
Game Department	73	55	45	53	79	46	84	73
TOTAL—TOURISM	186	168	549	430	496	773	601	486

PUBLIC SECTOR DEVELOPMENT EXPENDITURE COMPARED TO ACTUAL AND ESTIMATED EXPENDITURES
(CURRENT PRICES)
1965/66 TO 1968/69

Table 2.29—(*Contd.*) *K£'000*

	Plan 1965/66	Actual 1965/66	Plan 1966/67	Actual 1966/67	Plan 1967/68	Estimate 1967/68	Plan 1968/69	Estimate 1968/69
COMMERCE, INDUSTRY AND CONSTRUCTION								
ICDC	100	375	500	654	1,000	818	1,400	945
DFCK	750	632	750	544	1,000	786	1,000	450
Traders' Loans	50	10	50	39	50	80	50	100
Management and Training Advisory Centre	7	—	22	—	45	—	45	—
National Industrial and Vocational Centre	—	—	25	19	—	—	—	—
National Construction Company ..	—	—	40	—	50	65	50	65
TOTAL—COMMERCE AND INDUSTRY	907	1,017	1,387	1,256	2,145	1,749	2,545	1,560
BASIC SERVICES—								
Roads	2,434	3,397	5,379	3,901	6,060	4,644	4,401	7,385
Railways and Harbours	4,370	1,608	5,155	2,606	2,950	4,169	3,000	2,910
Water Supplies	537	507	677	593	1,054	825	1,135	654
Posts and Telecommunications	584	522	983	825	415	1,134	337	1,153
Government Buildings (Excluding Public works non-recurrent, etc.)	531	320	712	397	680	641	435	784
Airports	62	51	73	86	460	203	525	243
Government Press	—	—	62	—	163	62	—	210
TOTAL—BASIC SERVICES ..	8,518	6,405	13,041	8,408	11,782	11,678	9,833	13,339

PUBLIC SECTOR DEVELOPMENT EXPENDITURE COMPARED TO ACTUAL AND ESTIMATED EXPENDITURES
(CURRENT PRICES)
1965/66 TO 1968/69

Table 2.29—(*Contd.*)

K£'000

	Plan 1965/66	Actual 1965/66	Plan 1966/67	Actual 1966/67	Plan 1967/68	Estimate 1967/68	Plan 1968/69	Estimate 1968/69
SOCIAL SERVICES—								
Education	1,948	1,238	3,489	1,106	2,804	2,963	2,364	3,258
Health	354	243	725	230	1,091	872	1,182	1,550
Housing	450	466	1,200	1,342	1,200	819	1,200	2,000
Information and Broadcasting	537	317	248	386	334	183	103	174
Community Development	70	60	95	56	115	72	160	77
Co-operatives	—	—	25	13	50	—	50	—
Government Staff Training	123	—	74	21	5	—	2	120
Family Planning Education	—	—	10	—	20	—	30	—
National Youth Service	30	33	10	19	10	43	10	73
National Sports	7	6	8	8	10	8	11	8
Local Authorities	400	780	400	3	400	124	400	100
TOTAL—SOCIAL SERVICES	3,919	3,143	6,284	3,184	6,039	5,084	5,512	7,360
SECURITY AND DEFENCE—								
Armed Forces	219	169	157	177	426	317	396	338
Police	195	172	295	167	277	199	150	279
Prisons	60	63	183	160	224	425	203	252
Approved Schools	10	10	53	17	53	14	12	36
TOTAL—SECURITY AND DEFENCE	484	414	688	521	980	955	761	905
TOTAL PUBLIC SECTOR EXPENDITURE	22,213	19,682	31,495	24,889	30,629	28,844	28,078	32,778

PUBLIC SECTOR DEVELOPMENT EXPENDITURE COMPARED TO ACTUAL AND ESTIMATED EXPENDITURES
(CURRENT PRICES)
1965/66 TO 1968/69

Table 2.29—(*Contd.*)

K£'000

	Plan 1965/66	Actual 1965/66	Plan 1966/67	Actual 1966/67	Plan 1967/68	Estimate 1967/68	Plan 1968/69	Estimate 1968/69
Less: Expenditure by public bodies excluding Central Government equals . .	8,485	4,891	12,097	7,500	9,917	7,545	9,090	6,699
CENTRAL GOVERNMENT DEVELOPMENT EXPENDITURE	13,728	14,791	19,398	17,389	20,712	21,299	18,988	26,079
Less: Transfer and recurrent type outlays equals	4,254	9,837	5,876	9,536	5,376	9,333	5,752	8,986
CENTRAL GOVERNMENT CAPITAL FORMATION UNDER DEVELOPMENT BUDGET	9,474	4,954	13,522	7,853	15,336	11,966	13,236	15,600
CENTRAL GOVERNMENT EXPENDITURE ON LAND TRANSFER AND DEVELOPMENT IN FORMER SCHEDULED AREAS	4,240	2,510	3,685	1,960	2,785	1,180	1,835	1,120

Table 2.30

COMPARISON OF DEVELOPMENT ESTIMATE EXPENDITURE WITH ACTUAL EXPENDITURE 1964/65–1967/68

(CURRENT PRICES)

K£'000

	1964/65			1965/66			1966/67			1967/68		
	Estimate Expenditure	Actual Expenditure	Over or Under Expenditure	Estimate Expenditure	Actual Expenditure	Over or Under Expenditure	Estimate Expenditure	Actual Expenditure	Over or Under Expenditure	Estimate Expenditure	Actual Expenditure	Over or Under Expenditure
FUNCTIONAL DETAIL—												
GENERAL SERVICES												
Administration:												
—Central	445	290	155	268	240	28	340	170	170	547	376	171
—Regional	15	50	−35	—	—	—	40	53	−13	60	35	25
—Local	—	—	—	13	30	−17	—	—	—	—	—	—
Law and Order	225	141	84	318	264	54	503	353	150	643	689	−46
Defence	170	132	38	219	169	50	250	197	53	450	333	117
Revenue, collection and financial control	—	—	—	33	21	12	6	12	−6	300	335	−35
TOTAL	855	613	242	851	724	127	1,139	785	354	2,000	1,768	232
COMMUNITY SERVICES—												
Roads	1,874	1,623	251	4,072	3,397	675	4,709	3,901	808	4,925	4,569	356
Water Works	235	198	37	512	483	29	738	564	174	864	785	79
Other	70	40	30	80	17	63	19	—	19	—	—	—
TOTAL	2,179	1,861	318	4,664	3,897	767	5,466	4,465	1,001	5,789	5,354	435

Table 2.30—(Contd.)

Comparison of Development Estimate Expenditure with Actual Expenditure 1964/65–1967/68 (Current Prices)

K£'000

	1964/65			1965/66			1966/67			1967/68		
	Estimate Expenditure	Actual Expenditure	Over or Under Expenditure	Estimate Expenditure	Actual Expenditure	Over or Under Expenditure	Estimate Expenditure	Actual Expenditure	Over or Under Expenditure	Estimate Expenditure	Actual Expenditure	Over or Under Expenditure
Social Services—												
Education	870	597	273	1,203	1,041	162	2,331	763	1,568	2,225	1,974	251
Health	155	142	13	260	170	90	392	225	167	1,107	872	235
Labour	11	10	1	10	10	—	16	16	—	—	—	—
Community Development	—	—	—	—	60	−60	62	1,342	−1,280	73	72	1
Housing	517	508	9	453	466	−13	1,416	56	1,360	1,100	819	281
Other	127	90	37	81	375	−294	479	407	72	227	234	−7
Total	1,680	1,347	333	2,007	2,122	−115	4,696	2,809	1,887	4,732	3,971	761
Economic Services—												
Agriculture	9,944	8,338	1,606	5,756	5,329	427	6,777	5,471	1,306	4,410	4,684	−274
Veterinary	262	153	109	215	211	4	380	182	198	239	241	−2
Forestry	368	118	250	432	195	237	885	789	96	579	635	−56
Game and Fisheries	13	13	—	174	146	28	154	114	40	122	191	−69
National Parks and Tourism	180	132	48	88	49	39	342	323	19	378	703	−325
Lands, Mines and Surveys, etc.	395	393	2	444	419	25	491	468	23	624	572	52
Commerce and Industry	56	33	23	69	62	7	662	527	135	653	732	−79
Transport and Roads	40	40	—	77	56	21	46	97	−51	23	203	−180
Total	11,258	9,220	2,038	7,255	6,467	788	9,737	7,971	1,766	7,028	7,961	−933
Other Expenditure—												
Transfer to Local Authorities	477	466	11	980	780	200	400	3	397	222	124	98
Government Printer	—	—	—	—	—	—	131	—	131	111	62	49
M.O.W. unallocable	80	78	2	165	112	53	340	324	16	107	271	−164
Other unallocable	36	36	—	45	150	−105	—	—	—	—	65	−65
	593	580	13	1,190	1,042	148	871	327	544	440	522	−82
Gross Total	16,565	13,621	2,944	15,967	14,252	−1,715	21,909	16,357	5,552	19,989	19,976	413

2.64. In the enterprise section, K£61.7 million or 20 per cent of total capital formation achieved was directed to the transport, storage and communications industry. This compares with K£45.2 million or 15 per cent capital formation being directed to agriculture and K£48.9 million or 16 per cent to manufacturing and repairing. It must, however, be stressed that all these figures of capital formation are gross of capital replacement and no estimates are available of the total annual cost of maintaining the stock of capital after depreciation. The rate of increase was, however, sufficient to indicate that there was a substantial net addition to the total capital stock.

2.65. The expenditure on different types of assets was as follows:—

CAPITAL FORMATION BY TYPE OF ASSET
(*new series* 1964 *prices*)

Table 2.31 *K£million*

	1964	1965	1966	1967	1968
Residential Buildings	7·2	7·6	8·3	10·0	11·8
Non-residential Buildings	5·0	5·1	5·5	8·2	10·8
Construction work	7·0	8·0	10·4	12·7	13·9
Land Improvement	1·6	1·2	1·3	1·4	1·7
Transport Equipment	9·7	8·5	11·8	16·4	14·1
Machinery and Equipment	15·0	14·6	17·8	26·5	23·5
Livestock	0·4	0·5	1·6	1·1	1·1
TOTAL	45·1	45·5	56·8	76·3	76·8

2.66. Construction expenditures were undertaken largely by the public sector, except that the electricity industry contracted for substantial work in connection with the Kindaruma Dam, as the first stage of the Seven Forks Hydro Electric Scheme. This latter was completed during the Plan period at a total cost of K£5½ million.

2.67. Construction in the public sector can be divided into two parts. That undertaken by the East African Community, largely relating to the provision of railway, harbour and telecommunication services and that provided by Central and local government. The latter expenditures covered, in the main, roads, water works and soil conservation. Road construction work by the Central Government expanded by more than ten times in real terms over this period.

2.68. A particular feature of the first plan period was the steady increase of capital formation arising as a result of community development projects, initiated by the people themselves to improve the services available to them. The total value involved in 1964 was K£0.6 million. In 1965

Capital Formation—Construction Expenditure

Central and Local Government—1964 Prices

Table 2.32 K£'000

	Roads	Water Works	Soil Conser-vation	Other	Total
Central Government					
1964	428·9	196·1	220·1	798·5	1,643·5
1965	1,258·8	140·3	223·0	908·8	2,530·9
1966	2,613·5	104·0	213·3	1,040·0	3,970·8
1967	3,695·2	101·1	194·2	976·7	4,967·2
1968	4,897·8	145·2	227·2	1,041·5	6,311·7
Local Government					
1964	451·5	158·1	—	112·7	722·3
1965	305·6	84·7	—	181·0	571·3
1966	322·5	184·8	—	445·4	952·7
1967	376·0	729·4	—	164·1	1,269·5
1968	332·9	540·0	—	81·1	954·0

it rose to K£0.79 million, in 1966 to K£1.23 million, in 1967 to K£1.35 million and in 1968 to K£2.0 million. The aggregation of these totals is carried out by valuing materials used at cost and labour contributions at their approximate market value.

Savings and the Finance of Investment

2.69. If Kenya were a country isolated completely from the rest of the world, savings would have to be made out of the resources created by current production in order to finance all domestic capital formation. Some part of current production would not be consumed immediately but would be "saved" in order to create capital assets to enhance future production. Within the economy as a whole savings would have to equal investment—gross national savings equal gross investment.

2.70. Since Kenya is not isolated in this way from the rest of the world, it is able to borrow money from other countries and international institutions. In these circumstances, gross national savings is less than gross investment by an amount equivalent to the balance of goods and services and factor payments in the country's balance of payments. This difference represents the contribution made by the rest of the world to gross investment in Kenya.

2.71. The position in terms of national accounting identities is set out in the following table:—

GROSS INVESTMENT AND NATIONAL SAVINGS, 1964–1968

(*at current prices*)

	1964	1965	1966	1967	1968
Gross Capital Formation	45·1	46·5	61·2	87·3	91·0
+Changes in stocks	2·3	5·5	16·2	6·7	2·6
=Gross Investment	47·4	52·0	77·4	94·0	93·6
–Net Contribution of rest of the World..	+7·6	–3·1	–6·9	–18·3	–19·1
=Gross National Savings..	55·0	48·9	70·5	75·7	74·5
Gross Domestic Product at Market Prices	356·0	357·0	415·1	439·8	464·0
+Factor Incomes From Abroad ..	4·4	4·9	8·6	7·7	12·0
–Factor Incomes paid Abroad	11·5	11·5	15·0	16·3	16·3
=Gross National Product at Market Prices	348·9	350·4	408·7	431·2	459·7
–Public Consumption	49·9	52·9	57·7	64·4	68·2
–Private Consumption	244·0	248·6	280·5	291·1	317·0
=Gross National Savings..	55·0	48·9	70·5	75·7	74·5
+Net Factor Income Paid Abroad ..	7·1	6·6	6·4	8·6	4·3
=Gross Domestic Savings	62·1	55·5	76·9	84·3	78·8

The contribution of the rest of the world to gross investment in 1964 is shown in the table with a positive sign, indicating that Kenya savings were, in fact, being utilized to finance investment abroad—gross national savings were higher than gross investment. The change from a position of net lender to net borrower since 1964 can be explained partly in terms of exchange control which was imposed over external financial flows from June 1965; for until that time private enterprises were sending a significant proportion of their savings abroad and the Kenya economy derived no benefit in consequence. The change can be also explained partly in terms of investment opportunities available. Since 1965, savings were retained in the country to finance investment and Kenya borrowed increasing amounts from the rest of the world. Over the five-year period as a whole, however, the total contribution of the rest of the world to Kenya investment was K£39.8 million or only approximately 11 per cent of total investment.

2.72. One of the features of the first Plan period has been that not only has investment been rising but that savings have been rising rapidly also, so that increasing proportions of G.N.P. have generally been put aside each year to finance investment. This is demonstrated by the following series:—

	1964	1965	1966	1967	1968
$\frac{\text{Gross Investment} \times 100}{\text{GNP}}$	13·6	14·8	18·9	21·8	20·4
$\frac{\text{Gross National Savings} \times 100}{\text{GNP}}$	15·8	14·0	17·2	17·6	16·2
$\frac{\text{Gross Domestic Savings} \times 100}{\text{GDP}}$	17·4	15·5	18·5	19·2	17·0

2.73. The contribution of the rest of the world to gross investment in Kenya over the period 1964-1968 totalled K£39.8 million. On the face of it, this might seem surprisingly low in the light of the substantial sums that have been received from overseas in the form of loans and grants during these years. Net recorded long-term capital inflows for the public sector alone, as shown in the following table on a balance of payments basis, totalled K£34.7 million.

LONG-TERM CAPITAL MOVEMENTS FROM ABROAD, 1964–1968

Table 2.34 *K£million*

	1964	1965	1966	1967	1968	Total
PUBLIC SECTOR CREDITS						
Central Government ..	1·9	9·2	10·3	3·6	7·4	32·4
Local Government	*Dr.* 0·1	—	*Dr.* 1·0	*Dr.* 0·4	*Dr.* 0·3	*Dr.* 1·8
Public Enterprises	1·3	0·4	3·2	6·8	*Dr.* 0·6	11·1
	3·1	9·6	12·5	10·0	6·5	41·7
PUBLIC SECTOR DEBITS						
Central Government ..	2·1	1·3	*Cr.* 0·6	*Cr.* 0·1	0·4	3·1
Local Government	0·4	1·3	—	0·1	—	1·8
Public Enterprises	1·2	0·4	*Cr.* 0·5	1·6	*Cr.* 0·6	2·1
	3·7	3·0	*Cr.* 1·1	1·6	*Cr.* 0·2	7·0
NET PUBLIC SECTOR CREDITS						
Central Government ..	*Dr.* 0·2	7·9	10·8	3·7	7·0	29·2
Local Government	*Dr.* 0·5	*Dr.* 1·3	*Dr.* 1·0	*Dr.* 0·5	*Dr.* 0·3	*Dr.* 3·6
Public Enterprises	0·1	—	3·8	5·2	—	9·1
TOTAL PUBLIC SECTOR NET CREDITS ..	*Dr.* 0·6	6·6	13·6	8·4	6·7	34·7

2.74. On the other hand, there was only a small inflow of private capital over the period as a whole. Until the imposition of exchange control over sterling transactions in June 1965, private enterprises were sending a significant proportion of their savings abroad and the Kenya economy derived no benefit in consequence. Since that time, there has been a recorded inflow of private capital but if the errors and omissions balancing item is included with recorded private capital flows (in accordance with normal convention and the probable true position) the total net figure for the period 1964-68 was only K£9.0 million. It is clear, however, that there was a substantial swing round over the period and the capital inflow was increasing rapidly by 1968.

NET PRIVATE LONG-TERM CAPITAL FLOWS, 1964–1968

Table 2.35 *K£million*

	1964	1965	1966	1967	1968	Total
Recorded Flows in Balance of Payments	*Dr.* 15·0	1·5	1·0	7·9	10·5	5·9
Balance of Payments errors and omissions	*Dr.* 5·1	*Dr.* 5·9	4·4	3·7	6·0	3·1
TOTAL	*Dr.* 20·1	*Dr.* 4·4	5·4	11·6	16·5	9·0

2.75. When net transfers and interest on government debts are taken into account, it can be shown, as in Table 2.36 below, that Kenya received over the period a net total of grants and loans from abroad of K£74.9 million, and it will be seen that of this total, K£39.8 million was used to finance domestic capital formation, K£14.0 million was used to pay interest on overseas general government debt and K£21.0 million was added to the country's foreign exchange reserves and short-term assets. Development was thus able to accelerate without any balance of payments constraint and whereas at the beginning of the period Kenya had only a small indepedent foreign exchange reserve (the main part was pooled on an East African basis) by the end of the period total reserves in the central monetary institutions were equivalent to over five months' imports.

Public Debt

2.76. Over the period 1964-68 the external public debt increased by 25 per cent and internal debt by 101 per cent. Total public debt as shown in Table 2.37 rose by 41.3 per cent or approximately 9 per cent per annum. Gross debt servicing charges rose rather faster, being 52 per cent higher in 1967/68 than they were in 1963/64. However, a significant part of the loans taken up by the Government were re-lent to other statutory agencies or individuals and the net cost of debt servicing to the Government increased much less.

RECONCILIATION OF CONTRIBUTION OF REST OF THE WORLD TO KENYA CAPITAL FORMATION WITH NET LOANS AND GRANTS FROM OVERSEAS, 1964–1968

Table 2.36 *K£million*

	1964	1965	1966	1967	1968	Total
1. *Net loans and grants* (Credits+)	−8·2	+8·0	+22·2	+21·0	+31·9	+74·9
Of which:						
Public Sector Net	−0·6	+6·6	+13·6	+8·4	+6·7	+34·7
Private Sector Net ..	−20·1	−4·4	+5·4	+11·6	+16·5	+9·0
Transfers Net	+12·5	+5·7	+3·3	+1·0	+8·7	+31·2
Minus:						
2. *Contribution of Rest of the World* World to Capital Formation (Net contribution =+) ..	−7·6	+3·1	+6·9	+18·3	+19·1	+39·8
Of which:						
Balance of Goods and Services	−14·7	−3·5	+0·5	+9·7	+14·8	+6·8
Net Factor Payments ..	+7·1	+6·6	+6·4	+8·6	+4·3	+33·0
Minus:						
3. *General Government Interest* Net (Net out flows =+) ..	+2·7	+2·4	+3·0	+2·9	+3·0	+14·0
Equals:						
4. *Change in Monetary Movements** (increase in assets =−) ..	+3·1	−2·4	−12·5	+0·6	−9·8	−21·0
Of which:						
Central Monetary Institutions	+1·9	−0·9	−7·1	−4·6	−7·6	−18·3

*Including short-term capital movements.

KENYA GOVERNMENT PUBLIC DEBT, 1964–68

Table 2.37

K£ million

Year as at 30th June	Total Debt*			Total Sinking Fund at Market Value	Gross Annual Debt Servicing Charges†			Interest and Loan Repayment Receipts	Net Cost of Servicing Charges
	External	Internal	Total		External	Internal	Total		Total
1964	68·12	17·99	86·11	7·88	3·76 (2·87)	1·45 (1·18)	5·21 (4·05)	2·04	3·17
1965	76·91	18·53	95·44	9·05	4·36 (3·23)	2·00 (1·18)	6·36 (4·41)	2·82	3·54
1966	86·10	19·34	105·44	9·99	4·79 (3·40)	2·92 (1·32)	7·71 (4·73)	2·89	4·81
1967	91·11	27·49	118·60	11·22	6·45 (3·77)	1·88 (1·48)	8·33 (5·25)	3·60	4·73
1968	85·49	36·17	121·66	11·01	5·56 (3·48)	2·35 (1·92)	7·91 (5·40)	3·99	3·92

*Excludes short-term borrowing.
†Interest payment shown in brackets.

2.77. These figures relate merely to debt incurred directly by the Kenya Government but the Government is also liable for part of the debt incurred by the East African Community. When these figures are considered together on a balance of payments calendar year basis, Kenya's external debt ratios are those set out in Table 2.38. It is clear that in spite of the substantial increase in the total debt incurred, the annual cost of servicing that debt has only advanced in proportion to receipts for goods and services—and, therefore, the burden of the external public debt on the economy did not increase over this period. The ratios are higher in both 1964 and 1968 as a result of abnormally high redemption payments in those years.

Table 2.38

CHANGES IN EXTERNAL DEBT RATIOS, 1964–1968

K£million

	1964	1965	1966	1967	1968*
A. 1. Interest on Kenya Public Debt ..	2·9	3·1	3·6	3·4	3·5
2. Redemption	7·7	2·7	1·5	2·5	1·5
TOTAL	10·6	5·8	5·1	5·9	5·0
B. 1. Interest on Kenya's share of E.A.C. Debt	1·3	1·1	1·9	2·5	2·0
2. Redemption	0·6	0·4	0·9	1·0	7·3
TOTAL	1·9	1·5	2·8	3·5	9·3
C. TOTAL A+B	12·5	7·3	7·9	9·4	14·3
D. Total Current a/c Export Earnings (excluding transfers)	124·7	124·3	144·8	138·3	144·4
E. Gross Domestic Product	331·4	330·5	385·0	406·7	430·7
F. Gross Domestic Savings	62·1	55·5	76·9	84·3	78·8
Ratio of Debt Costs to External Receipts for Goods and Services =C/D×100	10·0	5·9	5·5	6·8	9·9
Ratio of Debt Costs to Gross Domestic Product =C/E×100	3·8	2·2	2·1	2·3	3·3
Ratio of Debt Costs to Domestic Savings =C/F×100	20·1	13·2	10·3	11·2	18·1

*Provisional

The Distribution of the Benefits of Economic Growth

2.78. Although total investment fell short of the Plan target during 1964-68, the achievement of the target rate of production growth in the economy as a whole meant that national prosperity increased as had been projected. In addition, the level of real consumption increased as fast as expected, indicating that a higher level of goods and services were consumed by the people as a whole. By themselves, however, these data do not show how the benefits of higher productivity and consumption were distributed amongst different sections of the population, whereas the Plan emphasized that Government policy was to work towards a more equitable distribution of income. Unfortunately, insufficient data are available to compile a complete analysis of the distribution of personal incomes over this period but there are indications to show that, in broad terms, the monetary incomes of lower paid people rose faster than those of others.

2.79. Although gross domestic product increased at current prices by an average rate of 6.8 per cent, the total remuneration of people in employment increased at the relatively faster rate of 8.0 per cent over the period. In addition, the gross cash incomes of small farmers increased at an average rate of growth of 10 per cent. It is clear, therefore, that profits of larger enterprises and rental incomes increased relatively slowly compared with wages and small farm incomes. The policy of equalizing net incomes was advanced further by a reduction in the tax free allowances of those paying income tax; and as a result of the fact that only people earning an income well in excess of the average paid income tax at all, this meant that the richer sections of the population were contributing relatively more to the cost of Government services, and the gap between final net incomes was less than the gap between gross incomes.

2.80. Relative real incomes were also influenced by the widening of education opportunities by 1968, when Central Government and Local Government together contributed 67 per cent of the total cost of primary education and 73 per cent of the total cost of secondary education, with Forms V and VI being completely free. Free out-patient services at health centres and free in-patient treatment for children in hospital should also be counted as part of the improvement of real income over the period.

2.81. Wage earners in full-time regular employment improved their position. Average wages increased from K£185 in 1964 to K£242 in 1968 an improvement of over 30 per cent. The improvement in wage levels was general throughout the whole wage distribution as is shown by the series in Table 2.39.

Table 2.39

DISTRIBUTION OF WAGES OF REGULAR EMPLOYEES, 1964–1968

Percentages

Shillings per month	Under 99	100–149	150–199	200–299	300–399	400–599	600–999	1000–1499	1500–1999	2000–3999	4000 and over	Total
1964	39·5	16·5	11·2	12·8	5·9	4·2	4·0	2·9	1·1	1·5	0·4	100
1965	30·4	15·8	14·2	14·7	8·0	5·6	4·5	3·3	1·3	1·7	0·5	100
1966	26·4	13·2	11·7	17·8	8·2	8·3	5·1	4·3	1·9	2·4	0·7	100
1967	23·3	11·5	11·4	19·3	9·2	9·3	6·2	4·4	2·0	2·6	0·8	100

2.82. The average small farmer did not improve his position as much as the average wage earner, although the position of farmers improved more rapidly than previously. It has already been noted that small farm cash income increased by 46 per cent and if this is considered together with the estimated non-cash income (household retained production) total income is seen to have increased by 23 per cent, an average rate of 5.3 per cent per annum. Average income per family did not of course increase at the same rate; for the number of families dependent on agriculture probably increased by over 3 per cent. On the other hand, opportunities for earning income in the rural areas outside of agriculture widened appreciably and perhaps the best overall indicator of rising incomes in the rural areas is given by the number of people paying graduated personal tax to the county councils in each tax bracket. If this is taken as a proxy of the rural income distribution, a general improvement is evidenced, particularly if account is taken of the fact that better tax assessment should, probably, have put many tax payers into a higher income bracket.

INCOME DISTRIBUTION OF PERSONS PAYING GRADUATED PERSONAL TAX IN COUNTY COUNCIL AREAS, 1964–1968

Table 2.40 *No. of Taxpayers*

INCOME K£S PER ANNUM	1964	1965	1966	1967	1968
Under 96	468,495	472,853	479,440	460,821	610,053
96–144	30,409	38,032	51,454	50,497	47,116
144–204	11,623	13,646	16,647	19,052	17,295
204–312	5,437	6,510	7,869	10,056	10,422
312–420	2,483	2,621	2,811	3,567	3,914
420–516	1,175	1,167	1,330	1,561	1,718
516–600	671	712	764	888	892
600 and over	5,267	5,317	4,946	5,793	5,689
GRAND TOTAL ..	525,560	540,858	565,261	552,235	697,099

2.83. One of the most important ways by which the benefits of economic development were distributed more widely was through an expansion of employment opportunities generally. The census of population taken in 1962 indicated that the number of people to be supported by the economy was growing at a rate of more than three per cent per annum. There was also evidence that the rate of growth itself might be rising although the circumstances controlling this were themselves subject to change. A rate of population growth of the order of three per cent per annum placed strain on the resources of the country, since it was necessary to utilize the first three points of each year's annual growth rate of the economy simply to maintain standards of living without providing any improvement at all. This is always one of the most critical problems of developing countries and in Kenya the situation at the time of Independence was exacerbated by substantial numbers of workers losing their jobs as a result of an earlier rundown of the building industry from the top of a boom and general uncertainty affecting investment. Since Independence, the number of adult males in the 15-54 age group is estimated to have risen from 2,075,000 in 1964 to 2,379,000 in 1968 —a rise of approximately 300,000. This number of men came into the economy seeking work to join those already unemployed in 1964.

PERSONS ACTIVELY ENGAGED, 1964 AND 1968

Table 2.41 '000*s*

	WAGE EMPLOYED		SELF EMPLOYED		FAMILY WORKERS		TOTAL ENGAGED	
	1964	1968	1964	1968	1964	1968	1964	1968
Agriculture	482·5	556·6	828·0	950·0	1,923·3	2,172·8	3,263·8	3,679·4
Forestry	16·3	20·3	2·0	2·4	1·4	1·7	19·7	24·4
Fishing	4·9	6·4	4·4	5·5	2·0	2·4	11·3	14·3
Mining	3·6	4·6	0·9	1·2	0·2	0·3	4·7	6·1
Manufacturing	68·5	82·7	15·6	19·5	4·8	7·4	88·9	109·6
Building	20·2	34·4	1·7	2·0	0·5	0·7	22·4	37·1
Electricity and Water ..	5·0	5·8	0·2	0·3	—	—	5·2	6·1
Transport, etc.	32·3	55·0	1·1	1·4	0·3	0·3	33·7	56·7
Trade	60·9	56·9	33·7	39·7	13·0	16·7	107·6	113·3
Banking, etc.	6·5	8·9	—	0·3	—	—	6·5	9·2
Services	51·3	58·6	10·8	13·3	4·1	5·2	66·2	77·1
Households	31·9	37·6	—	—	—	—	31·9	37·6
General Government ..	124·6	129·1	—	—	—	—	124·6	129·1
TOTAL	908·4	1,056·9	898·4	1,035·6	1,949·6	2,207·5	3,786·5	4,300·0

2.84. In broad terms, these 300.000 men maintained themselves as follows: 140,000 obtained wage employment, 140,000 became self-employed mainly as farmers and the remainder maintained themselves on family farms. This is rather an over-simplification of the total estimated number of males in wage employment, self-employed males and adult male family workers is higher than the total number of males estimated to be residing in the urban and agricultural areas (the pastoral districts have been excluded).

2.85. The explanation of this apparent discrepancy is a simple one, but underlines the immense difficulty of obtaining meaningful statistics of employment and unemployment in a developing rural economy—many persons will have been recorded in more than one employment category at the same time. Thus, a self-employed resident on his farm would have been recorded as such (if he was not resident on the farm at the time of the enumeration he was not counted as self-employed). At the same time, the farmer recorded as self-employed may have owned a small shop or operated a small transport business and have been recorded as a self-employed man against one or other of those occupations. Many farmers were unable to produce sufficient income from their own farms and from time to time accepted casual wage employment on a neighbour's farm. This applied also to family workers who were recorded as such if they were living on the farm, although in various degrees they might seek employment on other farms and a proportion of them would have been recorded in wage employment. Finally, persons in wage employment sometimes reinvested part of their earnings in a small business that would be operated by their wives or paid employees. Ideally, perhaps, the working population should only have recorded against their *principal* source of earnings but in practice, this was very difficult to do and requires surveys in greater depth than was possible during these years.

2.86. It should also be recognized that many of the people shown as family workers would in fact have been *underemployed* and national productivity would have been increased if other employment opportunities had been available for them. The fact that it is now possible to set out more comprehensive employment statistics does not mean that it is possible to estimate realistically levels of unemployment and underemployment.

2.87. The data do, however, suggest that over the period 1964-68 the country kept abreast of the race to create new job opportunities whether as wage employment, self-employment or as family employment. They also suggest that there was some improvement in the situation after 1964. Gross Domestic Product increased at an average rate of 6.3 per cent. The numbers of persons engaged increased by an estimated 3.2 per cent—but the numbers in wage employment rose at an average rate of 3.8 per cent. Increases in labour productivity are an inevitable feature of economic development at any stage but an increase of wage employment equivalent to 61 per cent of the growth of the monetary economy might be considered disappointing taking into account the amount of underemployment.

2.88. The projection of employment in the Development Plan showed an increase in employment in the monetary economy of 6.3 per cent, compared with a projected increase in the product of the monetary economy of 7.1 per cent. This increase in wage employment equivalent to nearly 90 per cent of the increase in monetary product was not achieved and it was probably over-ambitious to suggest in the Plan that it might have been. Even so, the expansion of wage employment opportunities, particularly, wage paid opportunities was one of the more disappointing features of Plan performance, largely because the expansion of output in the towns did not lead to any comparable expansion of regular urban employment. Much the greater part of the increase in employment opportunities over the period 1964-68 occurred with respect to casual employment in the rural areas. This meant that a greater share of the economic benefits of development were being obtained in rural areas but, at the same time, that the job expansion in the urban areas necessary for long-term development was not taking place sufficiently rapidly. The creation of employment opportunities will be given more emphasis in the new Plan.

CHAPTER 3—ECONOMIC AND PHYSICAL PLANNING

Economic Planning

When Kenya attained Independence in December 1963, the Government set up an economic planning organization and made it clear that it intended to plan the use of the country's resources as a means of achieving its social and political objectives. In Sessional Paper No. 10 of 1965 on "African Socialism and its Application to Planning in Kenya", it was stressed that the achievement of many of the country's ultimate goals depended on rapid economic growth. The Paper also emphasized that realization of such rapid growth required careful planning, especially in order to ensure that the growing national income was utilized for promoting further growth and for raising the people's welfare more equitably. Planning involves the identification of the obstacles to and opportunities for development, the determination of priorities and the formulation of policies and programmes for removing obstacles and exploiting fully the opportunities available. Rapid and orderly economic and social development cannot be realized if the growth of the economy is left to take its own course. Given the nation's objectives, the implications of alternative policies must be carefully analysed and the costs and benefits of particular projects and programmes determined. It is also important to ensure that the various proposals put forward by Government and the private sector are consistent both in objective and timing.

The Planning Process in Kenya

3.2. Initially, the planning function was vested in a joint Ministry of Finance and Economic Planning, but when Kenya became a Republic in December 1964 a separate Ministry of Economic Planning and Development was created to be responsible for overall economic planning and co-ordination. At first this was a small centralized ministry but as proposed in the 1966-70 Development Plan, the planning machinery was extended to the provinces. The Ministry's operations now include the co-ordination of planning and plan implementation through local development committees, and the study of development problems and potential at provincial and district levels.

3.3. Although overall economic performance so far has been quite satisfactory when plan targets are compared with results, some shortcomings in the planning and implementation machinery of Government have been apparent and it is therefore proposed to strengthen the planning and administrative organizations in order to overcome these shortcomings and to focus the activities of the Government machinery as a whole more sharply towards positive economic development rather than mere passive administration. The principal difficulties apparent during the first Plan were:—

(i) *Inadequate Project Preparation.*—Insufficiently detailed preparation of projects which caused delays in negotiations for financing and therefore in plan implementation.

(ii) *Scarcity of Key Personnel.*—Serious shortages of professional and technical manpower, not only of planning economists but also of engineers, architects, agriculturalists and doctors required to design plans and execute projects and programmes has been a serious constraint. The need for technical assistance in these areas has not always been anticipated in time but in addition there has been difficulty in obtaining some grades of manpower under technical assistance because of their scarcity in the world as a whole.

(iii) *Insufficient Co-ordination.*—Successful plan implementation requires that all economic activities should be carefully co-ordinated. Many projects and programmes are complementary or inter-related but delays in implementing particular projects have slowed down related projects. There have been some weaknesses in co-ordination which have to be removed.

(iv) *Lack of Commitment to the Plan.*—Some of the unsatisfactory performance in the public sector can be attributed to insufficient commitment to the Plan and its implementation. There have been cases where projects not included in the Plan were given preference over planned projects and in some cases development expenditure estimates were prepared by Ministries without paying sufficient attention to the Plan. Poor scheduling of project implementation by some ministries also contributed to unsatisfactory performance in the public sector. It is important that all Government ministries and agencies, private organizations and individuals adhere to the agreed plan for development in executing their individual programmes.

(v) *Local Authority Programmes Excluded.*—The 1966-70 Plan did not include adequate programmes and policies for such local authority services as primary education, health services, water supplies and roads. Consequently, the financial and administrative resources of these authorities were not considered in the light of their full development responsibilities.

(vi) *Inadequate Organization of Rural Development.*—The first two plans paid insufficient attention to programmes and projects for the development of rural areas. Rural development was insufficiently integrated into the overall plan although emphasis has already changed towards a co-ordinated and integrated rural development programme. A start has been made on a special rural development programme on a pilot basis in a number of selected areas throughout the country.

The Need for a new Plan

3.4. It is the Government's policy that each Plan should be revised after an interval of two or three years in order to reflect the development of economic and social policy, to improve and extend the project content, and to devise measures for dealing with the problems that have retarded progress such as those discussed above. It has become necessary to revise and extend the 1966-70 Plan for a number of reasons. Firstly, of course, the approach of the final year of the first Plan means that new programmes are required for the early nineteen seventies. Secondly, a number of important policy decisions have been taken by the Government since the publication of the 1966-70 Plan, including new policies for education, incomes, housing, and local authorities. Thirdly, events have shown that earlier targets can, realistically. be raised, particularly if the people's enthusiasm for development through self-help efforts can be adequately organized. In addition, planning for further Kenyanization of the economy, integrated rural development and higher employment has become even more vital than was the case four years ago. Fourthly, external circumstances, such as the implications of the Treaty for East African Co-operation, and the association of the East African Community with the European Economic Community, have now to be taken into account. Fifthly, there is need to give greater emphasis to district planning for such facilities as health centres, primary and secondary school enrolment, water supplies and housing. Finally, there is need for improved projections of technical assistance and other manpower requirements; a better assessment of private sector (especially manufacturing and tourism) development potential, and planned co-ordination of self-help efforts.

Planning Organization

3.5. This document is concerned mainly with the allocation of national resources for the new Development Plan, a discussion of new policies within which the Plan will be implemented and the investment and spending programmes which will represent that implementation. This chapter is less concerned with policies or programmes than the organization of government necessary to implement them. In particular, it is concerned with obtaining an improvement in the planning organization. The organization of planning after Independence has been described above and it has been indicated that weaknesses in this organization have become apparent. The main reason for these weaknesses has been that the planning organization has not been able to develop as rapidly as required to cope with the expansion of the government development programmes. These short-comings have in the main been caused by a shortage of planning manpower, particularly local manpower able to provide the necessary continuity and experience in the planning process which cannot be filled by expatriate recruitment.

3.6. The Government has been aware over the last few years that it was insufficient to centralize all planning functions within the Ministry of Planning and Development and that if policies and programmes were to be developed at an adequate speed, planning units must be set up within the operating Ministries. Such planning units have already been set up within the Ministry of Agriculture and the Ministry of Commerce and Industry, while planning officers have been seconded to the Ministry of Natural Resources and the Ministry of Tourism. There is, however, an urgent need for the existing planning units in the operating Ministries to be strengthened further while other Ministries have an urgent need for similar units. The development of planning units within the operating Ministries has not preceded as fast as Government would wish as there has been an acute shortage of planning economists adequately trained to fulfil the planning functions.

3.7. The Government has two proposals to overcome this problem. They are:—

(i) The creation of a Scheme of Service for economists within the civil service. All professional economists working for the Kenya Government in a number of different capacities are now under the overall administration of the Permanent Secretary, Ministry of Economic Planning and Development. Economists are now subject to transfer to any Ministry. This should permit a more efficient allocation of the scarce planning resources available to the Government while at the same time offering improved career opportunities for economists in the service.

(ii) In order to increase the supply of professional economists to meet the demands of ministries for planning units, a new degree course has been inaugurated at University College, Nairobi leading to a Bachelor of Philosphy degree in Economics. This is a post-graduate degree course designed, in large measure, specifically to improve the training of junior economists to bring them up to the standard required for them to become members of the Economic Service. It is planned that the output of economists with the B. Phil. degree should be sufficient, in the main, to meet Government's need for such economists by the end of the new Plan period. It is, however, expected that further part dependence on expatriate economists will be required in the first half of the Plan period.

Provincial and District Committees

3.8. In accordance with the proposals in the "Green Plan" co-ordination at the provincial and district levels has been improved by setting up a system of development committees at both the provincial and district levels. There are basically two types of committees: Provincial and District Development

Committees consisting of Government officials and Provincial and District Development Advisory Committees which have wider membership. The composition of the committees is as follows:—

PROVINCIAL DEVELOPMENT COMMITTEE*

Provincial Commissioner—*Chairman.*

Provincial Planning Officer—*Secretary.*

Provincial Director of Agriculture.

Provincial Medical Officer.

Provincial Education Officer.

Provincial Physical Planner.

Provincial Community Development Officer.

Provincial Engineer.

Provincial Co-operative Officer.

Provincial Trade Officer.

* Other Provincial Officers may attend and will be expected to attend when matters related to their duties are being discussed.

PROVINCIAL DEVELOPMENT ADVISORY COMMITTEE

Provincial Commissioner—*Chairman.*

Provincial Planning Officer—*Secretary.*

All other Members of the Provincial Development Committee.

All Members of Parliament from the Province.

Two leading citizens to be nominated by the Provincial Commissioner in consultation with the Provincial Development Committee.

DISTRICT DEVELOPMENT COMMITTEE*

District Commissioner—*Chairman.*

Provincial Planning Officer—*Secretary.*

Provincial Physical Planner.

District Community Development Officer.

District Agricultural Officer.

Medical Officer of Health.

County Education Officer.

District Representative of Ministry of Works.

Clerk to County Council.

District Co-operative Officer.

* Other District Heads of Departments may attend and will be expected to attend when matters related to their duties are being discussed.

District Development Advisory Committee

District Commissioner—*Chairman.*

Provincial Planning Officer—*Secretary.*

All other Members of the District Development Committee.

All Members of Parliament from the district.

Three members of the County Council (including the Chairman).

The Chairman of the KANU District Branch.

Two eminent citizens nominated by the District Commissioner in consultation with the District Development Committee.

Nairobi and Mombasa Development Committees

Permanent Secretary, Ministry of Local Government—*Chairman.*

Permanent Secretary, Ministry of Finance.

Permanent Secretary, Ministry of Economic Planning and Development.

Permanent Secretary, Ministry of Education.

Permanent Secretary, Ministry of Health.

Permanent Secretary, Ministry of Housing.

Permanent Secretary, Ministry of Commerce and Industry.

Permanent Secretary, Ministry of Lands and Settlement.

The District Commissioner, Nairobi and the District Commissioner, Mombasa, are members of the Nairobi and Mombasa Committees respectively.

Departmental Heads of Nairobi City Council and Mombasa Municipal Council are also members of their respective committees.

Other Permanent Secretaries can also attend meetings of these committees when matters relating to their ministries are being discussed.

3.9. The functions of these committees are to co-ordinate and stimulate development at the local level by involving in the planning process, not only Government officials but also the people through their representatives. During the new Plan period, efforts will be made to make the committees, especially the advisory committees, increasingly effective. During the preparation of this Plan, Provincial and District Development Committees played an important role in the formulation of new programmes. These programmes have been incorporated into the Ministry programmes where this was appropriate and, as far as this was possible, the priorities assigned to the local projects by the Provincial and District Development Committees have been accepted. However, now that the new Plan has been drawn up, the local committees will become a major instrument in Plan implementation.

Provincial Planning Organization

3.10. In order to increase the effectiveness of the District and Provincial Development Committees and to undertake the necessary detailed analysis of the projects at the local level, the Government appointed Provincial Planning Officers to all provinces except North-Eastern during the first Plan period. During the new Plan a Provincial Planning Officer will be posted to North-Eastern Province and if sufficient manpower is available it is proposed to increase the professional planning capacity at provincial level.

3.11. As an interim measure, integrated planning teams have been recruited under technical assistance and posted to Coast, Eastern and Central Provinces. These teams are studying the development problems of the three provinces in detail and making recommendations to the Government on measures for their solution. Planning teams will be sent to other provinces during the new Plan.

3.12. In addition, more impetus to the development process will be obtained by accelerating the shift of emphasis in the work of the provincial administration from public administration towards development administration in which the principal objective will be to achieve rapid development to raise the people's welfare. The traditional colonial emphasis on the maintenance of law and order and the collection of taxes will be changed in order to give additional emphasis to the administration of development. The administrative machinery must be development-minded and adequately informed about the country's development problems in order to seek solutions to these problems at the local level. Training programmes will, to a much greater extent, cover courses of instructions in development administration and development problems in order to equip the administration with the necessary training for this task.

District Development Centres

3.13. Much of the responsibility for the co-ordination of development programmes at the local level will fall on the provincial administration, departmental officers and the provincial planning officers, and in order to overcome the problems of unco-ordinated and uneconomic duplication of training programmes at district level by a number of Ministries and Departments, attempts will be made to integrate all Government training centres and educational and training programmes available to rural communities into one multipurpose institution for each district to be known as the District Development Centre. Two such centres will be started early in the Plan as a pilot project and their progress will be evaluated after two years. If they are found to be achieving their objectives, as hoped, similar centres will be established in other districts as rapidly as possible.

Strengthening of Central Planning Organization

3.14. Although the district and provincial planning organizations will be strengthened as outlined above, it is not the intention of the Government that responsibility for plan co-ordination should be decentralized to the local level. The capacity of the central planning ministry—the Ministry of Economic Planning and Development—will continue to be built up as manpower becomes available and in addition there are three new proposals to strengthen co-ordination in order to overcome weaknesses that have become apparent: —

(i) *National Rural Development Committee.*—In order to overcome the particular problems of co-ordination involved in the rural development programme, the Government has set up a National Rural Development Committee, the composition of which is discussed in Chapter 6.

(ii) *National Development Advisory Committee.*—A National Development Advisory Committee will be set up to attempt to overcome some of the problems arising from the inadequacy of communication between the Central Government and the private sector. Government considers it important that the private sector be involved to a much greater extent in the formulation and execution of Plans. Accordingly, the National Development Advisory Committee will be set up and be composed of representatives of the private sector and the Government. The Committee will be advisory but will be asked to make proposals for rapid commercial, industrial and agricultural development, and to ensure that problems of the private sector are brought to the notice of the Government.

(iii) *Project Preparation and Evaluation Unit.*—It is proposed that projects should be prepared in greater detail such as is necessary to negotiate aid and to evaluate the benefits and to assign priorities adequately. To this end, a project preparation and evaluation unit will be set up in the Ministry of Economic Planning and Development. Although the unit, will be assigned to the Ministry of Economic Planning and Development, it will be expected to work in the operating ministries and other agencies to prepare projects and programmes. The unit will also be required to develop criteria and techniques for project preparation and evaluation in order that the procedures may be consistent in all ministries and to overcome the problems arising from lack of training in this specialized field.

Plan Implementation

3.15. Shortfalls in the implementation of the last Plan was a matter of considerable concern to the Government and much thought has been given to how this problem might be overcome. Further investigation will be carried out at the beginning of the new Plan period in order to evolve new procedures to evaluate the rate of Plan implementation. Government accounting will now be centralized through a computer within the Treasury, which provides a mechanical means to obtain information on the rate of expenditure on individual projects. A system of coding projects within the computer to obtain this information will be worked out in the new Plan period.

3.16. In addition, in order to overcome shortfalls in Plan implementation arising from manpower shortages, ministries will be required to indicate not only their capital and recurrent finance requirements for particular programmes but also the manpower reqirements. These will be considered in detail together with the financial requirements by the Ministry of Economic Planning and Development, the Treasury and the Directorate of Personnel. The Government has already set up a management services unit in the Directorate of Personnel whose functions are:—

(*a*) To review the establishment of posts throughout the Civil Service and to make recommendations on the growth of the establishment;

(*b*) to study the functions of the various ministries and to recommend an appropriate reorganization of these ministries in order to achieve greater efficiency; and

(*c*) to review the Civil Service with a view to recommending an optimum utilization of manpower within the service.

These functions will be considered within the context of development priorities.

Annual Estimates of Expenditure

3.17. Finally, the preparation of the annual financial estimates will be integrated more closely with the financial estimates contained in the Plan in order to obtain stricter adherence to the Plan programme. Generally, the annual expenditure totals will approximate closely to those outlined in the Plan and generally also the expenditure programmes will follow closely to those outlined in the Plan. It is however possible that some programmes may be implemented more rapidly than suggested here and some more slowly. In that event these two factors will be balanced out in order to obtain overall adherence to the Plan programmes taking one year with another. In order to overcome some of the problems of implementation arising from the fact that development estimates have generally only been considered once a year, in future, two-year expenditure programmes will be included in the published estimates, so that ministries can maintain the spending impetus through from the end of one financial year to the beginning of another and avoid the situation of Government development spending proceeding in short annual bursts.

The People's Participation

3.18. It must be recognized that the above measures, though significant, can achieve little by themselves unless the people fully participate in the development process. It is only through such involvement that the development targets can be achieved, and the resulting benefits enjoyed by the people. But the interest of the people in the development effort must be stimulated through a sustained campaign. Efforts will be made to ensure that the new Plan is thoroughly understood, by the publication of a popular version of the Plan and a country-wide campaign to publicize and explain at all levels the meaning, content and requirements of the Plan. The campaign will be channelled through the radio and television, adult education classes, seminars, pamphlets, etc. A programme for this purpose is already under-way.

Research and Statistics

(i) *Research*

3.19. Research has two major objectives in the context of development—firstly, the advancement of knowledge in order to enable development programmes to be drawn up using improved technologies and secondly, the investigation of specific problems which impede rapid economic development. Partly because of limited resources and partly due to the stage of economic growth that they have reached, countries such as Kenya cannot undertake research of a fundamental kind on an extensive scale. Nor is this necessary as the body of scientific knowledge that has been developed in the rest of the world is, by and large, at their disposal for exploitation. However, such knowledge may require appropriate adaptation to local conditions before it can be effectively used. It is applied research of this nature which must be emphasized and to which resources must be devoted. Research of the second type, directed at maintaining or enhancing existing levels of productivity may also be of an "adaptative" sort but could equally well require new and more fundamental investigation. The solution to the problem of Coffee Berry disease is a good example of the problems at which such research is directed.

3.20. Outside University College, Nairobi, most of the research undertaken in the country is related to agriculture and veterinary services and, to a lesser extent, forestry and health. This research is carried out at stations which are run either by individual ministries of the Government or by the East African Community. Among Government ministries, agriculture is the most important in this field. For research undertaken by Government ministries, priorities have in the past been determined by individual ministries and resources for undertaking research obtained through the budget. Technical assistance has also been important, particularly in regard to the supply of scientific personnel and equipment. Although machinery to control and direct research in the East African Community does exist, this has not worked very satisfactorily and, a working party set up by the Community has been examining this and other problems of research undertaken by the Community.

3.21. For historical reasons, scientific research in Kenya has not been as closely integrated into national development priorities as it ought to be. In order to overcome this and to maximize the contribution of research to national development, it is intended to establish, during the Plan period, a National Research and Scientific Council whose broad objectives will be as follows:—

(a) to encourage the application of science and technology to national, economic and social objectives;

(b) to advise the Government on, and to assist in, the establishment of priorities for scientific research related to the development of industry, agriculture and medicine;

(c) to co-ordinate research in all its aspects; and

(d) to secure wide dissemination of the results of research.

3.22. The council will be representative of Government and non-Government interests and will have a permanent secretariat with a full-time officer in charge of it. Sub-committees of the council to deal with specific fields will be set up. It will recommend a co-ordinated research budget to the Government annually and will also have evaluation machinery to assess the benefits of research. Ministerial responsibility for the council will rest in the Ministry of Economic Planning and Development.

3.23. While the council will concern itself primarily with scientific research, social research will not be neglected. For several years now, the Institute for Development Studies at University College, Nairobi, has worked in close co-operation with the Government and orientated its research effort deliberately towards investigations relevant to economic and social development. It is expected that the overall research programme of the Institute will continue to reflect priorities suggested by development needs. Research clearance for all new research proposals will, as now, be required.

(ii) *Statistics*

3.24. The function of collection, correlation, analysis and publication of statistics is vested in the Statistics Division of the Ministry of Economic Planning and Development. One of the important functions of the Statistics Division is the production of statistics required for development planning purposes. The availability of statistical data is a prequisite for development planning. While the Division has been able to supply a growing amount of the data required, gaps do remain. These gaps are important in determining the future work of the Division, and attempts are being made to fill these gaps to the extent that resources allow. A great deal of information on the "modern sector" is now available but additional statistical personnel with the necessary training are required to undertake more detailed analysis of available data to maximize their use for planning purposes.

3.25. Important statistical exercises now being undertaken and to be continued include household budget surveys to obtain information on income and expenditure patterns (from which, *inter alia*, demand can be projected), attempts from these surveys and other sources to develop an adequate picture of savings, construction of an input/output table, improvement of balance of payments statistics (including tourist surveys), expansion of knowledge on small-holder agriculture and employment in the rural areas as well as the nature and extent of rural non-agriculture economic activity, and a variety of what are now routine annual surveys of the "modern sector". The larger part of a fundamental revision of the national accounts has been completed but some refinements will have to be made. More reliable and comprehensive information on incomes, expenditures and prices is also necessary. Although fairly comprehensive educational statistics are now available, this cannot be said for statistics relating to other social services, notably health. This deficiency will be remedied.

Physical Planning

The Objectives of Physical Planning

3.26. This section described the process of physical planning at national, regional and local level undertaken by the Town Planning Department of the Ministry of Lands and Settlement in conjunction with the Ministry of Economic Planning and Development and operating ministries as a basis for the Government's strategy on physical development.

3.27. Physical planning is concerned with development which involves the use of land, causes the movement of people or goods, or modifies the physical environment. It deals with emerging patterns of production and residence, and the distribution throughout the country of the physical infrastructure of development: roads and railways, power plants, shops and factories, public buildings, houses, schools and hospitals. Physical planning in Kenya has two principal objectives. Firstly, in a national or regional context, to plan a national framework or strategy for the location of capital investments. Secondly, in the urban context to plan both, large and small towns in detail, so as to produce co-ordinated economic land use for development projects within a satisfactory environment.

3.28. Physical planning work at national and regional level has been divided into three phases. The first phase consists of the compilation of an "inventory", including the preparation of a map, of all physical data which may influence investment decisions. These factors include the distribution of population, the location of existing infrastructure and the pattern of settlements, roads, railways and communication, agriculture potential, the location of natural resources, including areas of tourist potential, and the physical constraints and potentials of the region including topography, climate, water supply, and soil types.

3.29. The second phase consists of an analysis and projection of such dynamic factors as population growth and migration, economic development, technical and cultural change and the rate of urbanization.

3.30. The third phase is the preparation of a "strategic plan" or plans, including operational maps and supporting statements. The preparation of this plan is a complex process consisting, primarily, of a synthesis of development resources and of the planning proposals of all the various ministries and agencies concerned with physical development. The purpose is to show in comprehensive form the Government's strategy for physical development throughout the country. In so far as decisions have already been made, the strategic plan will therefore show such fundamental proposals as—

(i) major cities and towns selected for intensive growth;

(ii) a network of smaller towns and villages as administrative and social centres and centres of economic development to serve the local needs of the people in rural areas;

(iii) the development of the road, rail, air and communication network and the extension of the power grid; and

(iv) action areas for agricultural and other resources development.

3.31. The physical plan will enable future development to be co-ordinated with other policies of the Government, so that ministries and private investors will have a blue print to guide them in the best siting of projects. For example a new manufacturer of office equipment looking for a site may be willing to locate it in a town scheduled as a major growth centre, rather than adding to the congestion of Nairobi. Similarly a new branch of a commercial bank, a secondary school built by *harambee* initiative or a marketing board store for collecting agricultural produce, will be of much greater benefit to the rural community and contribute to the economic growth of the area if they are located in designated rural growth centres to which all-weather roads are to be built and to which it is planned to extend the electricity supply and telephone service.

3.32. However, the physical plan should not be considered as an inflexible instrument. It will take the form of several plans and statements and will be subject to periodic review. The physical planning process in Kenya has not yet developed to the point at which statements of policy can be made covering all aspects of physical development but a great deal of detailed preparation work has now been accomplished, in the three planning phases already mentioned, to form a satisfactory basis for many important decisions.

Existing Development and Trends

3.33. The pattern and characteristics of existing urbanization have been examined, and the present position regarding the main urban centres is described below.

3.34. At the time of the 1962 census, there were 34 towns in Kenya with a population exceeding 2,000. Their combined population was 670,945 or 7.8 per cent of the total population. Of this "urban" population, 446,369 or 66 per cent lived in the two largest towns—Nairobi and Mombasa, which at that time had 266,794 and 179,575 inhabitants respectively. The third largest town, Nakuru, with 38,181 population was only one-seventh the size of Nairobi. By the year 2000, it is possible that Kenya will have a total of over 7½ million people living in centres with more than 2,000 inhabitants and if Nairobi and Mombasa maintain their present proportion of the total urban population, Nairobi will grow to a city of over three million people while Mombasa will have nearly two million inhabitants.

3.35. In 1962, there were only 11 towns with a population of more than 6,000, Nairobi, Mombasa, Nakuru, Kisumu, Eldoret, Thika, Nanyuki, Kitale, Nyeri, Kericho and Gilgil. Leaving aside the first two, which owe their pre-eminence to the fact that the first is the nation's capital city and the second is the nation's only major ocean port, they were all regional centres of large scale cash crop farming. As a result they had higher than average farm incomes which enabled them to provide a wider range of services, in the form of speciality shops, cinemas, restaurants, banks, etc., creating urban employment that was lacking in such centres such as Kisii, Kakamega, Embu and Meru. The latter although functionally. important were situated in areas of small scale farming where, in 1962, the average farmer was just not rich enough to support similar facilities. Thus Nanyuki, in 1962, had a population of 10,448. while Kisii, a more centrally located town in an area of richer farming potential, but in an area of small-scale farming has only 4,532 population. Most of these 11 larger towns already have a certain amount of industrial development, mainly in processing the agricultural products of the region, such as tea packing in Kericho, grain milling in Eldoret and pineapple canning at Thika. Only Nakuru, Nyeri and Kisumu however, are major administrative centres.

3.36. The striking fact about Kisumu (1962 population 23,526 and the only centre among the 11 largest which was in an area of small-scale farming) was its relative smallness, for Kisumu is the "capital" of the whole of Western Kenya with a hinterland of three million people. It would certainly have been much bigger if the purchasing power of the people had been greater.

3.37. The 12th and 13th largest towns were Lamu and Malindi, both with 5,800 inhabitants in 1962. It is interesting that these were both ancient Arab settlements and probably owed their development to the fact that the Arab in East Africa is traditionally an urban dweller. Malindi has a high growth potential as a tourist resort. The 14th largest town, Athi River (population 5.510) is an industrial town, largely dependent on Nairobi.

3.38. In 15th to 24th place, came a series of towns between 3,000 and 5,500 population. Most of them are now District Headquarters: Isiolo, Fort Hall, Thomson's Falls, Embu, Naivasha, Machakos, Kisii, Kakamega, Meru and Londiani. The majority of them are already important centres and will grow larger as rural incomes increase since their main function, in most cases, is that of service centres to the farming community. In addition, Naivasha has a good potential for industrial development while Kakamega and Embu have been promoted to Provincial Headquarters and therefore have particularly good prospects for rapid growth.

3.39. The 25th and 26th largest towns, Molo and Elburgon (1962 population 3,000 and 2,900) are minor service centres for large-scale farming areas. Their importance as central places is less than smaller towns such as Kitui and Kajiado, but the higher incomes of the large-scale farmers enable them to have greater employment opportunities and a high standard of shops and services.

3.40. The remaining towns with more than 2,000 population, Magadi, Kiambu, Voi, Marsabit, Kitui, Eldama Ravine, Kilifi and Kajiado are all administrative centres, except Magadi which is a company town (Magadi Soda Co.).

3.41. Preliminary studies based on present projections of population growth indicate that Kenya may have an urban population of some 5.5 to 7.5 millions by the year 2000. This means that there will be a need for more than ten times the infrastructure as existed in urban centres in the year 1964. These figures have an important bearing on planning strategy and indicate the magnitude of the planning task facing the country over the next two or three decades.

3.42. However, in spite of the anticipated rapid increase in the growth of towns, Kenya will remain essentially an agricultural country over this period. While the urban population is expected to grow ten-fold by the year 2000, the rural population itself is expected to increase from about seven million to 17 million and as described in this Plan, Government policy will be particularly directed to the accelerated development of rural areas. A strategy of physical development will therefore be adopted for the rural areas which makes the optimum use of the very limited funds available.

3.43. An inventory has been completed of all infrastructure throughout the country, including the location of administrative, social and commercial development and this information has been plotted on to large-scale maps for comparison with population distributions, the communication network and other factors. This work has revealed that much of the nation's resources are scattered and located outside growth centres. Also, different services such as health, education and postal services which serve the same district have been located in different centres. This has led to situations where development projects are making little or no contribution to sound long-term growth of viable centres serving the economic and social needs of the surrounding areas. There also exists imbalance in the standard and incidence of certain services as between one district and another.

Physical Planning Strategy

3.44. As a result of this investigation work during the past three years, enough is known of the distribution of existing physical development, in the rural areas to enable the Government to plan more systematically for the future. The evolution of manufacturing industry in Kenya, together with the growth of modern retailing and commerce; the increasing sophistication of government administration and the improvement of educational, health and social facilities will result in a steady expansion of the towns. At the same time the urban expansion will create cash markets for farm products and their growth will provide stimulus to the rural economy.

3.45. Urbanization therefore, wherever it results from expansion of economic opportunities, is welcomed by the Government as a sign of, and a contribution to, the economic development of the nation. The Government recognizes, however, that the concentration of all economic, social and political life in the two main cities carries dangers of an economic and cultural gulf being created between them and the rest of the economy. Although it is realized that there are dangers also in adopting measures to decentralize development too early, the benefits of a more widely spread economic growth pattern must not be lost sight of. It is believed that Kenya is in a more favourable position than many developing countries at this time to achieve success in bringing about limited decentralization of industrial projects. Compared with many other countries, Kenya already has a widely distributed physical infrastructure in medium sized towns which can form a favourable basis for decentralization of future development. At a lower level, there is a large number of smaller towns and villages distributed throughout the country and careful selection from among these will form a network of nodal points for the concentration of services to serve the needs of the rural population.

3.46. However, although the designation of urban and rural growth centres gives an indication of the Government's policy towards decentralization, it must not be assumed that the towns designated necessarily represent the complete list of such growth centres or that the major functions of such towns will not vary. Further research and planning work and the development of the nation's resources will require present decisions to be reviewed regularly and possibly revised at a later date.

Nairobi and Mombasa

3.47. There are many reasons why Nairobi and Mombasa should continue to expand. First, it is considered that these two cities have not yet reached optimum size. Secondly, it often makes economic sense for a new industry, proposing to supply goods mainly for the local market, to be located close to the principal concentration of purchasing power and Nairobi and Mombasa tend to be the logical choice for such an industry, particularly as Nairobi is located close to the centre of gravity of the total population. Thirdly, Nairobi and Mombasa are well supplied with service industries such as machinery repair, advertising, printing and packaging and so on, easy availability to which is often necessary for the smooth operation of a large business. Fourthly, Nairobi is already endowed with very good transportation routes to all parts of East Africa, while Mombasa is the major port and has natural advantages for industries, such as petroleum refining, which require large quantities of raw materials arriving by sea. Fifthly, Nairobi and Mombasa are already well supplied with the social and cultural amenities that are necessary to attract well-qualified executive and managerial staff. Kenya is particularly fortunate among African countries in having two cities with such a high standard of infrastructural development and so many natural advantages which attract companies of international repute to invest their capital in them. It is not therefore the policy of government to impose mandatory and artifical restrictions on private commercial and industrial development in Nairobi and Mombasa, for such a policy would discourage the economic development of the country as a whole. Nevertheless positive steps will be taken to decentralize future urban growth to the designated major growth centres as set out in the following paragraph.

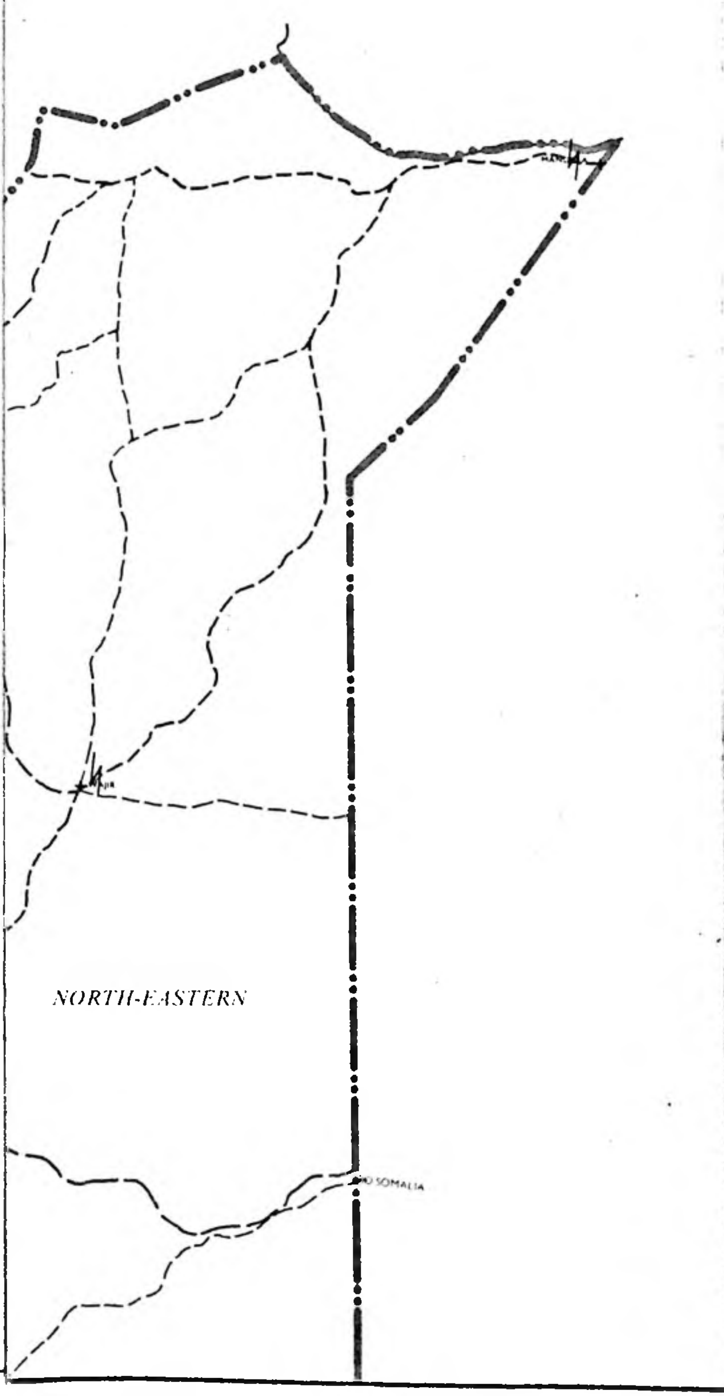
Designated Major Growth Centres

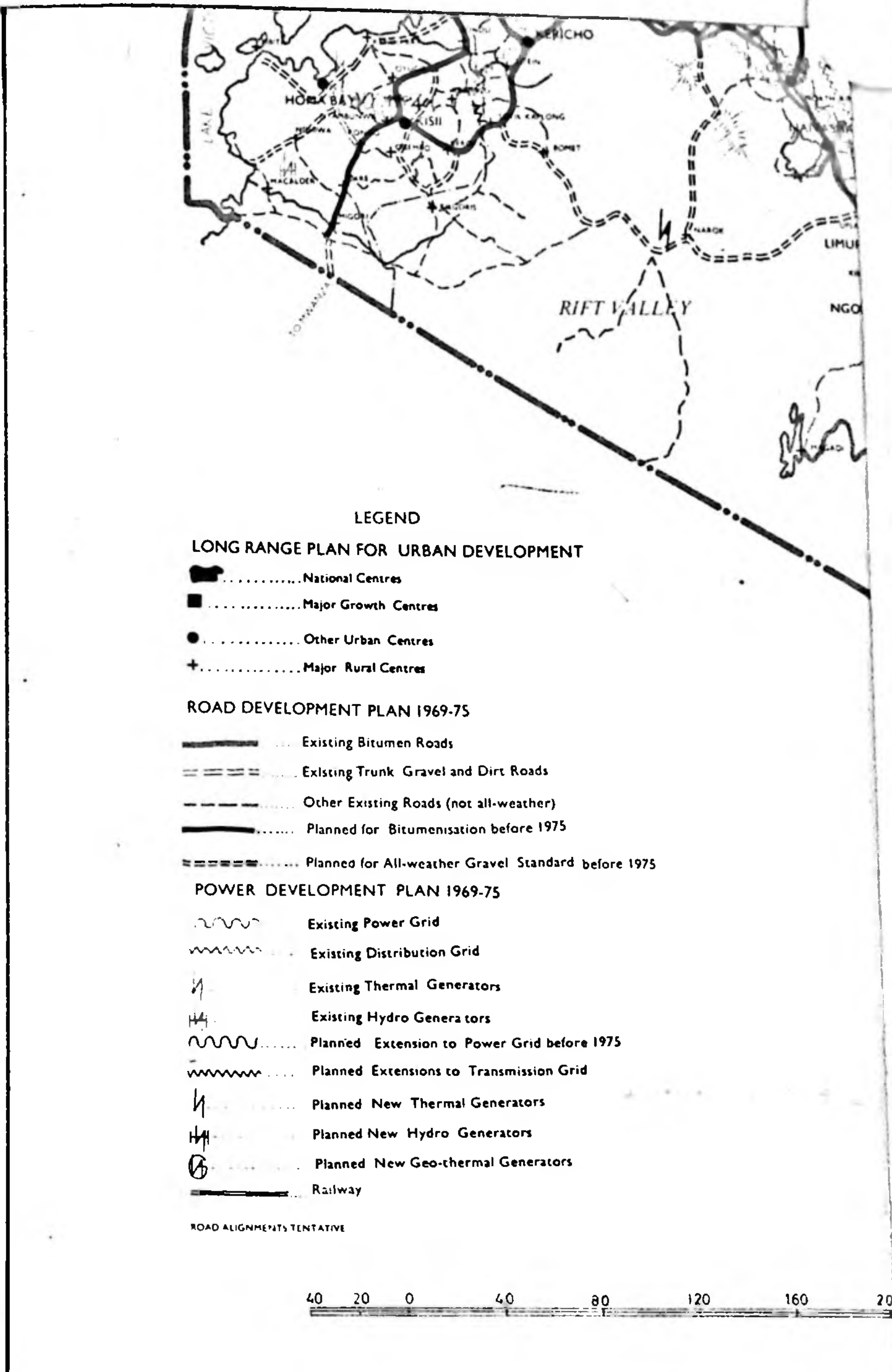
3.48. In addition to Nairobi and Mombasa, a limited number of major towns will be developed. Those designated to date are the main administrative and industrial towns which are already important administrative or industrial centres. They already have substantial service infrastructure and are strategically placed to form the major administrative, commercial and industrial centres of the country in the future. The designated towns are Kisumu in Nyanza, Kakamega in Western, Nakuru and Eldoret in Rift Valley, Nyeri and Thika in Central, and Embu in Eastern Province. With the exception of Eldoret and Thika, these towns already contain the administrative headquarters for their province.

3.49. Kisumu already serves as a commercial capital for a considerably greater area than Nyanza Province, involving a regional population of over 3,000,000 people and could develop, within this century, to a large city possibly of over half a million people. It will assume the status and function of a national city for the whole of Western Kenya as well as a provincial city for the Nyanza Province.

3.50. Eldoret, Nakuru and Thika, together with Kisumu, already have a certain amount of industrial development and well-developed infrastructure, including main rail and road communications, grid electricity, water supply and sewage disposal systems. Each will be planned for a population exceeding 200,000 by the year 2000.

3.51. Kakamega, Nyeri and Embu, although at present small towns, are located in fertile argricultural areas and in areas of dense population. The standard of their existing infrastructure is below that of other major centres


NORTH-EASTERN
TO SOMALIA


KERICHO
HOMA BAY
KISII
LAKE
MACALDER
RIFT VALLEY
LIMU
NGO
LEGEND
LONG RANGE PLAN FOR URBAN DEVELOPMENT
National Centres
Major Growth Centres
Other Urban Centres
Major Rural Centres
ROAD DEVELOPMENT PLAN 1969-75
Existing Bitumen Roads
Existing Trunk Gravel and Dirt Roads
Other Existing Roads (not all-weather)
Planned for Bitumenisation before 1975
Planned for All-weather Gravel Standard before 1975
POWER DEVELOPMENT PLAN 1969-75
Existing Power Grid
Existing Distribution Grid
Existing Thermal Generators
Existing Hydro Generators
Planned Extension to Power Grid before 1975
Planned Extensions to Transmission Grid
Planned New Thermal Generators
Planned New Hydro Generators
Planned New Geo-thermal Generators
Railway
ROAD ALIGNMENTS TENTATIVE
40 20 0 40 80 120 160 20

and none is served by railway. They are however served by main trunk roads and connected to the national electricity grid. Their populations will probably exceed 100,000 by the year 2000.

3.52. It is Government policy that these national/provincial centres will have priority for the development of services and other major public works, including the further development of provincial offices and educational, health and recreational establishments, so that they develop as effective service and industrial towns to serve their region. Their economic base will be rooted in government services and regional commerce, although Kisumu, Eldoret Nakuru and Thika will, wherever feasible, be promoted as manufacturing centres.

3.53. Below the level of the principal national town, there will be network of smaller towns and villages having as their main functions the provisions of administrative, social and trading services for the people in the rural areas. The level of services provided by these centres and their potential for growth, will vary in accordance with particular circumstances and needs. They will range from medium sized towns containing district administrative headquarters and serving as the principal centres of their districts or regions down to small villages of local trading and social activity.

3.54. Although a great number of centres performing these needs are already in existence, a plan has been drawn up for a more logical and viable network of centres at different levels, with the assistance of the Provincial and District Development Committees. The appendix to this chapter sets out the complete list of centres designated to date in the following four different categories of centres:—

Urban Centres

Medium size towns have been designated to serve as the main commercial centres for an entire district, generally they will also contain the district administrative headquaters. Partly because of their administrative importance and partly because of their central position as places of trade and commerce, they are likely to have a population of more than 10,000 before the end of the century. Some of these urban centres, because they enjoy rail communication and other advantages, have potential for industrial growth potential and may reach a population of 50,000. Examples are Kitale, Kericho, Thomson's Falls, Nanyuki, Naivasha, Sagana, Fort Hall, Kisii and Bungoma. Malindi, because of its potential for tourist development, will be of particular importance and will probably have a population in excess of 50,000 by the end of the century. Some centres which are not even district headquarters such as Athi River, Limuru, Karatina, Broderick Falls, Kangundo and Mumias, are also important centres which because of their particular circumstances may also reach a population of 10,000 by the year 2000. It will be noted that the national/provincial centres listed in the previous section are also included under the urban centre schedule, since they perform the functions, of an urban centre as well as the higher level functions. Garissa as the North-Eastern Province Headquarters is also included.

Rural Centres

These centres have been designated for development to serve a rural population of at least 40,000 people with administrative, social and commercial services. Over a period of two or three decades, with the progressive economic development of the rural areas, they will become small towns with populations of 2,000 to 5,000. The rural centres will be particularly important in improving the standard of amenity in the rural areas. It is proposed that the infrastructural development at the level of divisional administrative headquarters such as local hospital, secondary school (at least to Form IV level), police stations, post office and bank services should be in these towns rather than dispersed among a number of non-scheduled centres. With this concentration, their servicing with public water supply, electricity and all-weather roads will tend to become an economic possibility. It is expected that rural centres will be especially suited for the development of rural cottage industries.

Market Centres

These centres have been designated for development of a lower level of services for a rural population of at least 15,000. These places will not usually achieve the size of towns, their anticipated population being less than 1,000. It is intended that over a period of time health centres, secondary schools (Form II level) and Chief's Headquarters be grouped in these market centres and that it will become possible to supply them with a post office and at least visiting bank facilities and public water supply. They will have plots designated for commercial uses as well as a traditional produce market.

Local Centres

These centres have been designated to serve a rural population of at least 5,000. While their resident population will be small, perhaps 200 to 500 and they will have no administrative function, local centres will act as important trading and social centres especially in the sparsely populated areas of the country. Even at this comparatively low level of urban settlement, the more development of a trading and social nature than can be concentrated in them, rather than being scattered over wide rural areas, the more satisfactorily they can service the rural population.

3.55. It will be Government policy to give priority in the allocation of government financial assistance to projects located in there designated centres in connexion with new infrastructure, such as *Harambee* schools, health facilities, water supplies and roads. The Town Planning Department will prepare detailed layout plans for these centres so that commercial and other plots are identified to facilitate their development. The success of this planning strategy is almost entirely dependent on concentrating even minor development projects into the scheduled centres. Proposals involving development of service facilities within non-designated centres will therefore be discouraged.

Preparation of Town Plans

3.56. Now that a full range of towns and villages have been identified and some designated as growth centres, the Town Planning Department will draw up a long-term programme of work for the production of detailed physical development plans for each growth centre. A number of towns have already had plans prepared by the Department and the preparation of plans for other towns and centres and the periodic review of all of them will be a continuing task.

3.57. Invariably two major factors emerge in the planning of towns. First, the pressure for development in advance of a Plan has led to unsatisfactory land use such as uncontrolled and unserviced low standard housing erected on the land immediately surrounding such towns as Kisumu, Thika, Eldoret and Meru. The solution to this problem lies only partly in the preparation of a sound plan for the town, and authorities concerned will have to take more positive action to prevent this undesirable type of development. Secondly, the extreme shortage of land for the uses required for expanding towns, particularly for industry and housing is a major constraint, and it is proposed to set up a special committee under the chairmanship of the Commissioner of Lands to examine this problem and make recommendations for the provision and reservation of adequate land to solve this problem.

3.58. The larger towns, numbering over 40, will need studies in depth in order to project their demographic composition, the basis for economic growth, and the influence of the region on the growth of these towns. These factors affect the future physical requirements of the town. Engineering studies to resolve problems of water supply, sewage disposal and traffic flow will also be needed. Nairobi has its own planning department for this work, and efforts will be made to encourage the formation of planning units in other large towns, as circumstances permit.

3.59. The main tasks of the Town Planning Department in planning the towns will be—

(i) to regulate the relationship between industrial, commercial, residential, recreational and public land use areas so as to minimize the cost of municipal engineering;

(ii) to facilitate the movement of people from home to work, schools and shops;

(iii) to preserve areas of open space for the recreational needs of an urban population;

(iv) to reserve areas of land for commercial facilities;

(v) to prevent the wasteful encroachment on agricultural land and the expensive extensions to urban services caused by unplanned urban sprawl.

The Implementation of the Physical Plan

3.60. The decisions of the Government on physical planning development as set out in this chapter and the revised plans and statements which will be published from time to time will not in themselves ensure a national development of urban and rural areas. The value of the planning work lies in the fact that there exists the means for all agencies engaged in physical development to know where their project should be sited; firstly, so that they will be in a centre which is best suited to serve the region and to receive future governmental services infrastructure; and secondly, so that integrated development may make the greatest possible contribution to the nation's economy by accelerating the growth of centres throughout the country.

3.61. It is proposed to review physical planning legislation to ensure that adequate powers exist to implement the plans. In order to make certain that development is sited in a properly planned and co-ordinated manner and that adequate land for projects is available without delay, the Government will now require that Ministries, Local Authorities and other development agencies to consult the Town Planning Department at the initial stage in the consideration of their schemes.

3.62. The Town Planning Department will decentralize its staff to form Provincial Town Planning offices as soon as the main central planning work has reached a satisfactory stage, and increased staff and other resources can be made available. This will enable the department to play a more positive role in planning implementation including detailed advice at the local level with a view to securing the necessary control of development and an improvement in the standard and proper siting of local projects.

CENTRAL PROVINCE

District	Urban Centres	Rural Centres	Market Centres	Local Centres	
Murang'a	Fort Hall	Maragua Kandara (Gakarara) Kangema (Gakira) Makuyu Kigumo Kahuro (Muriranjes) Kiriaini Kirwara (Gatanga) Saba Saba	Githumu Kamahuha Kanyenyaini Mugumoini Ndunyu Chege Gaichanjiru (Magunduini) Ichagaki	Karuri Njumbi Muthithi Kabati Kahuti Mitubiri Marira Gatura Kangare Kiria Kinyange Gitugi	Kareti Kihumbuini Kinyona Kirere Githunguri Kaharati Gathera Gacharage Giitwa Kaweru
Kiambu	Thika Kiambu Limuru Ruiru	Kikuyu Githunguri Gatundu Kalimoni Uplands Gatukuyu (Mangu) Marige	Tigoni Kijabe Kirenga (Lari) Kilimambogo Wangige (Muthumu) Karuri	Kagwe Uthiru Ngewa (Nyaga) Muguga Biberioni Kiganjo Thogoto Lusigeti Ngenda Juja	Gikambura Miguta Matathia Kamwangi Ngorongo Riara Ridge Ndeiya Karatu Kanyoni Kerwa
Kirinyaga	Sagana Kerugoya	Kianyaga Baricho Wanguru Kutus	Kimbimbi Kiamutugu Ithareini Kagio Kagumo Mukarara Makutanu	Kibirigwi Karumandi Mururi Kiamwenja Kiamuthambi	Kianjege Kianguenyi Mucagara Riakiani

CENTRAL PROVINCE—(*Contd.*)

District	Urban Centres	Rural Centres	Market Centres	Local Centres	
Nyeri	Karatina Nyeri	Kiganjo (Kericho) Mukurweini Othaya Naro Moru Mweiga	Wamagana (Giakanja) Mihuti Gakindu (Indiaini) Tumu Tumu Ruthagati Gatitu Giakaibii	Endarasha Kiawarigi Kamakwa Ithithe Karema Kibiruini Gathinga Gichichi Gaikuyu Kagere Ndonyu Market Gatarakwa Hombe	Gikondi Gachatha Kaheti Ndathi Ihururu Kinunga Gatung'ang'a Kalureri Ichamara Mweiga South Laikipia Kinahori Muyogo
Nyandarua	Ol Kalou Thomson's Falls	Njabini (S. Kinangop) N. Kinangop Ol Joro Orok Kipipiri (Miharati)	Wanjohi Ndunyu Njeru Pondo	Ndaragwa Rurii Kenton Oraimutia Gathanji Munyaka Ngano Kaheho Kambaa Ngorika Kangui	Kiriko Mukeo Githioro Weru Sabugo Nyairoko Heni Koinange Kamathi Magumu

COAST PROVINCE

District	Urban Centres	Rural Centres	Market Centres	Local Centres	
Mombasa	Mombasa		Shanzu	Utange Bamburi	

COAST PROVINCE—(*Contd.*)

District	Urban Centres	Rural Centres	Market Centres	Local Centres	
Kilifi	Malindi	Kilifi Kaloleni Mariakani Bamba Kakoneni	Gede Ganze Vipingo Gongoni	Majengo Tsagwa Batani Rabai Mazeras Gotani Tsangatsini Jaribuni Kibaoni Takaungu Sokoke	Chumani Watamu Vitengeni Jilore Kakuyuni Maziwani Marikebuni Mambrui Marara Garashi Fundisha Kibaoni
Kwale		Kwale Msambweni Kinango	Tiwi Diani Ramisi Ndavaya Lunga Lunga Vanga Samburu	Ngombeni Matuga Gazi Shimba Hills Kikoneni Shimoni Maji ya Chumvi Mackinnon Road Tsunza	
Taita	Voi	Wundanyi Taveta	Mwatate Bura Mgange Msau	Manyani Ndome Werugha Figinyi Mazera	
Tana River		Galole	Kipini Garsen	Ngao Mororo	
Lamu		Lamu	Witu Faza	Mkunumbi Kiunga	

EASTERN PROVINCE

District	Urban Centres	Rural Centres	Market Centres	Local Centres	
Embu	Embu	Runyenjes Siakago Ishiara	Manyatta Kiritiri Kibugu Kevote Kianiokoma Konyuambora Rwaika	Kathunguri Karingari Kangethia Ngendure Gachoka Mvuvori Gethemu	Riakanau Kerie Kiambere Masai Cross Ugweri Karuruumo Makutano
Meru	Meru	Chuka Maua Egoji Nkubu Chogoria (Kabece) Muthara (Tigania) Laro Chiokarige	Kanjai Karaa Kangeta Kirua Mitunguu Timau Mikundiri Gatunga	Kibirichia Miathene Marima (Muthambe) Kibugua (Thoita) Githongo (Katheri) Kanyakine Thimangiri (Thura) Mwiria (Kariakomo)	Tunyai Mitheru Ksongo Kanjuki Kalangachini Giaki Mariani
Machakos	Machakos Kangundo-Tala	Athi River Nunguni (Kilome) Mbooni (Kikima) Makueni—Boma Masii Sultan Hamud Kibwezi Kalawa Matuu	Siadhani Kilala (Kaumoni) Kabaa (Mbiuni) Makindu Uaani (Tawa) Yatta (Kithimani) Kikoko Wamunyu Mitaboni Emali Mtito Andei Masinga Mumandu Matiliku Katulani	Mbumbuni Mititumu Nziu Kusyomuomo Okia Kikumini Kivaani Kakuyuni Kianzabe	Kasikeu Muthetheni Ngelani Upete Kinyui Kathonzoeni Gatangi Ekarakara

EASTERN PROVINCE—(*Contd.*)

District	Urban Centres	Rural Centres	Market Centres		Local Centres	
KITUI	Kitui	Mutomo Mwingi Ndooa (Mutito) Katse Kyuso (Mivukoni)	Migwani Tulia Ikutha Matinyani Kisasi (Mulango) Tseikuru Zombe Ikanga Muu	Miu Mutha Tharaka Kangonde Mitamisi Kyosoini Kamugongo Kanziku Voo	Mutane Chuluni Miambani Usuaeni Kimangao Katulani Nguni Enziu Tiva Maliti Kinakoni	Mbitine Kavisuni Magomeni Nzeluni Siyomunyu Inyuu Iyumbisi Karitini Kyatune Siamatini Endau
ISIOLO		Isiolo	Garbatula Merti Madogashi		Sericho Komu Kinna	Kulamawe Gotu Melka Lorni
MARSABIT		Marsabit	Moyale North Horr		Laisamis Sololo Loglog Loyangalani Ileret	

NORTH-EASTERN PROVINCE

District	Urban Centres	Rural Centres	Market Centres		Local Centres	
WAJIR		Wajir-Giriftu	Buna		Habaswein Gurar	
GARISSA		Garissa	Mado Gashi Mbalambala Bura Walu			
MANDERA		Mandera	Rhamu El Wak		Takaba	

NYANZA PROVINCE

District	Urban Centres	Rural Centres	Market Centres	Local Centres
Kisumu	Kisumu	Maseno Ahero Miwani Muhoroni Chemelil Sondu	Kibigori Kiboswa (Nyahera) Kisiani Paponditi Rabuor Kombewa	Nyakach (Nyamarimba) Koru Otonglo Songhor Awasi Kusa Katitu Tamu Ombeya Pawakuche Nyalanda Anyuongi Awach Nyang'ande God-Abuoro Chiga
Siaya		Yala Siaya Ukwala Bondo (Barkowino) Asembo (Raliew)	Nyamgweso Ngiya Rang'ala Akala Ugunja (Ambira) Usenge Sega Madiany Aram Sigomere	Ndero Lwak Ndori Boro Nyalima (Saradidi) Nzoia Wagusu Uranga Sidindi Bondo Anyuongi Rera Kambare Bar-Ober Awai Sifuyu Nyang'oma Luanda (Kotieno) Luambwa Ramula
Kisii	Kisii	Keroko Manga Nyambunwa Ogembo Kebirigo	Nyamache Nyamira Kenyenya (Majoge) Keumbu Nyamarambe Nyamaiya (Rangenyo) Riosiri Gesima Ikonge Nyangusu Tinga Nyansiongo	Mogunga Gesusu Igare Nyanturago Magombo Magwagwa Kiamokama Marani Ramasha Magenche Etago Masimba Manianku Mosocho Riochanda Birongo Obwari Tombe Riana Ikoba (Tabaka) Mokomoni Manga (Borabu) Itumbe Motonto Mogumo Kegogi Maroo

NYANZA PROVINCE—(*Contd.*)

DISTRICT	URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
S. NYANZA	Homa Bay	Kendu Bay (Gendia) Migori Rongo (Kamagambo) Oyugis Ndihwa Macalder Awendo Sare Mbita	Rangwe (Asumbi) Ranen Kadongo Karungu Rodi Kopany Rapogi Homa Lime Isebania Taraganya Muhoro Miriu	Kehancha Mawego Suba Kariye Doho Kosele Ratanga Mariwa Uriri Ndiru Ikerege Omoya Magunga Dede Luanda (Mbiti Loc.) Ntimaru Ober Sindo Wagwe Kagaga Sena Aoro Chuodho Kadel Mukoro Ogongo

RIFT VALLEY PROVINCE

DISTRICT	URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
UASIN GISHU	Eldoret	Turbo Kipkabus	Kaptagat Soi-Navillus Moiben Timboroa	Hoey's Bridge Plateau Burnt Forest Nabkoi Ainabkoi West Kipkurere Kapseret Sengalo Serengoni Penon Sabor (Forest) Siwa Leseru Elgeyo Border Ainabkoi East Kiboloss Osorongai Kaptabei
KERICHO	Kericho	Sotik-Kaplong Londiani Litein Lumbwa Bomet	Kapkatet Tenwek-Silibwet Sosiot (Cheptenye) Longisa Roret Kipsonoi	Sigor Ndanai Kapsuser Kipsitet Ainabkoi Fort Ternan Kimulot (Chebanga) Gorgor Ainamoi (Kipsigirio) Merigi Chepsir Chebunyo Cheborge Chemosit Kebenet Kiptere Kabianga Kapsorok Kapkoros Kapsoit Kedowa Kaitui Kapkugerwet (Brooke) Kaboson Mogogosick Siongiroi

RIFT VALLEY PROVINCE—(*Contd.*)

District	Urban Centres	Rural Centres	Market Centres	Local Centres
Nandi	Kapsabet	Nandi Hills	Kaptumo Kabiyet Lessos	Miti ya Hunter Cheptarit Serem Kilibwoni Kapkangani (Chepsonoi) Chepterwai Kiboswa Kabujoi Maraba (Kibwareng) Mutwot Kosirai Kaibui Kapsisiwa Chemase Mugondoi Chepkunyuk Kabiemit Kipsigak Baraton Ndalat Lolkeringet Ndurio Kipyesi (Sorora) Kapkerer Lelmokowo Sangalo Chepkumia Kemeloi Chemnoet Kabisaga
Nakuru	Nakuru Naivasha Gilgil	Molo Njoro	Elburgon Kijabe Rongai Mau Narok Solai Dundori Subukia	Bahati Olengurone Mau Summit Mount Margaret Longonot Turi Elementaita Nariashoni (Kiptunga) Mbaruk South Lake Eburru
Trans Nzoia	Kitale		Endebess Kiminini Saboti Kapsara	Kiboswa Nzoia Sekhendu Cherengani Kwanza Chopchoina Sirende Kimothon Kisawai Kachebora (Naigam) Teldet Kapretwa Suwerwa Kiptogot Kipsoen

RIFT VALLEY PROVINCE—(*Contd.*)

District	Urban Centres	Rural Centres	Market Centres	Local Centres
Baringo	Kabarnet	Eldama Ravine Marigat	Mogotio Kampi ya Samaki Nginyang Tenges Emening Kabartonjo Kabinoi	Maji Mazuri Bartolimo Tangulbei Timboiywo Seretunin Kiptagich Poi Barwesa Triminion Makutano Sabatia Torongo Kapluk Kituro Loiminang Kapeddo Loboi Loruk Radad Olkokwe Talai Mogorwo Sirwa Kinyach Esageri
Laikipia	Nanyuki		Rumuruti Doldol	North Marmanet Ngarua Lumaria Mutara Nyahururu/Shamane Tura Marmanet Umande Sosian Ol Arabel
Elgeyo Marakwet		Iten Chepkorio Chebiemit	Tambach Kapsowar Tot Kaptarakwa	Sergoit Karima (Bugar) Biretwo Nyaru Kapchorwa Kipsaos Koitila Kessup Kapteren Chesoi Chesegon Kapcherop Chesongoch Cheptongei
West Pokot		Kapenguria-Makutano	Ortum (Sebit)	Sigor Keringet Chepararia Kanyarkwat Kongelai Morkwijit Lomut Ptoyo Serewo Orwa Chepkobech Kachemogen Kapgeis Nasolot Kaibibich Amaler (Kalossia)

RIFT VALLEY PROVINCE—(*Contd.*)

District	Urban Centres	Rural Centres	Market Centres	Local Centres
KAJIADO	Ngong	Kajiado Magadi Soda Loitokitok		Dissil Mashuuru Kiseriani Bulbul Lassit Lengisim Elangata/Wuaso Ol Tukai Masimba Mbirikani Ongata/Rongai Selengei Olenaru Uawaso Kedong Rombo Metu Kemana Oloyangalani Ngorigaishi Torosei Ol Topesi Kisanis Kima Isenya Shambole
NAROK		Narok Kilgoris	Nairagiengare	Lolgorien Olokurto Ololunga Siyiapei Narosura Emarti Entasikira Enabelibel Mulot Olchoro Olpusimoro Aitong Inaikarra
SAMBURU		Maralal	Wamba Baragoi	Archer's Post Sukuta Marmar Kisima South Horr Lodogejek Opiroi Serolevi Marti Ludonyokwe Kirimun Barsaloi Losuk
TURKANA		LODWAR Lokitaung Kalokol	Lokori Kaputir Kakuma Lorugumo	Lokichar Lokwakangole

WESTERN PROVINCE

District	Urban Centres	Rural Centres	Market Centres	Local Centres	
Kakamega	Kakamega Mumias	Luanda (Maseno) Butere Malava Khayega (Mukumu) Khwisero (Mwihila) Mbale (Maragoli) Kaimosi (Shamakhokho) Navakhole Chebuyusi	Vihiga (Majengo) Soy Senende (Hamisi) Kima Sabatia Matete Shianda Chavakali Esibuye (Ebusiratsi) Shinyalu Bukura (Matioli) Lubao Kilingili (Viyalo) Lumakanda	Luandeti (Maturu) Litambitsa (Iguhu) Lugari Magada (Madira) (Muhanda) Shiatsala Ingotse Samitsi Malaha Butali (Chebwai) Kipkaren Kakunga Gambogi (Tigoi) Serem (Kapsotik) Eregi	Ekambuli Namasoli Kisiru Matungu Kambiri (Shianderema) Lukume Mautuma Mbaraka Likhuyani Mabusi
Bungoma	Bungoma	Kimilili Broderick Falls Malakisi Chwele Tongareni	Sirisia Lugulu Misikhu Mayanja (Kibabi) Myanga Makatero (Sudi) Bokoli (Khachonge) Kamakoiwa (Chesamisi) Cheptai (Chesakaki) Kabula Natiri Corner Ndalu (Richmonds) Kapsakwany	Sikusi Namorio Chemoge Sitikho Kaptama Ndivisi Kuywa (Teremi) Sangalo (Lwanda) Bumala (Mateka) Kaboiywa	Nzoia Kimaeti Chebukwa Chebkube Kapkateny Nalondo Mukuyuni Mbakalo Sikhendu

WESTERN PROVINCE—(*Contd.*)

DISTRICT	URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES		
BUSIA	Busia	Mangina (Funyula) Nambare (Bukhayo) Butula (Nyapera) Hakati* Kacholia*	Malaba Port Victoria Amukura Murumba (Khunyangu) Buyofu Bumala (Burinda) Buhuyi Matayos Sio Port	Alupe Chakole Mundika Likoli Mungatsi Lugulu Kwangamor Chamisiri Jairos Kolait	Tingolo Mabunge Luanda Bukiri Igara Lugale Mabinju Bukoma Namurudu	Siribo Bukhalalire Kadibwora Machaku

*Subject to future development.

CHAPTER 4—EMPLOYMENT, MANPOWER AND INCOMES

Employment

This Development Plan was formulated without the benefit of data from the 1969 *Census of Population* which were still being processed at the time the Plan document went to press. As a consequence, the only population data available for planning purposes were derived from the 1962 *Census of Population.* An analysis of these data suggests that Kenya's population has been growing at a rate in excess of 3 per cent per year, with a birth rate of approximately 50 per thousand and a death rate of approximately 19 per thousand. The high rate of population growth has resulted in a population age distribution characterized by a relatively high proportion of children under the age of 15: more than half the country's total population falls into this group. The total population of the country in 1969 was approximately 10.7 million, and at a 3.1 per cent rate of growth, the total population in 1974 will be 12.4 million.

4.2. It is not expected that the data from the 1969 *Census of Population* will alter the general picture described above although some further secular changes may be recorded in the birth and death rates. There will be no significant change in the high proportion of dependents relative to producers in the population.

4.3. These facts have been weighed carefully by the Government in drawing up this Plan. They carry significant implications for almost every programme outlined for the period 1970-74, particularly, of course, those for agriculture, education, health and water. They also carry very significant implications for employment policy, for although the ratio of the working population to the total is relatively low compared with some other countries, the rate of growth of the adult population is still in excess of 3 per cent per annum and whatever changes are recorded in the birth rate in the years ahead, it cannot alter the fact that the children already born will be seeking employment opportunities over the next 15 years.

4.4. As in every other developing country, unemployment and, more particularly, under-employment are Kenya's most difficult and persistent problems. The fact has to be faced that there is no magical solution to these problems in the short term, but Government is determined that steady progress will be made to bring them under control. Experience in Kenya, as well as in other developing countries, has shown that these problems are extremely complex and will require Government action in a number of different areas simultaneously if they are to be alleviated in the short run and solved completely in the long run.

4.5. In part, the complexity of the problem stems from the fact that there are several kinds of unemployment. First, there are the urban unemployed —a group which consists, by and large, of those who have migrated to the towns and have been unsuccessful in finding wage employment. Secondly, there are the rural underemployed—those who are engaged, usually in agr culture, but who do not possess enough land, skills or other resources whic would provide them with a full-time, productive occupation. Finally, ther are the educated unemployed or underemployed—those who are in posses sion of a primary or secondary education and who have been unable to fin full-time jobs.

4.6. The underlying causes of unemployment are also complex. Ironic ally, the problem, in large part, arises because of successful development an modernization. For example, Kenya's population and labour force ar growing at a rate in excess of 3 per cent per year. The underlying cause of this are continuing high birth rates accompanied by a sharp decline in mortality rates—the result of successful medical programmes and a better feeding of the population. More and more Kenyans are simply leading longer and healthier lives.

4.7. Another underlying cause of unemployment is the successful modern- ization of important sectors of the economy. The introduction of modern techniques are frequently essential for improving worker productivity and worker incomes. However, the increases in productivity mean that fewer people are required to produce a given output. A frequent cause of un- employment in many developing countries is wage and salary levels in both the public and private sector significantly higher than average incomes in the country as a whole. With the country's relatively high wage and salary structure, employers, including Government, simply cannot afford large payrolls and have tended to utilize techniques which conserve in the use of labour.

4.8. The causes of specific kinds of unemployment or underemployment are linked to such factors as inadequate training and a consequent lack of skills and the shortage of land and other resources. With respect to land shortages, the problem is aggravated by social barriers to the migration of workers from a rural area where land is scarce to another rural area where land is relatively abundant. The existence of large numbers of educated unemployed is attributable to two factors: first, there has been an expan- sion in school enrolments which far outstrips the ability of the economy to provide wage jobs; secondly, the curriculum in the schools has not been entirely appropriate in terms of preparing students for the employment con- ditions which they will encounter upon leaving school. Finally, an important factor governing the numbers of the urban unemployed is the rural-urban wage differential which is so large that it entices many rural workers to assume enormous social and economic risks by migrating to towns where the probability of finding employment is low.

4.9. All of these factors governing the rate of unemployment are inextric- ably interrelated and require that Government take action in a wide variety of different areas. Some of these actions will only bear fruit in the long-run while others will have a short-term impact. In general, it may be stated that there is no prospect that everyone can be provided with a wage job during the next five years. Indeed, the major source of employment during the next decade or so will be self-employment in various economic activities.

4.10. Unemployment in Kenya is not a consequence of an inadequate rate of growth in the economy. Largely due to the efforts of the Government, the country has experienced a relatively long period of sustained economic growth with the consequence that the people enjoy today a level of living very substantially above the level prevailing at the time of Independence. Without this rate of growth, unemployment would have been a much more serious problem. The simple truth is that there is no feasible rate of economic expansion which would have produced full employment during the short period the country has been independent.

4.11. In the past, Government has taken a number of direct actions to reduce unemployment and to help those who suffer as a consequence of conditions over which they have no control. These actions have included the establishment of the National Youth Service; The Tripartite Agreement between employers, labour and Government; the construction of roads utilizing more labour intensive (employment creating) techniques; and the establishment of unemployment relief programmes. However, programmes of these types do not alter the underlying conditions responsible for unemployment in the first instance. What is needed is not relief of unemployment but creation of employment.

4.12. One indicator of the scale of the unemployment problem is the rate of growth in the numbers of young people in possession of primary and secondary education who will be entering the labour force during the Plan period. The number of primary school leavers entering the labour force will be more than one-half million, almost all of whom must be absorbed into agricultural and other types of rural employment, because there will not be a sufficient number of urban wage jobs created to absorb them. During the same period of time, over 138,000 secondary school leavers, approximately 70,000 of whom will be in possession of a Form IV education, will enter the labour force. Many of these secondary school leavers will have difficulty finding urban wage employment and, it is estimated that by 1974, less than one-half will be able to do so.

4.13. The only group of young people who will have little difficulty finding wage employment will be those in possession of technical and vocational skills and those in possession of higher education. But even here, students in possession of University Arts degrees who do not possess marketable skills or specialized knowledge will, by the end of the Plan period, begin to experience difficulty finding suitable employment.

4.14. These developments have a number of important implications. First, the overall quality as well as the quantity of the labour force has been and will continue to increase significantly with the consequence that there will be an extremely keen competition for jobs. The possession of a Standard VII, Form II or Form IV education will not, in itself, provide an automatic assurance of wage employment as has been the case in the past. Wage employment will be available only to those who are in possession of needed skills or those who have other qualities which will render them attractive to employers.

Government's Employment Policies

4.15. Government's employment policies and programmes are designed to have an immediate impact on the unemployment problem during the life of the Plan. But the full solution, in terms of the complete elimination of unproductive underemployment, can only be found in a long term sustained high rate of economic growth, generating employment opportunities at a significantly higher rate than the annual rate of increase of the working population. Government's economic policies are geared to obtaining such a high rate of economic growth and it will be seen from Chapter 5 that, even within the life of this Plan, it is proposed to raise the rate of growth from 6.3 per cent achieved in the years 1964-68 to 6.7 per cent over the period 1967-74. In addition, an Incomes Policy is outlined in the last part of this chapter which is designed to ensure that this higher rate of economic growth leads to a higher rate of growth in employment opportunities. Government also expects that rising standards of living and the programmes described in the health chapter will be reflected in some decline in the rate of population increase on the longer term.

4.16. Government is not, however, only concerned with longer term solutions—an immediate impact on the worst features of the unemployment problem is of major concern. For this reason, the Plan was drawn up not only as an economic development plan concerned with overall growth but also as an employment programme in itself. Thus, every sector chapter of this document should be seen as an employment programme designed by Government to create the maximum number of jobs given the resources available. Programmes of land settlement—not least the "squatter settlement programme" designed to settle 33,000 families—will have an immediate impact, as will programmes of land adjudication, irrigation, cash crop and livestock production. Seasonal shortages of labour already occur in areas of relatively intensive agricultural development.

4.17. The primary strategy of the rural development programme described in Chapter 6 is the creation of job opportunities in the rural areas, not only in agriculture but in every other major economic activity as well. It is hoped that up to 10,000 job opportunities will be created in rural small scale industry alone. It is, however, important to appreciate that these job opportunities will not all be opportunities for wage jobs; for Government proposes to take special measures to create opportunities for self-employment. Private initiative directed toward self-employment will, in the long run, assume greater and greater importance in the economy and will produce that group of self-reliant persons which is so necessary for sustained economic expansion. Government will encourage and support those important private efforts through the provision of credit, training, licensing and expert technical and managerial advice.

4.18. Even the education programme must be seen in terms of its effect on employment, since Government proposes to expand vocational training at all levels, while the curriculum in schools is being altered to provide a more practical education and one which prepares children to cope more readily with problems of employment in rural and technical activities. Youth programmes, including an expansion of the National Youth Service, will be designed to tackle the particular problems of youth unemployment.

4.19. The expenditure programmes of Government outlined in this Plan will lead to substantial increases in public sector employment directly, and indirectly in such private sector industries as building and construction as a result of the Government buildings and roads programme. Where necessary, Government will give priority to the implementation of Plan projects which have a high employment content. The achievement of the employment targets set out below will be dependent on the implementation of the whole Plan at the rate proposed over the years 1970-74.

The Growth of Employment Opportunities

4.20. On the basis of population projections, the working labour force will grow by approximately 850,000 persons or 3.1 per cent per annum over the period 1968-74. The aim of the Plan is to expand the economy at a sufficient rate to provide an improving means of livelihood for all of these additional people and to create job opportunities for those that are now without any means of livelihood at all. This does not mean that Government expects to be able to create wage-paid job opportunities for all these additions to the labour force, for there is no realistic rate of economic growth that will achieve this during the next few years. Nevertheless, the Government will aim to increase the number of wage paid jobs by approximately 375,000 over this period; this is an average rate of increase per annum in excess of 5 per cent, a faster rate than has ever been achieved before. The target increase of wage paid jobs in non-agricultural activities has been put at 200,000, representing a rate of increase of 5.8 per cent per annum, while the target increase of agricultural wage paid job opportunities has been set at 175,000, or a rate of increase of 4.5 per cent per annum. If these ambitious, but still realistic, targets are achieved, Government will have increased the proportion of the labour force in wage paid jobs from approximately 25 per cent to 28 per cent over the period and have increased the proportion of non-agricultural wage-paid jobs in the total from 47 per cent to 49 per cent.

4.21. Other job opportunities over and above those providing a regular wage will be created. The fact that 75 per cent of the working population do not now receive a wage does not mean they are unemployed. Some 120,000 persons were employed outside of agriculture in 1968 as self-employed persons and family workers: it is expected that non-agricultural non-wage employment opportunities may rise to at least 150,000 by 1974. The majority of the working population now find their means of livelihood on the land and the majority will continue to do so in 1974. As indicated in Chapter 2, an estimated

3.7 million adult men and women, or 85 per cent of the total labour force, worked on the land in 1968. In 1974, if the non-agricultural employment targets outlined above are achieved, this total will have risen to approximately 4.3 million, and on the basis of the projection of wage paid jobs in agriculture, approximately 425,000 additional men and women will earn their livelihood as self-employed farmers and family workers on the land.

4.22. It is on the basis of an analysis of these inescapable facts that Government has placed the major emphasis of its planning strategy on rural development in general and faster agricultural development in particular. The rate of expansion of cash crop development in the small farm areas since Independence saved the country from a situation of labour unemployment and under-employment very much more severe than has been experienced, and it is only by an acceleration of cash crop and livestock development now that the rise of agricultural incomes can be sufficient to provide the increased number of workers living off the land with an improving standard of life. Chapters 5 and 8 discuss the development targets for agriculture in more detail. If the target rate of agricultural development is achieved and the targets for employment growth in the non-agricultural industries set out here are also achieved, cash agricultural production will expand by an average of 6 per cent per annum (and agricultural production as a whole by 4.5 per cent per annum), while the numbers of people living off the land will rise by approximately 2.7 per cent per annum. This will represent the steady but regular improvement which this Plan is drawn up to achieve. A target to achieve anything more than this would be neither practical nor realistic.

ESTIMATED EMPLOYMENT 1968–1974

Table 4.1

	Average Growth Rates 1968–1974			Total Employment 000's		Wage Employment (000's)	
	GDP	Total Employment	Wage Employment	1968	1974	1968	1974
Forestry	8·0	6·7	6·7	24·4	36·0	20·3	30·0
Fishing	7·9	5·0	4·8	14·3	19·0	6·4	8·5
Mining	6·9	4·0	4·5	6·1	8·0	4·6	6·0
Manufacturing	9·2	4·0	4·5	109·6	139·0	82·7	107·5
Building and Construction..	9·7	10·0	10·0	37·1	66·0	34·4	61·0
Electricity and Water ..	8·2	1·8	1·9	6·1	7·0	5·8	6·5
Transport	9·8	8·2	8·2	56·7	91·0	55·0	88·0
Trade	6·4	3·2	4·0	113·3	137·0	56·9	72·0
Building Insurance etc. ..	9·0	7·0	7·2	9·2	14·0	8·9	13·5
Sewers	8·8	6·0	6·2	77·1	110·0	58·6	84·0
Private Households ..	6·6	5·0	5·0	37·6	50·0	37·6	50·0
General Government ..	8·0	5·0	5·0	129·1	173·0	129·1	173·0
TOTAL NON-AGRICULTURAL ECONOMY ..	7·7	5·1	5·8	620·6	850·0	500·3	700·0
Agriculture	5·2	2·7	4·5	3,679·4	4,300·0	556·6	725·0
TOTAL ECONOMY ..	6·7	3·1	5·1	4,300·0	5,150·0	1,056·9	1,425·0

Tourism ?

4.23. Chapter 5 describes the projected rates of growth of production in each industry. These rates are reproduced in table 4.1, above, in order that they may be compared with the projected rates of employment growth for which they provide a basis.

Other Labour Policies

4.24. Aside from the formulation of policies and the implementation of programmes which will foster increasing levels of employment, Government exercises a number of other general responsibilities for labour. Government establishes and regulates conditions of wage employment in order to ensure reasonable remuneration, reasonable treatment and a decent working environment for employees. Secondly, Government provides facilities for the resolution of trade disputes and will in future screen all wage agreements as part of the Incomes Policy described later in this chapter. Thirdly, Government undertakes a variety of activities which contribute to a more efficient operation of markets for the services of labour. Finally, Government provides training programmes which are designed to upgrade the labour force in terms of knowledge and skills.

4.25. The principle of tripartite co-operation between employers, employees and Government has been the cornerstone of Government's labour policy. In the past, this co-operation has taken many forms. For example, in 1964, the well-known Tripartite Agreement involved employers and Government in the provision of 34,000 new jobs. For their part, workers agreed to refrain from strike actions and accepted a moratorium on wage increases. Less dramatic, but of greater long-run importance, are the advice and expertise provided to Government by both labour and employers on such matters as trade testing, apprenticeship programmes, appropriate curricula for craft training and working conditions. Labour and employers have participated directly in the operations of both the Industrial Courts and Government's vocational and technical schools. Aside from the direct benefits which have resulted from tripartite co-operation, the close working relationship which has evolved between the three parties has resulted in an enhanced mutual appreciation of their economic inter-dependence.

4.26. This appreciation and continued co-operation will be essential during the Plan period for the achievement of progress toward an alleviation of labour problems. Tripartite co-operation will be necessary in improving conditions of employment and maintaining industrial peace. Government will also institute new training programmes which will be heavily dependent upon the direct participation of employers, not only in financial terms, but also in terms of providing expertise and advice.

Industrial Peace

4.27. The maintenance of industrial peace is regarded as an important part of Government employment policy, for work stoppages will tend to increase the cost of employing labour and therefore jeopardize the employment targets contained in the Plan. A stable and contented work force should be regarded as an important economic resource and a significant encouragement to investment and the higher employment of labour. Government will therefore endeavour to maintain industrial peace at all times, provided this is not at the expense of the national interest as defined by its incomes policy.

4.28. The machinery governing the resolution of grievances and labour disputes is defined in the Trade Disputes Act. During the Plan period, Government intends to amend the Trade Disputes Act to provide for the compulsory arbitration of all disputes which cannot be settled within the existing lower level machinery.

Employment Services

4.29. Given the increasing numbers of people entering the labour force and the relative shortage of job opportunities, it is important that all labour markets operate efficiently, first in discovering where vacancies exist and, secondly, in providing qualified applicants to fill such vacancies. Most permanent jobs are probably filled now through private and informal means. When vacancies occur, the employer simply utilizes his own network of friends to discover appropriately qualified applicants. The exception to this general rule is, of course, the Public Service where all posts must be advertised and strict procedures are followed to ensure fairness in evaluating applicants. Recently, there has been a significant growth in the number of registered private profit-making placement agencies. However, many of these firms fail after a short period, and of the small number which survive, only a few operate on a large scale. The more successful agencies are linked with Business or Commercial Colleges, the idea being that the students, mainly stenographers and secretaries, are placed in employment through the agencies.

4.30. Aside from these few relatively specialized private agencies, the only formal employment services in Kenya are provided through the Ministry of Labour, which operates 23 Labour Exchanges in towns throughout the country. A large number of other job seekers are placed through the Kenyanization of Personnel Bureau. Labour Exchanges are currently placing over 1,100 workers per month in jobs. About 50 per cent of these workers are unskilled and many of the jobs are only temporary. On the other hand, about 15 per cent of the total workers placed are craftsmen and production workers. Small numbers of professional, technical, administrative and managerial personnel are also placed through the Exchanges. Of the total number of workers who apply for employment through the Labour Exchanges, approximately 22 per cent are actually placed in jobs. However, it should be pointed out that most unsuccessful applicants are either unskilled or semi-skilled workers. Little or no difficulty is experienced in placing skilled workmen. In fact, Grade I and Grade II craftsmen and Artisans are in such great shortage that more than 2,000 work permits were issued to expatriates in these occupational categories in 1968.

4.31. The Kenyanization of Personnel Bureau also provides an extremely significant employment service. Disregarding the school leaver group, the Bureau registered over 3,700 job-seekers in 1968. With the exception of those seeking jobs as clerks, most of those who were registered were placed in jobs. The Bureau maintains a manpower registry of secondary school leavers, university students, students leaving vocational training institutions and others who have acquired academic or vocational training. Although there is some overlap in the occupations with which the Labour Exchanges and the Bureau deal, generally, the Bureau deals only with those occupations which require formal education and/or training.

4.32. Government does not regard the employment services offered both privately and publically to be adequate in terms of the country's needs. First, there is no doubt that the formal services are usually by-passed by employers and, further, that the present practices in the private sector lend themselves to nepotism. Secondly, the by-passing of the formal services by private employers means that both the Labour Exchanges and the Bureau have far too few vacancies with which to match formal applicants. Thirdly, the Bureau is understaffed and is currently unable to cope with its rapidly increasing work load.

4.33. As a first step in improving the effectiveness of the official employment services, Government will require all vacancies in local government establishments to be filled through the official employment services. The introduction of a compulsory system for private employers would probably be undesirable and, in any event, cannot be introduced as it would be contrary to International Labour Convention No. 88 which Kenya has ratified. Nevertheless, Government will consider ways to encourage private employers to utilize the official services which are provided. Secondly, the Labour Exchanges and the Kenyanization of Personnel Bureau will be strengthened and a better division of labour between the two will be introduced. The Kenyanization of Personnel Bureau will provide a service only for those whose training and experience would enable them to be classified as "skilled" workmen, while the Labour Exchanges will handle only un-skilled and sem-skilled workers. A central Labour Exchange will be established in Nairobi to provide a national scope for the services of the 23 local exchanges. The central Labour Exchange will act as a clearing house and maintain a central registry of vacancies which will be communicated to local exchanges daily.

Trade Testing and Vocational Training

4.34. The maintenance of efficient labour markets involves more than maintaining and strengthening the official employment services. Standards must be established with respect to levels of skill and workers graded accordingly; and, provision must be made for apprenticeship programmes in all trades.

Trade testing has its origins in the employer's need to identify from among the many applicants for skilled employment those who, in fact, possess the skills required. As a result, Government established a system of trade testing, the objectives of which were—

(*a*) to classify artisans;

(*b*) to provide standards for the training, both formal and otherwise, of persons entering into industrial employment in the craft trades.

The trade testing system is today the only official method for the practical assessment of skilled craftsmen and technicians. Most employers, including those in the public sector, require that workmen obtain National Trade Test Certificates before they can be either employed in the first instance or be promoted. The wage structure for craftsmen is based on the National Trade Testing System.

4.35. The basic legislation governing trade testing and vocational training are the Industrial Training Act and the National Industrial Vocational Training Act. Under the provision of the former, the Ministry of Labour official in charge of the Trade Testing Centre was appointed the Controller of Apprenticeship and trade testing officers were made Inspectors of Apprenticeship. The purpose of the latter legislation was to speed up the training of the great number of school leavers. The Controller of Apprenticeship has a major responsibility for implementing the provisions of this latter Act.

Apprenticeship Training

4.36. Apprenticeship training has experienced steady growth since the Industrial Training Act was implemented in 1959. Under this Act, employers are required to register all contracts of apprenticeship and indentured learnership. Due to rapid industrialization and the need to train local workmen as replacements for expatriates now employed under the work permit system, the number of registered contracts has increased significantly in recent years; at the beginning of 1968, they numbered 811.

4.37. Although the increase in apprenticeship training has been substantial, it has not been sufficient to meet the requirements of economic growth. The more prominent causes of the current inadequacy are—

(*a*) there are a large number of small firms in Kenya which cannot afford to undertake responsibility for apprenticeship training;

(*b*) those large firms which do undertake this type of training generally give more emphasis to production than training;

(*c*) the prevalance of a considerable amount of confusion among employers with respect to the importance of apprenticeship and the methods by which such programmes should be established and then maintained.

4.38. In order to improve this situation, it is proposed that the Industrial Training Act be amended so that, in the future, an employer of apprentices would be required to appoint on his own work force a person responsible for apprentices and for an apprentice master to be posted to the work site where apprentices are employed for a period of three months or more. Further, it will be proposed that persons giving on-the-job training to apprentices should attend a short "training-with-industry" course to be offered by the Ministry of Labour. It will also be necessary to increase the number of Inspectors of Apprenticeship in order to provide for more effective enforcement of the Industrial Training Act.

National Industrial Vocational Training Scheme

4.39. In 1964, the Government invited an International Labour Organization expert to survey Kenya's facilities for industrial vocational training. As a result of this report, an Industrial Vocational Training Scheme was set up. Under this scheme, the overall planning and organization of industrial vocational training will be the responsibility of a Tripartite National Council which will establish committees to work out detailed training programmes for each industry. An Industrial Training Section will be established in the Ministry of Labour to implement the programmes of these committees and, further, to provide general supervision for all training and trade testing activities. The scheme requires the close co-operation of the Ministry of Economic Planning and Development for the provision of estimates of national manpower requirements, and the Ministry of Education which is responsible for most of the basic vocational training through its management of all Secondary Vocational Schools.

4.40. The scheme also envisages expanded programmes of training at two National Industrial Vocational Training Centres. There is, presently, only one such Centre in Kenya (located in Nairobi) which incorporates the Trade Testing Centre. During the Plan period, an additional Centre will be established at Kisumu. These Centres will offer a variety of courses ranging from basic craft training to instructor and supervisory training. Also, the Centres will become increasingly involved in offering courses for the upgrading of skilled workmen. When the Nairobi Centre alone is operating at its planned capacity, it will have an annual output of 40 instructors, 100 supervisors and 400 workmen. It will also be involved in the provision of formal training for from 50 to 100 apprentices. This scheme will require a development programme costing K£365,000, of which K£252,000 will be required to construct a second National Industrial Vocational Training Centre, K£40,000 for the purchase of land and K£62,000 for additional facilities. In addition, expanded Employment Centre facilities in Nairobi will cost K£10,000.

Table 4.2 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
(1) Industrial Vocation Training Centre Kisumu	—	180	73	—	—	253
(2) Land for same	—	40	—	—	—	40
(3) Facilities for Industrial Training Centre Nairobi ..	—	62	—	—	—	62
(4) Employment Exchange facilities Nairobi..	—	10	—	—	—	10
TOTAL	—	292	73	—	—	365

Middle and Higher Level Manpower

4.41. The country is confronted with two major human resource problems, namely: the existence of a large and growing surplus of unskilled labour and a persistent scarcity of certain types of middle and high level manpower. The first part of this chapter is concerned with the former problem and those Government policies which are directed toward its solution. This section is concerned with the latter problem.

4.42. High and middle level manpower is defined here as that group of persons who have acquired, as a minimum, a Form IV education or its equivalent. People with these educational and/or training qualifications occupy strategic positions in any economy for, by and large, they comprise society's total stock of administrators, managers, skilled technicians, and professionals. The availability of sufficient numbers of Kenyans with these qualifications, occupying economically strategic positions, is one condition for the success of efforts directed at national development. Further, and equally important, it is a condition which must be satisfied before the country is able to reduce its dependence upon foreign nations for the manpower required for development purposes.

4.43. With these conditions in mind, the Government has undertaken two manpower surveys since Independence, one in 1964 and another in 1967. The purposes of these surveys were, first, to estimate the total stock of high and middle level manpower by occupation and qualifications and, secondly, to project future requirements. The first survey had limited objectives and projected manpower requirements only to 1970. The second survey was undertaken in connection with the new Development Plan and was designed to be consistent with the data requirements for planning educational and training services. It contains projections of manpower requirements which extend well beyond the Plan period into the early 1980s.

4.44. The manpower portion of a relatively short-term development Plan can only reflect the longer-term perspective which is necessary for manpower planning. This is because those policies which are adopted today for education and training will only affect the supply of manpower in five, ten or 15 years. As a consequence of the relatively short-term nature of the Development Plan, 1970-1974, this section of the Plan will only identify those manpower problems which will persist during the Plan period and those policies which have been adopted to deal with these problems. A "perspective" (long-term) Plan for manpower development will be published at a later date.

The Classification of High and Middle Level Manpower

4.45. The 1967 *Manpower Survey* classified employed manpower according to citizenship, sector where employed, size of firm where employed, experience, education and training. Consistent with the data requirements for planning the educational and training systems, Kenyanization and technical assistance requirements, all manpower were classified into one of five categories with respect to education, training and experience. The first four categories comprise the entire stock of high and middle level manpower:—

CATEGORY A: Professional occupations requiring University or other higher education.

CATEGORY B: Occupations requiring roughly a Form IV education and four or more years of additional training and experience, or, Form VI and somewhat less training and experience.

CATEGORY C: Occupations requiring a Form IV education and two or three years of experience.

CATEGORY D: Occupations requiring a Form II education and two or more years of training and experience.

CATEGORY E: Semi-skilled and unskilled workers. By definition, the difference between total employment and the stock of high and middle level manpower.

Characteristics of High and Middle Level Manpower

4.46. A cross classification of employment data by citizenship, by sector where employed and by education, training and experience category reveals that—

(*a*) more than 40 per cent of all high and middle level manpower posts are occupied by non-citizens;

(*b*) Kenyanization has proceeded much more rapidly in the public sector of the economy than in the private sector; In the public sector, approximately 27 per cent of all posts were occupied by non-citizens; in the private sector, more than 47 per cent were occupied by non-citizens.

(c) Those occupations requiring higher levels of education, training and experience continue to be heavily occupied by non-citizens. This is particularly true of the private sector of the economy, where in 1967, most posts requiring a Form IV education and two or three years of experience and better were held by non-citizens.

These data are summarized in Table 4.3.

4.47. A cross-classification of employed manpower by occupation, by citizenship, indicates that many important occupations remained almost totally dominated by non-citizens: in 1967, generally, the more training and experience required by an occupation the heavier the non-citizen participation was in that profession. For example, non-citizens heavily dominated such professions as Architecture, Medicine, Engineering and University Teaching, occupations which require significant education and experience beyond the first University degree. With the exception of occupations within the public service non-citizens, if not in an absolute majority, were heavily represented in all high and middle level occupations. These data are shown in Table 4.4.

EMPLOYMENT OF HIGH AND MIDDLE LEVEL MANPOWER, BY CATEGORY, BY CITIZENSHIP AND BY SECTOR, 1967

Table 4.3

Sector and Category	Employment	Citizens	Non citizens	Citizens as per cent of Total	Non citizens as per cent of Total
PUBLIC SECTOR—					
A	6,539	2,965	3,574	45·3	54·7
B	10,179	7,478	2,701	73·5	26·5
C	4,539	3,277	1,262	72·8	27·8
D	16,196	13,570	2,626	83·8	16·2
TOTAL PUBLIC SECTOR	37,453	27,290	10,163	72·9	27·1
PRIVATE SECTOR—					
A	11,093	3,128	7,965	28·2	71·8
B	16,287	7,610	8,677	46·7	53·3
C	11,119	5,255	5,864	47·3	52·7
D	38,105	24,512	13,593	64·3	35·7
TOTAL PRIVATE SECTOR..	76,604	40,505	36,099	52·9	47·1
PUBLIC AND PRIVATE SECTOR—					
A	17,632	6,093	11,539	34·6	65·4
B	26,466	15,088	11,378	57·0	43·0
C	15,658	8,532	7,126	54·5	45·5
D	54,301	38,082	16,219	70·1	29·9
TOTAL PUBLIC AND PRIVATE SECTORS	114,057[1]	67,795	46,262	59·4	40·6

Source: *Manpower Survey, 1967.*

[1] The total employment estimates shown in this table refer only to employment in those occupations covered by the survey. Also, within each occupation only those jobs are considered which require the equivalent in formal education training and experience of a Form IV education. Finally, users of these data should be warned that the information contained in the table was not derived from an enumeration of employment, but from a sample survey of firms in the private sector and from a comprehensive survey of public institutions.

High and Middle Level Manpower by Occupation and Citizenship, 1967

Table 4.4

Occupation	Total Employment	Non-citizens	Non-citizens as percent of total employment
Architects	235	224	95·1
Quantity Surveyors	31	21	67·7
Engineers—Civil	415	300	72·3
Electrical	465	380	81·7
Mechanical	374	341	91·0
Chemical	60	41	68·3
Other	34	19	55·8
Surveyors	169	116	68·6
Physical Scientists and Mathematicians	306	134	43·8
Veterinarians	73	49	67·1
Biologists and Related Scientists	107	56	52·3
Agronomists	234	131	56·0
Doctors	762	613	80·2
Dentists	62	53	85·5
Nurses and Midwives	2,189	118	51·0
Administrative Officers, Government[3]	1,264	186	14·7
Pharmacists	16	15	93·7
Compounders and Medical Technicians	688	205	29·7
Optometrists and Professional Medical Workers	403	50	12·4
University Teachers—			
Science	102	73	71·5
Arts	154	104	67·5
Secondary School Teachers	3,645	2,449	67·1
Primary School Teachers[1]	1,657	839	50·6
Librarians and Related	1,365	136	10·0
Artists, Writers and Related Workers	468	189	40·3
Lawyers	362	186	51·3
Directors, Administrators and Working Proprietors	5,885	4,020	68·4
Managers and Farmers with more than 14 employees	5,704	3,711	65·0
Technicians and Draughtsmen	5,620	1,905	33·9
Accountants, Economists and Statisticians[2]	3,781	2,527	66·8
Social Workers and others	720	37	5·1
Sales workers	8,978	4,145	46·1
Clerical Workers	34,739	11,215	32·3
Skilled Manual Workers	22,739	7,194	31·6
Skilled Manual Foreman and Supervisors	4,437	2,036	45·8
Professional Workers in Transport and Communication	816	495	60·7
Executive Officers, Government[3]	4,018	735	18·3

Source: *Manpower Survey, 1967.*

Notes—[1]All primary school teachers do not qualify as high and middle level manpower. Those reported here do.

[2]In this occupational grouping, there are 43 economists and 14 actuaries and statisticians. Of the accountants, 319 are professional accountants, 1,643 are non-professional having some certificate or diploma in addition to having completed Form IV and 1,580 are lower level accountants in possession of a Form IV education but without significant professional training.

[3]Executive officer and administrative officer are Civil Service job classifications. Executive Officers normally occupy positions which require a Form IV education although somewhat less than 10 per cent of such jobs should be filled by university graduates. On the other hand, the Government administrative officer classification normally requires a university education.

4.48. An examination of high and middle level employment by race, yields similarly interesting information. For example, while Africans constituted more than 97 per cent of Kenya's population, they held 51 per cent of all high and middle level jobs. Asians constituted about 1.8 per cent of the population and occupied nearly 35 per cent of such posts. Europeans constituted less than one-half of one per cent of the population and occupied nearly 17 per cent of all high and middle level posts.

4.49. The implications of these data, which show on the one hand, the dominance of non-citizens in economically and socially strategic positions and, on the other hand, the very low participation rate of Africans in important occupations are obvious. Government policy must accelerate the replacement of non-citizens by citizens and at the same time, adopt educational and training programmes which will ensure a participation rate for Africans more consistent with their numbers. These policies are discussed below in the section on Kenyanization.

4.50. It should be emphasized that the data in Tables 4.3 and 4.4 are for 1967 and that progress has since been made in the Kenyanization of many industries, firms and occupations. This is particularly true of the transportation, construction and retail trading industries where Government has taken significant action to improve the participation of Kenya citizens. Similarly, progress has been recorded in managerial occupations of all kinds and in many of the technical and science-based occupations which were surveyed in 1967. As a consequence, these tables should be interpreted as recording a recent situation and not the current one.

Kenyanization

4.51. Government's educational and manpower development programmes are based on the target that almost all professional and technical posts will be occupied by citizens by 1982. In many professions, especially those which do not require extensive periods of training and experience, full Kenyanization will be achieved at a much earlier date. On the other hand, in those occupations requiring long periods of formal training and/or the understudy of senior professionals, full Kenyanization will not be achieved as a general rule until fairly close to the target date mentioned.

4.52. The rate at which Kenyanization is achieved also depends upon factors other than an occupation's required term of training and experience. The rate of growth in Kenya's economy and natural attrition from the labour force will, by and large, determine the additional numbers of high and middle level manpower required. If qualified Kenya citizens are not forthcoming in adequate numbers, non-citizens must be recruited for vacancies which would not otherwise be filled. A failure to fill such vacancies would be reflected, very quickly, in a generally slower rate of economic growth.

4.53. Government monitors the market for the services of high and middle level manpower to determine whether qualified Kenyans are available for vacancies as they occur and, if not, to enable the recruitment of qualified non-citizens through a controlled system of work permits. The Kenyanization of Personnel Bureau, the Directorate of Personnel, the Immigation Department and the Ministry of Economic Planning and Development co-operate to ensure that co-ordinated action is taken to fill all vacancies with Kenyans if possible and with non-citizens if necessary.

4.54. Kenyanization and the demand for non-citizen personnel cannot be discussed quantitatively without reference to the projected total demand for and total supply of high and middle level manpower which will be forthcoming during the Plan period.

Projected Demand and Supply

4.55. The inventory data from the *Manpower Survey of 1967* provide bases for projections of manpower requirements for the Plan period 1970-1974. The projections assume that—

(*a*) all non-citizens will be replaced by citizens within a period of 15 years from 1967.

(*b*) planned target rates of growth for each industry will be achieved.

(*c*) the productivity increases assumed for the Plan will be realized.

(*d*) the rate of growth of total high and middle level manpower requirements will be equal to the rate of growth in total employment.

(*e*) all employees who retire or die must be replaced.

4.56. In making manpower projections, all known public sector development programmes were examined in terms of their implied manpower requirements. Similarly, where specific sectoral studies had been completed containing projections of manpower requirements, e.g., the Report of the Agricultural Education Commission, these projections were adopted.

4.57. Projected supply figures are derived from a number of sources which include, projected enrolments in Faculties of the University of East Africa, the Central Registry of Students in Higher Education and planned outputs from training institutions. Of these sources, the Central Registry of Students returning from overseas is considered the weakest. As a consequence, data derived from this source are listed separately in Table 4.5.

4.58. Table 4.5. provides preliminary estimates, by occupation, of both manpower requirements and manpower supply for the period, 1969-1974. These data should be used with caution, first, on the demand side, because by their very nature they are based upon a number of assumptions with respect to the economic performance of the Kenyan economy, which can be affected by many factors. On the whole, optimistic assumptions have been made and, consequently, if the demand projections err, they probably err on the high

Table 4.5

Demand for and Supply for High and Middle Level Manpower, 1969–1974

Numbers

	Total Employment	Additional Numbers Required			Additional Numbers Supplied				Cummulative Surplus (+) or Deficit (−)
		For Kenyanization	For Growth and Wastage	Total	From University of East Africa	From Overseas	Other Kenya Training Programmes	Total	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Architects	235	72	119	191	30	10	—	40	−151
Quantity Surveyors	31	12	12	24	35	—	—	35	+11
Engineers—Civil	415	96	219	315	120	53	—	173	−142
Electrical	465	114	180	34	78	50	—	128	−166
Mechanical	374	96	154	250	110	68	—	178	−72
Chemical	60	12	26	38	—	20	—	20	−18
Other	34	6	16	22	—	50	—	50	+28
Surveyors	169	30	231	261	40	17	110	168	−93
Veterinarian	73	18	33	51	60	14	—	74	+23
Agronomists	234	42	92	134	113	35	—	148	+14
Doctors	762	156	405	561	290	100	—	390	−171
Dentists	62	18	32	50	—	8	—	8	−142
Professional Nurses and Midwives	2,189	336	1,046	1,381	900	300	—	1,200	−181
Administrators, Government	1,264	48	484	532	—	—	—	—	—
Pharmacists	145	48	54	102	—	40	—	40	−62
Compounders and Medical Technicians	688	72	305	377	—	15	645	660	+283
Optometrists and Medical Professionals	403	12	160	172	—	20	—	20	−152
Teachers—University, Science	102	24	36	60	—	50	—	50	−10
University, Arts	154	30	56	86	—	60	—	60	−26
Secondary	3,645	786	1,002	1,788	825	160	1,500	2,485	+697
Primary/Other	1,654	—	—	—	See Chapter	17 on	Education	—	—
Librarians and Related	1,365	24	731	755	8	42	—	50	−705
Lawyers	362	42	185	227	173	53	—	226	−1
Artists, Writers and Related	468	66	230	296	10	45	—	55	−241
Directors, Administrators, and Proprietors	5,885	1,092	3,205	4,297	—	—	—	—	—
Managers and Farm Managers	5,704	1,026	3,818	4,844	—	—	—	—	—
Technicians and Draughtsmen	5,620	606	2,280	2,886	—	100	1,610	1,710	−1,176
Accountants, Economists and Statisticians	3,781	750	1,601	2,351	180	220	370	780	−1,571
Social Workers and Professional and Technicians	720	12	345	357	20	25	120	165	−192
Sales	8,978	1,320	3,855	5,175	—	—	—	—	—
Clerical	34,739	3,624	13,958	17,582	—	—	—	—	—
Skilled Manual Workers	22,739	2,178	10,640	12,818	—	—	7,000	7,000	−5,818
Skilled Manual Foremen	4,437	618	924	1,542	—	—	600	600	−942
Professionals Transport and Communications	816	108	271	379	—	—	50	50	−299
Executive Officers		4,018	234	1,523	1,757	—	—	—	—

Notes—

1. Some occupations, e.g. Government administrators and Executive officers do not provide manpower problems as adequate numbers of persons with necessary educational qualifications are forthcoming. Requirements for these occupations are for a general education, not involving specialisation. As a consequence, the job market for these individuals is extremely broad and it is not appropriate to consider the supply of manpower for these occupations as separate from that of the broader market.
2. All primary school teachers do not qualify as high and middle level manpower. For the supply and demand for primary school teachers, *see* Chapter 17 on Education.
3. The supply of doctors from overseas during the Plan period is unknown. The central registry of students in higher education [illegible] 250 students will complete their training and return to Kenya before 1974. [illegible]

side. The supply data have more serious limitations, largely because of the unreliability of the Central Registry of Students' data on probable numbers of students returning from overseas.

4.59. The column of figures showing the cumulative surpluses and deficits requires some interpretation. The existence of a surplus *does not* necessarily mean that there will be unemployed qualified individuals in that occupation. It *does* mean that Kenyanization can probably proceed more rapidly in that occupation than other occupations. On the other hand, the appearance of apparent deficits means that Kenyanization, over the period in question, will not proceed as rapidly as desired. The appearance of a deficit *larger* than the Kenyanization target, means that the target will probably not be met and that *additional* numbers of non-citizens will be required in that occupation. It should be pointed out that the Kenyanization target is based upon *average* annual targets; the average is to be achieved over the longer period ending in 1982.

4.60. The data in Table 4.5 imply that Kenya will continue to be heavily dependent upon non-citizens to occupy middle and high level posts during the Plan period. In general, the number of *additional* non-citizens who must be recruited in a particular occupation can be determined by subtracting column (8) from column (3). Occupations which will require significant non-citizen recruitment are:

- Architects
- Engineers
- Surveyors
- Doctors
- Dentists
- Pharmacists
- Optometrists and Medical Technicians
- Librarians and Related
- Artists, Writers and Related
- Accountants, Economists and Statisticians
- Social Workers-Professional and Technical Workers
- Professional Transport and Communication Workers.

General Policy Implications of Specific Manpower Shortages

4.61. The existence of manpower shortages requiring the recruitment of additional non-citizens, provides Government with specific indications of those occupations for which numbers in training must be expanded either at East African institutions or overseas.

4.62. Expansion plans for the University College, Nairobi, are discussed in Chapter 17. An examination of that chapter will show that those faculties which train manpower for occupations experiencing increasing cumulative deficits are given a high development priority. They are, precisely, those faculties which provide training facilities leading to employment in the occupations listed above.

4.63. Government recognises that the large cumulative deficits of skilled manual workers, skilled manual foremen and individuals with commercial training will require the initiation of extraordinary measures. As a consequence, and as a matter of urgency, the Government intends to review the structures of technical, vocational and commercial education early in the first year of the Plan period with a view toward, first, rationalizing Government operations in these areas, and secondly, providing for expanded training programmes.

4.64. The Industrial Training Act will be amended to provide for an industrial training levy system whereby employer training costs will be more equitably shared by employers. For its part, the Manpower Section of the Ministry of Economic Planning and Development will develop demand projections for each craft and skill with a view toward providing guidelines for the development of specific training facilities.

4.65. Table 4.5. also provides general guidelines for scholarship policies. There are now more than 2,000 Kenya citizens studying at institutions of higher learning abroad. Most of these students are on scholarships provided by the foreign host Governments. In order to make up the cumulative deficits which will be experienced during the Plan period and to ensure that similar deficits are not incurred in succeeding Plan periods, Government's Scholarship Selection Board will accept only offers of scholarships in the following fields and in approximately the following numbers:

OVERSEAS SCHOLARSHIPS REQUIRED TO MEET KENYA'S HIGH AND MIDDLE LEVEL MANPOWER NEEDS, 1970–1974

Table 4.6

Fields of Study	Number (Approximate)
Architecture	150
Engineering—Civil	100
Electrical	120
Chemical	120
Surveyors	100
Dentists	60
Pharmacists	30
Medicine	(As many as possible)
Optometrists and Medical Technicians	300
Librarians and Related	750
Accountants, Economists and Statisticians	500
Professional Transport and Communications Workers	400

Specific Policies to be Implemented

4.66. Government programmes to expand training facilities do not bear fruit until the individuals who have received the training are performing efficiently in jobs for which they are qualified. The time lag between the initiation of an expanded training programme and its results in terms of more Kenyans occupying high and middle-level posts varies from occupation to occupation. For example, the current expansion programmes at the University in Medicine, Engineering, Architecture, and Science will not show results until the *next* Plan period. On the other hand, expanded training programmes for many technical, commercial and craft occupations will bear fruit during the five years term of the 1970-74 Plan. As a consequence, the existence of shortages of manpower in some occupations over the Plan period does not necessarily mean that current training programmes are inadequate. Current manpower shortages are attributable to the inadequacy of educational and training programmes before Independence.

4.67. Following the recent completion of the Manpower Survey and projections of high- and middle-level manpower requirements, Government is formulating plans for each occupation in order to ensure that manpower needs and Kenyanization targets are met.

4.68. Private sector training programmes will be an important component of these individual occupation Plans. In its administration of entry permits, Government will require that applications for such permits are accompanied by descriptions of the efforts which firms are making to Kenyanize the positions for which permits are needed. The burden will be placed on the individual employer to show that an adequate effort is being made to train citizens for posts occupied by non-citizens.

4.69. Individual employers should also be much more willing to participate in Occupation Training Projects if they could share the cost of training with their competitors who are apt to hire away their trained people. The Industrial Training Levy which the Government has proposed should meet this need. Under the proposed legislation (which was initially proposed by employers) any group of employers with mutual interest in training will be permitted to organize themselves and nominate a Board to plan and operate a training scheme financed by a levy on themselves.

4.70. The employer group will recommend the scope and content of the training schemes, the numbers and qualifications of trainees and other aspects of the programme. Government officials will be available to advise both on the content of the training schemes and the outline of the programme.

4.71. In acting on the formal proposal, the Government will establish its own board for an industry if no industry group has been organised or if it is dissatisfied with the plans that are proposed. This programme is fully accepted by the Federation of Kenya Employers upon whose members the main financial burden will fall.

4.72. The country is fortunate that at the present time it has a post-secondary school technical training system that largely depends on employer participation. In fact, most trainees are already employed. This is the crucial factor in assuring that the quality of training is consistent with the needs of employers.

4.73. As Kenya's technical training programmes grow, every effort must be made to maintain and nurture the present close relationships between training schools and employers. The training levy programme is well-designed to assist in this purpose. It should foster progressive and realistic training schemes.

4.74. While training costs are regarded as costs of production which should, ultimately, be borne by the employer, a substantial part of training costs are financed by Government through investments in the national Industrial Vocational Training Scheme, the Kenya Polytechnic and other institutions. Over the Plan period, Government's financial contribution to these institutions will be significantly increased in order to expand total enrolments and to provide training for a larger number of occupations.

The Training of Administrators and Managers

4.75. One of Kenya's most urgent needs is to secure greater efficiency in and capacity for administrative and managerial training. During the previous Plan period, Kenya, like many other newly independent states, made a heavy investment in training facilities for administrative and managerial personnel at the Kenya Institute of Administration, at the Management Training and Advisory Centre and at the East African Staff College. During the Plan period, there will be greater focus on the precise objectives of training at these institutions, and on evaluating objectively the benefits and costs of various kinds of high-level training.

4.76. One clear lesson of the past is that while modern aids to improved decision-making in administration and management are teachable and may be useful, the success of management training depends on its being able to demonstrate its relevance and applicability to the actual work situations of trainees. For this reason, conventional training courses are not necessarily the answer to the need for securing better decision-making in management and administration.

4.77. A new management services division of the Directorate of Personnel has been established with responsibility for the general improvement of managerial efficiency. It is planned that this division will foster a number of developments through training and by other means to ensure that senior administrators are given the opportunity to study techniques introduced elsewhere and adapt them to Kenyan conditions.

The Implications of Manpower Requirements for Education

4.78. Considered in terms of manpower requirements, the educational structure produces too many individuals with a general education and inadequate numbers of persons with specialized training and skills. For example, the number of Form II leavers in 1969 will significantly exceed the number required for wage jobs and further education and training. By 1974, this excess over requirements will increase. A similar situation is developing with Form IV leavers where the excess over requirements for wage employment will rise very rapidly over the Plan period.

4.79. On the other hand, in 1969, there were deficits in the numbers of Form VI leavers required for further education, training and jobs. Over the Plan period, this deficit will tend to disappear and, by 1974 the education system will produce an excess of Form VI leavers over requirements. On the other hand, higher education is now producing too few people, especially in Science based occupations. Over the Plan period, this situation will improve significantly but there will remain some scope for expansion, especially giving consideration to Kenya's current heavy reliance upon institutions of higher learning abroad.

4.80. The prospect of large numbers of unemployed school leavers revealed by the Manpower Survey does not include consideration of self-employment and the likelihood that many school leavers will find employment in occupations not covered by the Survey. Self-employment efforts by private individuals and increases in employment in occupations not considered in the manpower survey can alleviate considerably the problem of the educated unemployed.

4.81. The expansion in the numbers of children attending school has not always been accompanied by the maintenance of high quality and the Ministry of Education has, as a consequence, introduced a number of programmes to enhance the quality of teaching, to improve the curricula and to provide the equipment and materials necessary for the maintenance of decent standards. These programmes are discussed in Chapter 17 on Education.

4.82. Government's policy toward secondary education will therefore place higher priority on improving the quality of education than in rapidly expanding the numbers of young people enrolled. Ultimately, the success of this policy will be dependent upon the people accepting a similar priority, realising that nearly two-thirds of all young people now in secondary schools, will have difficulty finding wage employment or opportunities for further education.

Careers Advice

4.83. Government intends to take whatever action is necessary to maximize the number of secondary school leavers who ultimately find productive employment. Government's general policies in this respect are discussed in the section on *Employment*. More specifically, Government intends to strengthen its system of providing the secondary school students with careers advice in order to encourage them to accept those opportunities for further training and education which are consistent with their abilities and with national manpower requirements. To this end, Government has produced a Careers Guide for use by Headmasters which outlines, by occupation, opportunities which are available for training, education and employment.

4.84. While there are presently large shortages of citizens in both university level Arts-based and Science-based occupations, it is evident that in a few years time the Arts shortages will tend to disappear because of the substantial numbers of leavers that are expected. The situation on the Science side is entirely different. (The term science as used here covers both science and mathematics). On the Science side, the shortage is large, outputs small and severe obstacles to increasing outputs are already evident. Although the number of university places in Science should be increased and more overseas science scholarships should be solicited and offered, the number of qualified students that are needed may not be available. The anticipated additional numbers of leavers expected at Form IV, Form VI, and the University levels in the next few years do not provide an assurance that the required Science/Mathematics outputs will be achieved. In fact, as Table 4.5 shows, the Manpower Survey targets for Kenyanization in these occupations in the next few years may not be met and additional skilled non-citizens will need to be recruited to achieve the planned rate of economic growth and to replace those who die or retire.

4.85. To provide the Science/Mathematics education needed for the numbers involved will be a long-range, complex and expensive undertaking. It will require a switch in emphasis from producing large numbers of secondary school leavers to producing well-qualified leavers in the specific fields needed. Government will attach priority to the achievement of the following—

(i) better qualified science teachers;

(ii) better equipped science facilities;

(iii) larger total Science/Mathematicians enrolments;

(iv) improved curricula.;

(v) model Science/Mathematics schools associated with Science teacher training colleges and curricula improvement efforts;

(vi) better general student selection standards and experimentation with alternative standards; and

(vii) overseas scholarships closely restricted to required fields and to those that augment local efforts.

4.86. Looking ahead, it is possible to predict that the supply of manpower will catch up fairly rapidly in those occupations that are Arts-based. By the end of the 1970-74 period, the situation for lawyers, clerks and stenographers for instance, should be much improved because the number of qualified school leavers will have been substantial.

4.87. Beyond 1974, further expansions do not seem to be warranted in Arts training at the University and Higher School level for the purposes of economic development. Any excess output at this level will be expensive and, for the most part, will simply replace output from the Form IV level. If that happens, two persons will become dissatisfied: the University leaver who must accept a job not requiring a person with his education and the Form IV leaver he is replacing, who may not find a wage job at all.

Technical Assistance

4.88. Kenya acquires technical assistance from foreign governments and international organizations in order to remove short-term manpower constraints and thus enable Government to plan and execute the Development Plan programmes. More specifically, the need for technical assistance is established by shortfalls in the numbers of qualified citizens who are required for the high and middle level manpower posts in the public sector. These shortfalls are not all simply problems of inadequate numbers of individuals with appropriate formal education and training. Almost all high and middle level manpower posts require the possession of significant experience on the part of persons occupying these posts. Technical assistance is therefore also required in order to provide young professionals with opportunities to work with seasoned professionals in their own fields, enabling them to acquire the practical experience which is a prerequisite for assuming major responsibilities.

4.89. Currently, Kenya receives technical assistance from 18 friendly governments at a cost to these governments exceeding K£5 million per year. In addition, international organizations contribute nearly K£2 million per year, for a grand total of nearly K£7 million in aid given for this purpose.

4.90. Technical assistance personnel are classified into three groups: experts or advisers, Overseas Service Aid Scheme (O.S.A.S.) from the United Kingdom and volunteers. O.S.A.S. personnel numbered about one half of the total technical assistance in Kenya during the first quarter of 1969—as shown below:

	Number	Per cent
O.S.A.S.	1,461	51·5
Experts/Advisers	749	26·4
Volunteers	629	22·1
TOTAL	2,839	100·0

4.91. In terms of occupations, 53 per cent were in teaching and related occupations. 10.6 per cent were in agricultural occupations, 9.2 per cent in health services and 7 per cent in engineering occupations. Table 4.7 provides a summary of the sectoral distribution of technical assistance personnel in Kenya at the end of the first quarter of 1969.

SECTORAL DISTRIBUTION OF TECHNICAL ASSISTANCE PERSONNEL IN THE FIRST QUARTER OF 1969

Table 4.7

Sector	O.S.A.S. No.	O.S.A.S. Per cent of Total	Experts No.	Experts Per cent of Total	Volunteers No.	Volunteers Per cent of Total	Total	Per cent of all Technical Assistance
Education	956	65·4	227	30·3	321	51·0	1,504	53·0
Agriculture and Livestock	88	6·0	139	18·6	74	11·8	304	10·6
Health	129	8·8	93	12·4	39	6·2	261	9·2
Vocational and Management Training	13	0·9	40	5·3	16	2·5	69	2·4
Economic, Financial and Man-power Planning	13	0·9	26	3·5	—	—	39	1·4
Police, Legal and Defence	126	8·6	5	0·7	6	1·0	137	4·8
Fisheries	3	0·2	7	0·9	10	1·6	20	0·7
Wildlife and Tourism	14	1·0	4	0·5	—	—	18	0·6
Settlement	10	0·7	12	1·6	48	7·6	70	2·5
Power and Communications	3	0·2	3	0·4	1	0·2	7	0·2
Local Government	6	0·4	3	0·4	8	1·3	17	0·6
Mining and Geology	3	0·2	7	0·9	1	0·2	11	0·4
Forestry	8	0·5	10	1·3	3	0·5	21	0·8
Housing, Building and Physical planning	86	5·9	59	7·9	55	8·7	200	7·0
Commerce and Industry	3	0·2	16	2·1	—	—	19	0·7
Information and Broadcasting	—	—	8	1·1	—	—	8	0·3
Social Services	—	—	7	0·9	6	1·0	13	0·5
Co-operatives	—	—	78	10·4	—	—	78	2·7
Private Organizations	—	—	5	0·7	38	6·0	43	1·5
Unspecified	—	—	—	—	3	0·5	3	0·1
TOTAL	1,461	100·0	749	100·0	629	100·0	2,839	100·0

4.92. During the Plan period, Government intends to subject all new requests for technical assistance as well as existing technical assistance programmes to much closer scrutiny to ensure that—

(*a*) a qualified Kenya citizen is not available for the post proposed for technical assistance;

(*b*) technical assistance personnel are utilized in the most efficient manner;

(*c*) that the use of technical assistance personnel is consistent with the normal development and advancement of local officers.

4.93. The Government realizes that the achievement of true independence and self-sufficiency are not consistent with long-term reliance on non-citizens in key positions—especially in Government. As a consequence, the Government intends to make significant progress in reducing non-citizen involvement in the affairs of Government by the end of the Plan period.

Requirements for Technical Assistance, 1970-1974

4.94. Early in the Plan period, Kenya should reach a peak in terms of the number of technical assistance personnel required. Thereafter, largely attributable to massive teacher training efforts, there should be a significant decline in these requirements. By 1974 almost all expatriate teachers in secondary schools should be replaced by Kenyans with the important exceptions of science teachers and teachers of commercial and industrial arts subjects. However, at the University level there may be approximately a 30 per cent increase in the numbers of technical assistance personnel required. In terms of educational and training qualifications, Kenya should require fewer and fewer technical assistance personnel with "general" qualifications.

4.95. The trend in technical assistance requirements in other sectors will be similar to that projected for education, i.e., there will be a sharp decline in the number of general personnel required but some increase in the requirement for those who are very highly qualified in specific techniques. This trend will aggravate the problem of recruitment, for the type of personnel who will be increasingly required are also in short supply in donor countries.

Projections of Technical Assistance Requirements—1970-74

4.96. The programming of technical assistance for the Plan period, 1970-74 was significantly aided by a United Nations Technical Assistance Programming mission which visited the country for a period of several weeks in mid-1968. The team investigated the technical assistance requirements of public institutions, by sector, ministry and, where possibly, by project. The Report of this mission provided an important basis for Government's technical assistance programme.

4.97. The estimate of the total number of man years required in technical assistance indicates that during the first two years of the Plan period, technical assistance requirements will actually rise on an annual basis, but, beginning in 1972, these requirements will begin to show a decline.

4.98. The general trends in technical assistance requirements over the Plan period are:—

(a) *Education and Training.*—Education will continue to require more technical assistance than other Government activities. However, the kinds of technical assistance required will change over the Plan period. The current heavy reliance on non-citizen secondary school teachers will be considerably reduced. On the other hand, there will be an increased need for teachers with specialist qualifications in commerce and for vocational and technical training. There will also be a significant increase in the numbers of university teachers required.

(b) *Agriculture and Livestock.*—There will be increased recruitment of highly skilled technical personnel, agronomists, veterinarians, hydrologists, research scientists and agricultural economists. There will also be a need for assistants to perform at junior professional levels.

(c) *Health.*—As the Manpower Survey indicates, there will be a continuing shortage of doctors and medical specialists in every field. While every effort will be made to recruit medical personnel, it is not expected that sufficient numbers can be made available under technical assistance arrangements to meet Kenya's immediate needs.

(*d*) *Housing, Building and Physical Planning.*—Much of the current assistance is absorbed by the Ministry of Works. Technical assistance for this sector is highly specialized and recruitment is consequently relatively difficult. Additional assistance will be required, particularly of engineers and architects. Housing, which has absorbed little assistance in the past will have significantly increased requirements.

(*e*) *Police, Legal and Defence.*—Continued assistance will be primarily advisory and for training purposes.

(*f*) *Co-operatives.*—Almost all the technical assistance going to co-operatives is associated with the Nordic Co-operative Project. It is not expected that increased assistance will be required during the Plan period.

(*g*) *Settlement.*—Most of the personnel in the Ministry of Settlement are volunteers engaged in work of an agricultural extension nature on settlement schemes. The level of aid has been declining steadily with the maturation of the settlement programme. It is expected that there will be only a small number of advisory/operational personnel on settlement schemes by the end of the Plan period.

(*h*) *Vocational and Management Training.*—Much of the current technical assistance is in the form of personnel and equipment to vocation training schools and institutions such as the Kenya Polytechnic, the U.N.-assisted Management Training and Advisory Centre, and the National Youth Service. A high priority is being given to vocational training in the development plan and this will be reflected in increased needs for technical assistance, particularly for the new proposed National Industrial Vocational Training Centre.

(*i*) *General Rural Development.*—It is expected that the Rural Development Programme will require a significant amount of technical assistance. However, since many rural development projects are still in a stage of preparation, the nature and scale of total technical assistance requirements for these projects have yet to be determined.

Incomes Policy

4.99. Nearly all proposals in this Plan and most of Government's economic and social policy generally affect the levels of real income of the people as a whole or some section of them. Other things being equal, however, there is no reason to believe that every section of the population will benefit equally or that existing inequalities will be corrected. Yet the Government has undertaken both to ensure that the benefits of economic growth will be distributed as widely as possible and to reduce as far as possible such inequalities of income as already exist. In order to fulfil its declared pledges concerning the distribution of income, the Government has decided that, in future, it should intervene more directly in determining the levels of income received by different sections of the population.

4.100. A number of committees within the Government have already been working for some time to ensure that the implications on incomes of various economic policies are carefully weighed before they are put into effect. It has now been decided that it will also be necessary to amend the structure of other institutions required to take decisions that influence incomes in order to ensure that they operate within an overall co-ordinated incomes policy as defined in this section and amended from time to time by Government.

4.101. This incomes policy is an integral part of the Government's continuing efforts to implement Sessional Paper No. 10 of 1965 and the KANU Manifesto through the achievement of the highest possible rate of economic development. together with the most equitable distribution of the fruits of that development. The incomes policy is intended to ensure that while the economy moves ahead at the planned rate. new jobs will be created and that the incomes of no one section of the population lag behind that of others. It is intended to ensure a more effective use of human. financial and physical resources.

4.102. The main objectives may be stated as follows—

(i) to promote overall economic growth. The higher the total national income, the more income there will be to distribute among the country's citizens and the more social services the country will be able to afford;

(ii) to promote increased employment. The more jobs there are. the more widespread will be the benefits of development. This does not mean that the Government expects every citizen will be able to find a wage paid job—many will be self-employed, many will work in family firms or farms. But Government hopes to ensure that the structure of the economy created by development will not hinder the creation of new jobs in the widest sense. In the long run, a policy of building up a large, permanently employed work force in Kenyan industry and agriculture depends both on creating new jobs and on raising the productivity of those already employed. The availability of such a work force is a very substantial investment incentive, both to Kenyan and foreign investors. and the incomes policy will be implemented to encourage its formation. At the same time. the incomes policy will try to ensure that a large proportion of productivity gains will be used to increase employment opportunities;

(iii) to obtain a fair distribution of the national income. Higher employment and productivity are not only necessary for rapid development; they are also necessary if the benefits of this development are to be widely and fairly shared. Taxation and social welfare policies complement each other as parts of the Government's drive to help those with the lowest incomes. Taxation policy will reduce income inequalities by taxing the largest incomes most heavily; and social welfare policy will ensure that the very poor receive health. education and welfare benefits free or at reduced cost. This "social wage" is a significant part of real income. and the Government will increase it as fast as the growth of the economy and productivity allow. The nation will require those with above average incomes to pay relatively more of the social wage by using progressive income taxes, customs duties and excise taxes on luxuries; and it will ensure that private firms pay their full contribution. directly through taxation;

(iv) to hold down costs and prices. Both farmers and agricultural workers are well aware of the importance of world markets and world prices. Urban workers and salary earners must also appreciate the close connection between incomes and productivity on the one hand, and exports. imports and the national income on the other. If incomes rise faster than productivity, the balance of payments worsens in two ways: export income falls because Kenya's competitors can now produce and sell their products more easily, and imports rise as some of the higher incomes are spent on goods from outside Kenya. Kenya producers and farmers would lose both home and export markets; and employment and incomes could fall. No incomes policy can succeed unless it influences prices as well as incomes. No income receiver will accept a situation where his gains in money income are swallowed up by rising prices. The cost of living has been relatively stable and the Government will try to ensure that the situation continues not only to protect the poor and the unemployed. but also to ensure that all increases in money incomes are not eroded by increases in the prices on which incomes are spent.

Implementation of the Incomes Policy

4.103. In large measure. the implementation of the policy designed to achieve the objectives outlined above will depend on the effectiveness of machinery within the existing Government administration. This must ensure that the income implications of all new programmes are considered and co-ordinated. This role will be filled by the existing Costs and Prices Committee and the Industrial Protection Committee, both consisting of Government officials acting in an advisory capacity to Economic Ministers. The role of other institutions, notably the Industrial Court. will. however, be re-structured so that they may play a more effective part in this co-ordinated policy. The revised functions of the incomes policy machinery are discussed below.

Business Profits, Prices and Protection

4.104. Business and farm profits are an important source of income for the majority of citizens. The chance of making profits is the main incentive for people to put their money and effort into their farms and businesses.

Most are only able to earn only a small amount of profit as their enterprises are themselves only small but larger businesses are in a position to earn very substantial profits.

4.105. The level of net profits is affected by Government actions, as well as by wages, prices and productivity. The Government can protect industries by imposing quotas and tariffs on competing goods and by allowing industry's inputs to be imported at a reduced rate; it can give tax concessions and guarantees to investors and it can influence the supply of credit directly through statutory bodies and indirectly through monetary and exchange control policy. The Government will continue to use these instruments to encourage higher production both in existing and new enterprises, but will ensure that these policies do not lead to excessive profits for businesses or any undue loss of foreign exchange.

4.106. The Government will keep a constant watch on prices to guard against businessmen who "pass on" with higher prices increases in costs without making any attempt to absorb them. As many enterprises become more firmly established, it should be possible for the efficient businessman to reduce his prices. Although the possibilities of making price reductions will obviously vary between different enterprises, the Government will take a very hard look at any suggestions that prices should be raised in enterprises which are receiving Government protection or assistance. Government will also undertake reviews of industries and firms whose profits appear to be excessive, given the need for a reasonable rate of return on capital and a high rate of reinvestment of profits in many industries, and will pay particular attention to firms whose prices and profits are determined in a situation of monopoly or severely restricted competition.

4.107. The Government will also review its treatment of investment for tax purposes. At present the employment of capital is subsidized but employment of labour is not. This is a policy often found in labour shortage countries in Europe and North America, where it is designed to encourage employers to economize on scarce labour and spend more on (relatively) plentiful machinery and equipment. Although the Government is determined to stimulate further foreign and local investment, it is not clear that this investment allowance policy is the best way of achieving both greater investment and as much new employment as possible. The Government will therefore consider and decide in due course whether a practicable plan for an employment allowance, to complement or substitute the present investment allowance, can be introduced.

4.108. The main advisory body on which Government will rely to implement its policies with respect to profits and industrial protection is the newly established Industrial Protection Committee. Its terms of reference have been defined as shown on page 134.

policy will ensure that the very poor receive health, education and welfare benefits free or at reduced cost. This "social wage" is a significant part of real income, and the Government will increase it as fast as the growth of the economy and productivity allow. The nation will require those with above average incomes to pay relatively more of the social wage by using progressive income taxes, customs duties and excise taxes on luxuries; and it will ensure that private firms pay their full contribution, directly through taxation;

(iv) to hold down costs and prices. Both farmers and agricultural workers are well aware of the importance of world markets and world prices. Urban workers and salary earners must also appreciate the close connection between incomes and productivity on the one hand, and exports, imports and the national income on the other. If incomes rise faster than productivity, the balance of payments worsens in two ways: export income falls because Kenya's competitors can now produce and sell their products more easily, and imports rise as some of the higher incomes are spent on goods from outside Kenya. Kenya producers and farmers would lose both home and export markets; and employment and incomes could fall. No incomes policy can succeed unless it influences prices as well as incomes. No income receiver will accept a situation where his gains in money income are swallowed up by rising prices. The cost of living has been relatively stable and the Government will try to ensure that the situation continues not only to protect the poor and the unemployed, but also to ensure that all increases in money incomes are not eroded by increases in the prices on which incomes are spent.

Implementation of the Incomes Policy

4.103. In large measure, the implementation of the policy designed to achieve the objectives outlined above will depend on the effectiveness of machinery within the existing Government administration. This must ensure that the income implications of all new programmes are considered and co-ordinated. This role will be filled by the existing Costs and Prices Committee and the Industrial Protection Committee, both consisting of Government officials acting in an advisory capacity to Economic Ministers. The role of other institutions, notably the Industrial Court, will, however, be re-structured so that they may play a more effective part in this co-ordinated policy. The revised functions of the incomes policy machinery are discussed below.

Business Profits, Prices and Protection

4.104. Business and farm profits are an important source of income for the majority of citizens. The chance of making profits is the main incentive for people to put their money and effort into their farms and businesses.

Most are only able to earn only a small amount of profit as their enterprises are themselves only small but larger businesses are in a position to earn very substantial profits.

4.105. The level of net profits is affected by Government actions, as well as by wages. prices and productivity. The Government can protect industries by imposing quotas and tariffs on competing goods and by allowing industry's inputs to be imported at a reduced rate; it can give tax concessions and guarantees to investors and it can influence the supply of credit directly through statutory bodies and indirectly through monetary and exchange control policy. The Government will continue to use these instruments to encourage higher production both in existing and new enterprises, but will ensure that these policies do not lead to excessive profits for businesses or any undue loss of foreign exchange.

4.106. The Government will keep a constant watch on prices to guard against businessmen who "pass on" with higher prices increases in costs without making any attempt to absorb them. As many enterprises become more firmly established. it should be possible for the efficient businessman to reduce his prices. Although the possibilities of making price reductions will obviously vary between different enterprises. the Government will take a very hard look at any suggestions that prices should be raised in enterprises which are receiving Government protection or assistance. Government will also undertake reviews of industries and firms whose profits appear to be excessive. given the need for a reasonable rate of return on capital and a high rate of reinvestment of profits in many industries, and will pay particular attention to firms whose prices and profits are determined in a situation of monopoly or severely restricted competition.

4.107. The Government will also review its treatment of investment for tax purposes. At present the employment of capital is subsidized but employment of labour is not. This is a policy often found in labour shortage countries in Europe and North America. where it is designed to encourage employers to economize on scarce labour and spend more on (relatively) plentiful machinery and equipment. Although the Government is determined to stimulate further foreign and local investment, it is not clear that this investment allowance policy is the best way of achieving both greater investment and as much new employment as possible. The Government will therefore consider and decide in due course whether a practicable plan for an employment allowance, to complement or substitute the present investment allowance, can be introduced.

4.108. The main advisory body on which Government will rely to implement its policies with respect to profits and industrial protection is the newly established Industrial Protection Committee. Its terms of reference have been defined as shown on page 134.

(i) to advise on all aspects of industrial protection affecting the development and structure of industry, and more particularly on customs tariffs, refund of customs duty, import licensing, industrial licensing, subsidies, certificate of Approved Status, and Letters of Intent for the establishment of new industries which may subsequently require protection;

(ii) to review periodically policies and measures affecting the protection and development of specific industries, and to recommend such measures and policies, including Government participation in industry and location of industry policies, as may lead to sound and balanced industrial development, taking into account not only the needs of industry, but also the effect of protective measures on other producers and manufacturers; on wage earners and on consumers.

Consumer Prices

4.109. Incomes policy cannot be divorced from policies which affect the cost of living, particularly of those in the lower and middle income groups. Too often, in some countries, prices and incomes policies have failed because they were meant to hold down only wages while ignoring prices and profits. Increases in the cost of living can quickly erode reasonable increases in incomes and thus create pressure for larger incomes, which businessmen may in turn give as the reason for even higher prices.

4.110. In the wage earners index of consumer prices, which covers those earning less than Sh. 350 per month, over 67 per cent is dependent on food prices. These food prices thus very largely determine both the cost of living of lower income wage earners and the incomes of farmers who produce the food. Restraining the cost of living implies restraint on non-wage rural incomes but in return, the unorganized small farmer has the right to expect similar restraint on the part of organized urban and rural wage earners, whose wages also influence farm costs.

4.111. The Government accepts that it has a responsibility to control directly and indirectly the prices of essential commodities. The existing price control system derived from the Price Control Act will be strengthened where this is found to be necessary. The Government also acknowledges the need for accurate and up-to-date information on consumer expenditure and the cost of living, and is therefore conducting a household budget survey in various parts of the country as part of its incomes policy plans. One of the results of this survey will be an improvement in the accuracy and coverage of official cost of living statistics.

4.112. The main advisory body for the control of food prices will be the Costs and Prices Committee and its Agricultural Costs and Prices Sub-Committee which are discussed in more detail below.

Incomes from Employment

4.113. In spite of an increase of over 25 per cent in Gross Domestic Product (in real terms) since 1964, there has been an increase of only 16 per cent in the number of people in wage-paid jobs. This trend will continue, almost inevitably, throughout this Plan period and although it is confidently expected that wage jobs will be created at a percentage rate faster than the percentage growth of the working population, it will not be possible to absorb the whole of the absolute increases into wage employment. The male work force will increase by an average of some 83,500 a year net; many of these must be absorbed in the rural areas, but many will certainly seek employment in the towns. Incomes policy must ensure that the rise in wages does not hinder the creation of more jobs.

4.114. The post-Independence labour legislation was designed to take advantage of the highly developed machinery for collective bargaining that already existed. The Trade Disputes Act and the establishment of C.O.T.U., resulted in a reduction in production losses through strikes. But that law, with the machinery for enforcing negotiation and arbitration, was neither designed to implement a national incomes policy nor to enforce national economic objectives. It is proposed, therefore, to amend the Act to provide the Government as the major employer, with more effective control over wage determination in the national interest. The intention is not to destroy the machineries that have secured good industrial relations, but to ensure the continued success of their operation within the framework of national policies and objectives which will give overriding importance to the general public welfare.

4.115. *Public Sector.*—In addition, the Government also proposes to obtain a firmer grip over public sector salaries and wages, including Central Government, Local Government and Statutory Authorities. At present, Government is able to control the level of wages and salaries paid by Central Government but when a Local Authority has ample revenue or the inclination and is able to pay higher wages without resort to Central Government, there is little the Central Government can do, whatever the indirect effects may be. Similarly, Statutory Authorities have in practice been able to determine wages and salaries in relative isolation.

4.116. The Government will take the responsibility for determining the wages and salaries paid throughout the whole of the public sector, including Local Authorities and Statutory Corporations and of co-ordinating wage and salary payments so as to remove present inconsistencies and to prevent uneconomic salary competition among different employees within the public sector. A need exists for Central Government control over the conditions of service in Local Authorities and Statutory Boards and Corporations, similar to that now exercised by the Public Service Commission and Teachers Service Commission over the Civil Service. While the conditions of service for the three employers need not be identical, they must obviously be closely co-ordinated. The Government proposes to establish a Local Government Service Commission and a Statutory Authorities Service Commission, which will work closely with the Public Service Commission. This will ensure that terms of service and fringe benefits as well as salaries are properly controlled. Wages of employees of the East African Community will be subject to the control of the East African Industrial Court set up under the East African Treaty but through guidelines given to the Court co-ordinated with national wages policy.

4.117. In addition, all administrative, professional and managerial employees as well as designated essential service employees in the public sector will be prohibited from taking strike action. The Industrial Court will have no jurisdiction to hear disputes concerning public officers in these categories: the existing machinery for negotiation will continue in being.

4.118. The Government also proposes to reduce further the present salary differentials in the Public Service. Many of these stem from colonial times when it was felt that high salaries and generous fringe benefits were necessary to attract certain grades of staff to Kenya. Now that these jobs are filled by Kenyans, the Government will review Public Service salaries which are many times higher than those of ordinary wage earners, let alone small farmers or the unemployed. In practice, this must mean a strict limit on increases in the salary scales in the public services until the process of "levelling upwards" has allowed the incomes of other sections of society to catch up from the present low levels.

4.119. *Private Sector.*—As far as private sector wage contracts are concerned, the Government proposes to exercise greater control through a widening of the powers of the Industrial Court.

4.120. The Industrial Court in recent years has done much valuable work in promoting and maintaining good industrial relations. However, its membership and staff must now be modified and strengthened, and its role reshaped so that the Court may make a fuller contribution to development.

4.121. The members of the Court (other than the President of the Court, who should continue to be a qualified advocate) will, after the necessary amendment to the Trade Disputes Act, not be representatives of employees and employers, but persons of independent standing, who will consider the public interest before all else, and who are experienced in economic, financial, commercial, and industrial matters. As the Court will have to retain the respect and co-operation of employers and unions alike, it is essential, in order to secure the authority and effectiveness of the Court, that certain classes of persons be disqualified from membership (on similar lines to the Public Service Commision), namely, Members of Parliament and Provincial Councils and Local Authorities, holders of office in political parties, members of trade unions and employers' organizations, and public officers. The members of the Court (other than the President of the Court, who should be appointed by the Chief Justice, as at present), will be appointed by the Minister for Labour in agreement with the Ministers for Finance, Economic Planning and Development, and Commerce and Industry. They will hold office for three years at a time, and be removable from office only for inability or misbehaviour upon recommendation of an independent tribunal.

4.122. The Court will be given a small professional secretariat to undertake detailed investigations of wage claims and the related aspects of productivity. profits and prices where these are an issue. The Government will have the right to give evidence to the Court on cases of particular importance to the national economy.

4.123. All wage agreements, including those of Wages Councils will, in future, be registered with and be subject to review by the Industrial Court and will not go into effect until approved by it. The Court will have 30 days in which to consider each agreement. During this time the Court will use its powers, if it feels it necessary, to question representatives of all parties concerned in the agreement, and to call for relevant company accounts, so that it may decide whether, on the *prima facie* evidence, the settlement conforms with the incomes policy guidelines as provided to it. This preliminary investigation will be undertaken chiefly by the Court secretariat. If after the 30 days, the Court makes no recommendation, the agreement will come into force immediately. If, however, the Court considers the agreement requires further investigation, it will have a further 60 days in which to call evidence, from official Government witnesses as well as from employers' and workers' representatives, and make recommendations.

4.124. The Industrial Court will consider all benefits in cash or in kind which are involved in any wage agreement. Thus, it will not merely consider basic wage rates but will take into account all supplementary payments and benefits—overtime payments, such as shift differentials, piecework payments, long service increments, travel allowances, and most important of all, housing and housing allowances. There would, for instance, be little point in the Court reducing a wage rate increase from, say, Sh. 30 to Sh. 10 a month if, as a result, the company concerned agreed to pay its workers an extra Sh. 20 house allowance, or "bonus". Equally, the Government could not allow a situation where the Industrial Court recommended a Sh. 20 wage increase and the employer reduced a house allowance or other benefits to eliminate the pay rise. These fringe benefits represent both a very important part of income to many workers and a substantial cost to employers, and wage assessments must therefore take them fully into account.

4.125. In considering wage claims or agreements, the Industrial Court will operate on the basis of "guidelines". At the beginning of each year, the Costs and Prices Committee will advise Economic Ministers on the form of a directive to the Industrial Court which will constitute the guidelines until subsequently amended. In particular, the Government will reserve the right to issue, if and when it feels it necessary, instructions regarding a "nationa maximum", which would be expressed as a percentage and would represen the maximum amount by which wages would, in general, be permitted to rise In arriving at this figure the Government would take full account of increase in national output, the cost of living, population growth, the need to expan employment and devote resources to investment rather than consumption and other relevant factors.

4.126. In considering any wage claim or agreement, the Court will firs investigate whether the agreement is likely to raise the wage bill (includin fringe benefits) per employee for those covered by the claim or agreemen by more than an amount indicated by the guidelines.

4.127. Secondly, if the Court is satisfied that the average wage bill will not increase by more than a reasonable amount, it will consider whethe this claim or agreement is likely, directly or indirectly;

(i) to increase unemployment or prevent increases in employment which would otherwise have taken place; or

(ii) to hinder export sales by the industry or firm affected by the wage claim or agreement.

The Court will in general need very strong evidence for reducing or refusing a wage claim or agreement on these grounds, since the Government considers that most workers have a right to expect regular gains in real income.

4.128. Thirdly, the Court will see whether there is any scope for re-adjustment of wage and benefit increases, so that the lowest paid workers may receive more in accordance with Government policy. Thus it would be acceptable if, within the ceiling, some (better paid) workers received less while other, lower-paid, workers receive more. The Court will bear in mind that the same percentage increase in the wages of all workers increases the cash advantage of the best paid.

4.129. These guidelines for wage agreements will require a substantial change in attitudes and arguments on the part of employees and employers alike. In particular, it will no longer be a valid argument just that the cost of living has rise nby so much, or that profits in a particular firm are excessive, or that anomalies exist between different groups of workers (except in so fa The Court will not become involved in discussions about whether a worke in one part of Kenya should receive more than one doing a similar jo in another part of Kenya or in a different factory, since this type of clai leads to confusion and "leapfrogging" by various groups. If profits ar considered excessive in a particular firm or industry, the Court may refe these to the Government while cost of living considerations will be take into account in fixing guidelines together with other considerations suc as the rate of increase of national production and overall employment trends

Minimum Wages

4.130. Minimum wages are necessary to avoid exploitation of labour. On the other hand, if minimum wages are raised too rapidly, the effect must be to exclude growing numbers of people from employment. Moreover, minimum wages in the rural areas are a major item of cost to the small farmers who have benefited least from the expansion of the economy since Independence, though the position has improved over the last year or two. Minimum wages, too, must be established and adjusted with overriding consideration being given to the national interest. Agreements on minimum wages recommended by Wages Councils are voluntary agreements and as such will be subject to review and approval by the Industrial Court. National statutory minimum wages, whether determined for the rural or the urban areas, will in future be fixed directly by Government and the responsibilities of the Minimum Wages Advisory Boards in this area will cease. This change will also involve an amendment to the Trades Disputes Act.

Rural Incomes

4.131. Less than ten per cent of the working population are registered trade union members. The much greater number of rural people, who are relatively worse off to start with, are not organized so as to be able to bargain effectively for their share of the national income. In order to maintain the relative economic position of the rural areas and to encourage agricultural and rural development, the Government must represent the interests of the rural population and exercise a positive influence in favour of rural incomes. It acknowledges that the income of the small farmer is essentially determined by prices—the prices he pays for labour, seed, fertilizer and equipment, and the prices he receives for his crops. The Government establishes prices for a number of crops and subsidises certain farming costs e.g. fertilizers and research in the interest of agricultural development. The Government has already set up a sub-committee on Agricultural Costs and Prices designed to produce a co-ordinated policy for those costs and prices which materially affect the farmers' incomes while at the same time protecting the interests of consumers.

4.132. The Government must apply the same principles of incomes policy to all sections of the community. The same basic guidelines will be used in considering the incomes of farmers, and the "lowest pay" guideline must influence Government policy towards the rural areas, since incomes from farming are generally considerably lower than those from wage employment. The Government must, however, also consider the "recruitment" and "export sales" guidelines. No one could claim that Kenya is short of small farmers, and while those who raise their productivity by sustained hard work and intelligent use of new methods will always be needed and rewarded, this is not a justification for large increases in incomes of the lazy or unambitious farmer. Kenya will rely heavily on agricultural exports for many years to come; the Government has little control over world market prices for many

Kenya products, and it may in some cases be necessary for the prices of Kenya exports to be reduced. This again emphasizes the need for the small farmer to maintain and increase his income progressively by raising his productivity and reducing his costs of production. The Government will continue to expand its extension and advisory services which help him achieve this, and will also intensify its programme of rural development in areas such as water, electricity, housing, education, health and roads, both to increase the "social wage" in rural areas and to raise the farmers' productivity and cash incomes. Chapter 6 of this Plan describes the co-ordinated programme of rural development which must be seen as part of this policy. It will also be seen from later chapters of this Plan that Government proposes to give greater emphasis to the improvement of rural communications to facilitate marketing and also to the improvement of marketing organizations so that the farmers receive a higher proportion of the final value of their produce.

Incomes from Property, Interest and Dividends

4.133. Rent income earned from property in Kenya is estimated to be in the region of K£5 million per year. Property rents, which are an important cost to many enterprises as well as to many of the poorest workers in towns, have risen rapidly in recent years and the Government has already introduced rent controls to protect those in the lower and middle income groups. It is unrealistic to expect restraint from workers if rents are high and rising, and the Government will expand its low-cost housing programmes as fast as possible, while keeping rent control policies and enforcement under close review through the Costs and Prices Committee.

Interest and Dividends

4.134. Kenya has recognized the part which private enterprise can play in development, and the contributions which it has already made. There is, however, a considerable difference between those who invest their money productively to increase national income and employment, and those who live off the dividends and untaxed capital gains which they receive from shares, land or property. The second category of investors are often in practice holding up development by misusing scarce capital, while receiving a much higher return than is available to the small saver in Kenya, or almost any investors in many other countries. Also, a large part of this income leaves the country—either directly or because members of these upper income groups—citizens and non-citizens alike—spend a much higher proportion—of their incomes on imports than do the lowest-paid and small farmers. While calling for restraint from wage-earners, the Government will also take such measures as are necessary to control these other types of income, through the Costs and Prices and Industrial Protection Committees (acting on profits), and through general taxation policy.

CHAPTER 5—TARGETS AND FINANCE

General Assumptions

This chapter presents an overall picture of the projected growth rates and of the total supply and use of resources during the Plan period 1970-1974.

5.2. The planned expansion of investment, output, public services and private consumption may appear ambitious given the scarcity of domestic financial resources and the shortage of trained and educated manpower and of managerial talent at the beginning of the Plan period. It is therefore necessary to stress that these targets can only be achieved if certain basic assumptions are fulfilled. Within the framework of the basic policies summarized in Chapter 1, the following main assumptions should be emphasized as a prerequisite for reaching the Plan targets—

(*a*) an expanding world economy without any serious recessions or new restrictions on trade flows from developing countries;

(*b*) the continuation and strengthening of the economic co-operation within the East African Community, resulting in better co-ordination and greater diversification of manufacturing industry in East Africa;

(*c*) an expanding demand and new markets for Kenya goods outside East Africa;

(*d*) a timely inflow of adequate private and public technical and financial assistance from donor countries and donor organizations.

5.3. If any of these general assumptions should fail to materialize, this would affect the whole economy and would place serious constraints on the execution of the Plan. There are also, of course, other assumptions, most of them relating to individual sectors of the economy, which must be fulfilled if all targets are to be achieved. These assumptions are specified in the following chapters.

Production and Investment

5.4. *Production.*—For the period 1967-1974* the overall growth target has been set at 6.7 per cent per annum as an average, allowing for some variation in the rate of increase from year to year. This is a higher target than in the last Development Plan, reflecting the Government's belief that it is possible to accelerate the growth rate.

5.5. The growth targets for the main sectors of the economy are shown in Table 5.1 below. In the total economy, monetary and non-monetary *agriculture* will still be the most important source of income (30 per cent of the total) and agriculture is also expected to contribute most to the growth of the domestic product (over 20 per cent) during the Plan period.

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* The period 1967-74 has been used for projection purposes since 1967 is the last year for which there are firm accounting figures which are unlikely to be revised.

Table 5.1

GROSS DOMESTIC PRODUCT AT FACTOR COST, 1967–1974

K£ million in 1967 prices

	1967	1968	1974	Annual increase per cent		Percentage distribution of GDP			Contribution to growth of GDP 1968 to 1974 per cent
	K£ million			From 1967 to 1974	From 1968 to 1974	1967	1968	1974	
A. OUTSIDE MONETARY ECONOMY—									
Agriculture	85·19	88·11	108·34	3·5	3·5	20·9	20·3	16·9	9·7
Other	21·99	22·91	28·56	3·8	3·8	5·5	5·3	4·4	2·7
TOTAL NON-MONETARY PRODUCT	107·18	111·02	136·90	3·6	3·6	26·4	25·6	21·3	12·4
B. MONETARY ECONOMY—									
1. *Enterprises and Non-Profit Institutions:*									
Agriculture	54·52	58·77	81·98	6·0	5·6	13·4	13·6	12·8	11·1
Forestry	2·60	2·85	4·54	8·3	8·0	0·6	0·7	0·7	0·8
Fishing	1·18	1·27	2·01	7·9	7·9	0·3	0·3	0·3	0·4
Mining and Quarrying	2·04	2·14	3·19	6·6	6·9	0·5	0·5	0·5	0·5
Manufacturing and Repairing	45·19	48·53	82·08	8·9	9·2	11·1	11·2	12·8	16·0
Building and Construction	12·39	12·82	22·36	8·8	9·7	3·0	3·0	3·5	4·6
Electricity and Water	6·32	6·76	10·83	8·0	8·2	1·6	1·6	1·7	1·9
Transport, Storage and Communications	33·44	35·81	62·72	9·4	9·8	8·2	8·3	9·8	12·9
Wholesale and Retail Trade	40·15	44·53	64·47	7·0	6·4	9·9	10·3	10·0	9·5
Banking, Insurance, etc.	15·14	16·40	27·50	8·9	9·0	3·7	3·8	4·3	5·3
Ownership of Dwellings	14·33	14·76	18·86	4·0	4·2	3·5	3·4	2·9	2·0
Other Services	15·36	16·90	28·08	9·0	8·8	3·8	3·9	4·4	5·3
TOTAL ENTERPRISES	242·66	261·54	408·62	7·7	7·7	59·6	60·4	63·6	70·4
2. *Private Households (Domestic Services)*	3·73	3·81	5·61	6·0	6·6	0·9	0·9	0·9	0·9
3. *General Government*	53·12	56·75	91·04	8·0	8·2	13·1	13·1	14·2	16·4
TOTAL MONETARY PRODUCT (1+2+3)	299·51	322·10	505·27	7·8	7·8	73·6	74·4	78·7	87·6
TOTAL GDP AT FACTOR COST (A+B)	406·69	433·12	642·17	6·7	6·8	100·0	100·0	100·0	100·0

5.6. In the published national accounts, *the monetary economy* accounts for about three quarters of the total Gross Domestic Product and this share is expected to increase slowly over the Plan period. The Monetary Gross Domestic Product is projected to rise by an average of 7.8 per cent per annum reaching over K£500 million by 1974 (measured at 1967 prices). Trade and transport will contribute over one quarter to the growth, manufacturing and agriculture being the other most important contributing industries besides "General Government". The projected composition of the growth in the Monetary Gross Domestic Product during the Plan period can be summarized as follows:—

	per cent
Agriculture	13
Manufacturing	18
Trade and Transport	26
General Government	19
Other Sectors	24
TOTAL ...	100

5.7. While non-monetary output is expected to increase by 3.5 per cent per annum, *monetary agricultural output* should increase by an average of 6 per cent. This is a very high growth rate considering the severe marketing constraints on important traditional cash crops like coffee, pyrethrum and sisal, and in view of the vulnerability of this sector to variations in weather conditions. It is assumed that crop production will increase at a significantly higher rate than the livestock sector and that the revenue from crops in 1974 will contribute 70 per cent of total farm revenue as against 65 per cent in 1967 (in the monetary sector). A very substantial expansion of output is planned for a number of crops, such as maize, rice, sugar, tea and pineapple, where marketing prospects are brighter, although in some cases a decline in prices is anticipated. In the livestock sector, cattle and dairy produce account for nearly 90 per cent of output. Because of greater constraints on the supply side it is not possible to expand output in this sector as fast as crop production and the projected growth rate has here been set at about 4.5 per cent per annum as against 7 per cent for crops.

5.8. Value added in *manufacturing industry* should grow at an average rate of about 9 per cent per annum, corresponding roughly to a doubling of output in eight years. This sector already accounts for 18 per cent of the Monetary Gross Domestic Product and the planned expansion reflects the emphasis which the Government is placing on rapid industrialization. A detailed analysis of the growth potential by sub-sectors indicates that it should be possible to achieve an even faster growth if some of the present constraints can be removed. However, because the expansion of manufacturing industry is largely dependent on private investment, it is difficult to make a firm forecast for this sector. It is assumed that a substantial part of the growth will come from an expansion of the capacity of existing enterprises financed through the ploughing back of profits.

5.9. A particularly rapid expansion is foreseen in the textile, pulp and paper, leather and rubber, and sugar and canning industries. Together, these industries are expected to account for over 30 per cent of the growth in manufacturing output and employment during the Plan period. Other food processing, and beverages and tobacco which are expected to grow at slightly below the average rate for the manufacturing sector should account for about 15 to 20 per cent of the growth, and metal products and machinery and equipment for another 15 to 20 per cent. Although a few larger projects are planned with Government assistance, industrial expansion is expected to be spread over a wide range of products with no particular industry dominating the picture.

5.10. The growth in *trade and transport* is primarily dependent upon the rate of expansion in the commodity-producing sectors and to a lesser extent also on the development of tourism and other service industries. A rapid increase in output and in the volume of exports of agricultural commodities will place particularly heavy demand on the transport system and unless sufficient capacity is provided for, the latter may easily become a constraint on development. Over two thirds of the revenue generated in the transport sector accrue to public corporations. Most important are the railways and the ports whose contribution to the domestic product is expected to increase by about 7 and 10 per cent respectively. Private transport is expected to grow at an even higher rate than public transport, i.e. by 10-11 per cent per annum. The bulk of private transport consists of road traffic which again is heavily dependent upon Government policy, since the Government is responsible for the expansion of the road network as well as for the upkeep and improvement of existing roads.

5.11. *Wholesale and retail trade* are expected to grow at a slightly lower rate than the Monetary Gross Domestic Product.

5.12. The *General Government* sector should expand by at least 8 per cent per year, thus contributing an increasing share to the monetary product. Besides the general public administration, the greatest contribution will come from education, health and agricultural services.

5.13. Among the *other industries,* there is a great potential for expansion both in forestry and fishing. Exploitation of the forests will depend largely on the plans for pulp and paper production described in Chapter 10 but also on the possibilities of using more wood, for instance, in the building and construction industry. In the fisheries industry, it should be possible to double the catch of sea fish over a period of six to seven years. A great potential also exists for expanding the lake fisheries, particularly in Lake Rudolf, and for developing the exports to neighbouring countries. The building and construction industry is expected to increase at a rate well above the average growth of the economy. The contribution of this sector is dependent upon the level of investment which should rise by more than one half during the Plan period. Two thirds of the contribution are expected to come from the private sector. Since much of building and construction is labour intensive, a rapid expansion in this sector will have a significant employment effect.

5.14. *Investment.*—The investment programme necessary to support the output targets is in part worked out in great detail. This applies in particular to the Central Government programme and to the expenditure of the East African Community. Other parts of the investment programme are based on specific assumptions, without concrete investment projects being worked out at this stage or being made known to the Government. This would be true for sectors such as wholesale and retail trade, banking and insurance and a large part of the manufacturing industry. These sectors are dominated by private investment and both the level and direction of capital expenditure may here differ from the assumed pattern, particularly towards the end of the Plan period.

5.15. Total gross fixed capital formation is expected to increase at an average rate of around 9 per cent up to 1974, implying an increase in the overall incremental capital output ratio. Public investment which accounts for about one third of the total should grow at a slightly higher rate than private investment. The increase will be particularly strong in the Central Government sector on the basis of the planned development expenditure. Table 5.2 shows the estimated public and private gross fixed capital formation by industry during the Plan period.

5.16. Agriculture, manufacturing and transport (excluding the road programme) will absorb nearly one half of total investments. In the *agricultural* industry investments will rise at a lower rate than the average. Direct public investments in this industry are very small and may not exceed K£1 million by 1974. On the other hand, there will be a very substantial increase in public recurrent expenditure on agriculture, reflecting the experience that factors other than capital expenditure are important to the expansion of of agricultural production. In *manufacturing,* about one third of the estimated gross investment will consist of depreciation of assets financed out of company funds. Of new investments, a large share will be in the form of extension of existing enterprises, again largely financed through the ploughing back of profits. Altogether, it is expected that the gross capital formation in manufacturing and repairing will be of the order of K£100 million during the period 1970-1974. Over one third of investments in the *transport industry* are undertaken by East African corporations and are thus the joint responsibility of the three member states. Most important here are the planned investments in the railways. The bulk of the projected investments in the transport industry, not counting the construction of roads, will however be on private account. The purchase of buses, trucks and lorries and other commercial vehicles will

Table 5.2 *K£ million in* 1967 *prices*

	1967	1970	1974	Total 1970–1974
A. Outside Monetary Economy—Traditional Dwellings	7·5	8·9	11·0	49·5
B. Monetary Economy—Enterprises				
1. *Private Sector:*				
Agriculture	10·2	12·5	16·4	71·9
Forestry	0·4	0·4	0·4	2·0
Mining and Quarrying	0·2	0·4	1·1	4·1
Manufacturing and Repairing ..	13·5	15·3	22·5	95·5
Building and Construction ..	3·7	4·9	7·2	30·1
Electricity and Water	5·0	3·9	5·5	23·4
Transport, Storage and Communications	8·1	11·4	20·9	75·3
Wholesale and Retail Trade ..	2·7	3·4	5·5	20·8
Banking, Insurance and Real Estate	0·3	0·7	1·1	4·5
Dwellings	2·8	3·0	5·3	20·4
Other Services	4·8	6·6	10·0	40·9
Total Private Enterprises..	51·7	62·5	95·9	388·9
2. *Public Sector:*				
Agriculture	0·7	0·8	0·9	4·1
Forestry	0·4	0·6	0·8	3·7
Fisheries	—	0·3	0·3	1·3
Mining and Quarrying	—	0·1	—	0·2
Manufacturing and Repairing ..	1·4	0·5	1·5	4·5
Building and Construction ..	0·6	0·8	1·0	4·4
Electricity and Water	1·2	1·8	4·9	19·1
Transport, Storage and Communications	8·6	10·5	10·1	55·5
Wholesale and Retail Trade ..	0·3	0·4	0·6	2·5
Dwellings	2·3	4·2	8·1	32·9
Other Services	—	0·1	0·1	0·6
Total Public Enterprises ..	15·5	20·0	28·3	128·8
Total Enterprises	67·3	82·5	124·2	517·7
C. Monetary Economy—General Government—				
Public Administration	1·8	2·7	2·5	13·0
Health	1·3	2·3	2·5	12·5
Education	1·8	2·1	3·0	16·0
Agricultural Services	1·5	1·6	1·4	7·6
Other Services	6·4	10·7	16·1	66·3
Total General Government	12·8	19·4	25·5	115·5
Total Public..	28·3	39·4	53·8	244·2
Grand Total	87·6	110·8	160·7	682·6

represent a heavy expenditure with a high foreign exchange component. The Government road programme which may absorb as much as K£40 million (in 1967 prices) during the Plan period represents the most important field of investment under *General Government* which altogether accounts for 17 per cent of total investments.

5.17. Roughly one half of the total gross fixed capital formation will consist of machinery and equipment, most of which will have to be imported. Since there is always an import element also in building and construction the foreign exchange component of the investment programme may be well over 50 per cent.

5.18. A summary of planned public development expenditure is given in the following section and the individual sector programmes will be analyzed further in the sectoral chapters.

The Public Sector Programme

5.19. *Central Government Development Expenditure.*—An important share of public investment falls under the heading of Central Government development expenditure. During the Plan period, this share, together with the capital element in the recurrent budget, is expected to exceed one half of total public fixed capital formation. Through the development budget, the Central Government has therefore a considerable influence on the composition of public investment. The development budget also includes a number of expenditure items which are not classified as investment in the national accounts but which are of equal importance to the development of the economy, not least the extension of credit from the Central Government for the purpose of financing private investment.

5.20. While some of the investment projections in the Plan are to be regarded more as "forecasts" than as fixed Plan targets, the development budget of the Central Government represents a firm commitment to implement a large number of carefully selected development projects. Table 5.3 below gives a summary of the planned development expenditure by fiscal year. The table shows that the estimated Central Government development expenditure for the five-year period 1969/70-1973/74 amounts to over K£192 million, increasing from K£32 million in 1969/70 to K£44 million in 1973/74 (reckoned in 1969 prices). The figure for 1969/70 is somewhat higher than the corresponding figure in the printed Development Estimates for the current fiscal year. The reason for this is that the latter contain only "token" provisions for a number of projects where the financial requirements had not been fully assessed at the time the Development Estimates were published.

5.21. In drawing up the development budget the Government has primarily focused its attention on projects which do not readily lend themselves to private financing but which are essential to the development of the economy and the welfare of the people. This is reflected in the emphasis in the development budget on economic and social "infrastructure". Basic services, that is,

Table 5.3

PUBLIC SECTOR DEVELOPMENT EXPENDITURE

K£ thousands

	1969/70	1970/71	1971/72	1972/73	1973/74	Total	Total Central Govt. only
AGRICULTURE—							
Agricultural Development	2,952	3,241	3,008	3,654	4,765	17,620	17,620
Land Settlement and Transfer	2,702	1,818	2,006	1,303	798	8,627	8,627
Land Adjudication	1,049	1,306	1,321	1,295	1,324	6,295	6,295
Livestock Development	813	886	853	938	1,036	4,526	4,526
Irrigation	535	696	476	509	310	2,526	2,526
TOTAL	8,051	7,947	7,664	7,699	8,233	39,594	39,594
NATURAL RESOURCES—							
Forestry	1,063	1,172	1,186	1,255	1,255	5,931	5,931
Fisheries	308	300	210	271	267	1,356	1,356
Mines and Geology	130	112	30	30	30	332	332
TOTAL	1,501	1,584	1,426	1,556	1,552	7,619	7,619
TOURISM—							
Tourism	395	693	793	453	351	2,685	2,685
Game Department	162	154	154	148	139	757	645
National Parks	224	133	131	116	112	716	200
TOTAL	781	980	1,078	717	602	4,158	3,530
MANUFACTURING, COMMERCE AND CONSTRUCTION—							
Manufacturing	756	1,084	1,420	1,416	1,468	6,144	6,144
Commerce	526	685	942	1,198	1,350	4,701	4,701
National Construction Corporation Limited	112	118	75	83	90	478	478
TOTAL	1,394	1,887	2,437	2,697	2,908	11,323	11,323

Table 5.3—(Contd.)

PUBLIC SECTOR DEVELOPMENT EXPENDITURE

K£ thousands

	1969/70	1970/71	1971/72	1972/73	1973/74	Total	Total Central Govt. only
SOCIAL SERVICES—							
Education	2,073	3,759	4,114	3,620	3,010	16,576	14,134
Housing	2,260	2,470	2,870	3,320	3,970	14,890	14,890
Health	2,354	2,980	3,100	3,127	3,202	14,763	14,763
Local Authorities	300	600	900	1,200	1,500	4,500	4,500
Information and Broadcasting	303	319	411	388	377	1,798	1,798
National Social Security Fund	500	500	—	—	—	1,000	—
Social Programmes (1)	201	179	168	186	165	899	899
Cultural Programmes (2)	27	106	232	83	76	524	524
Labour	—	292	73	—	—	365	365
TOTAL	8,018	11,205	11,868	11,924	12,300	55,315	51,873
RURAL DEVELOPMENT—							
Rural Development	250	250	500	500	1,000	2,500	2,500
TOTAL	250	250	500	500	1,000	2,500	2,500
BASIC SERVICES—							
Roads	8,080	8,931	7,699	8,792	9,538	43,040	43,040
East African Railways†	4,142	4,691	4,468	4,401	3,590	21,292	—
East African Harbours†	1,200	2,215	2,770	2,765	2,625	11,575	—
Government Buildings	1,365	1,500	1,600	1,750	1,940	8,155	8,155
Water Supplies	855	1,280	1,580	1,895	2,350	7,960	7,960
Airports	486	715	1,360	2,340	2,525	7,426	7,426
Posts and Telecommunications†	1,374	1,714	1,333	1,145	1,241	6,807	—
East African Airways†	1,375	1,390	1,415	1,265	855	6,300	—
Government Press	137	—	—	—	60	197	197
TOTAL	19,014	22,436	22,225	24,353	24,724	112,752	66,778

Table 5.3—(Contd.)

PUBLIC SECTOR DEVELOPMENT EXPENDITURE

K£ thousands

	1969/70	1970/71	1971/72	1972/73	1973/74	Total	Total Central Govt. only
INTERNAL SECURITY AND DEFENCE—							
Police	300	916	706	744	505	3,171	3,171
Defence	344	300	300	300	300	1,544	1,544
Prisons	291	244	234	236	236	1,241	1,241
Judiciary	76	105	105	105	109	500	500
Other (3)	78	73	60	6	10	227	227
TOTAL	1,089	1,638	1,405	1,391	1,160	6,683	6,683
FINANCIAL INSTITUTIONS							
East African Development Bank	600	600	—	—	—	1,200	1,200
National Bank of Kenya Ltd.	300	200	75	—	—	575	575
Kenya National Assurance Company Ltd.	100	100	100	100	100	500	500
Workers Investment Trust	150	100	—	—	—	250	250
State Reinsurance Corporation of Kenya	100	100	—	—	—	200	200
TOTAL	1,250	1,100	175	100	100	2,725	2,725
TOTAL PUBLIC SECTOR EXPENDITURE*	41,348	49,027	48,778	50,937	52,579	242,669	192,625
Less Expenditure by public bodies not financed by the Central Government	9,368	11,183	10,618	10,072	8,803	50,044	—
Equals CENTRAL GOVERNMENT DEVELOPMENT EXPENDITURE	31,980	37,844	38,160	40,865	43,776	192,625	192,625

(1) Community Development, Social Welfare, Adult Education and National Youth Service.
(2) Library Services, Museums, Archives, Theatre and Sports.
(3) Immigration, Approved Schools and Remand Homes, Probation Services and Government Chemist.
†Converted from calendar year figures.
*Excluding expenditure by Local Authorities and some other public bodies not financed by the Central Government. Total estimated development expenditure by Local Authorities is given in Chapter 7. All development expenditure (including that financed from non-Government sources) by the E.A. Corporations, University College and some other public bodies is included. For the remaining public bodies, expenditure from non-Government sources is excluded, but such expenditure, if any, will not be large in relation to the expenditure financed from Government sources.

transport, water supplies, Government buildings and airports will absorb more than one third of the planned development expenditure. Transport alone (roads and airports) will account for over K£50 million. If also the development expenditure of the East African corporations on railways, harbours and airways is taken into account the total expenditure on transport will amount to K£90 million. The sums allocated to water supplies are substantially higher than in the past. Social services are allocated more than one-quarter of the total expenditure. Housing, health, education and loans to local authorities (through the Local Government Loans Authority) account for the bulk of the expenditure under this heading. Agriculture accounts for about 20 per cent of the total expenditure. In assessing the importance that the Government attaches to this sector, the shift from "settlement" to "development", together with the importance of recurrent expenditure on agriculture in promoting development, should be borne in mind.

5.22. *Other Public Development Expenditure.*—Besides Central Government development expenditure, there will be other public expenditure on development projects by local authorities, East African corporations and statutory boards. Part of the expenditure of these other public bodies will be financed through transfers from the Central Government and is included in the Central Government development budget. The balance will be financed from their own resources and from local and overseas borrowing, and represents an addition to the Central Government development expenditure.

5.23. Apart from the East African Community and the larger municipalities and a few other public institutions, such as the University College, the public spending agencies outside the Central Government have not been able to furnish detailed programmes for their development expenditure as far ahead as 1974. The Kenyan share of the planned development expenditure by the East African Community has been estimated at about K£46 million for the period 1969/70-1973/74. Well over one half of this amount will be financed from external sources and the balance will be covered by the East African corporations. The development programmes of these corporations are explained in detail in Chapter 14. Local Government development expenditure for the five year period has been estimated at about K£40 million, of which the City of Nairobi accounts for over K£25 million and other municipalities for K£11 million. The balance of about K£4 million falls on County Councils and Urban and Area Councils. The estimated development expenditure by local authorities outside the municipalities does not cover primary education, health services and roads for the period 1970/71-1973/74 since the Central Government has decided to take direct responsibility for these three principal services. Chapter 7 which describes the development programmes of local authorities gives a detailed breakdown of local government expenditure by economic sectors.

5.24. As far as the statutory boards are concerned, it is uncertain to what extent they will be able to raise funds for development purposes in addition to transfers from the Central Government. To some extent, the investment activities of the statutory boards can be compared with those of the private sector. In the investment projections, a total of K£16 million has been included as gross fixed capital formation by stautory boards but their total development expenditure will be a good deal higher than this. The programmes of the more important boards, including the University College, are described in the respective sector chapters.

The Current Balance of Payments

5.25. *Commodity Exports.*—The total export volume is expected to increase by 6 per cent per year between 1967 and 1974. For some commodities, a price decline is foreseen but this may be compensated for by an increase in other export prices. On balance, it has been considered a realistic assumption that the total export value will increase in step with the export volume. No radical changes are expected in the ratio between exports of agricultural commodities and exports of manufactures during the Plan period. However, if the average export prices for agricultural commodities fall, manufactured goods may account for a higher share of the actual export earnings towards the end of the Plan period. In 1967, the latter group (excluding processed food products and minerals) accounted for 38 per cent of total commodity exports.

5.26. Important changes are foreseen in the composition of *agricultural exports.* Coffee will still be the most important single export commodity but every effort will be made to develop exports of other products where the marketing constraints are less severe. The second most important agricultural export commodity is tea which it is estimated will yield over K£16 million in foreign exchange by 1974, corresponding to more than three quarters of the expected earnings from coffee. A new feature in this Plan is the intention to develop Kenya into a major exporter of maize. Towards the end of the Plan period, the proceeds from maize exports are expected to be over twice as high as the earnings from pyrethrum extract and over four times the earnings from sisal.

5.27. While the volume of crop exports may increase by nearly 7 per cent per year as an average, the exports of processed agricultural products are expected to grow by little over 3 per cent per year. The growth in the latter group can mainly be ascribed to a very strong expansion in the exports of canned fruit and vegetables. Exports of dairy produce and wattle products are expected to decline. Altogether, the total export volume of primary and processed agricultural products is expected to grow by 6 per cent per year.

5.28. Exports of *mining products* will contribute very little if anything to the expected increase in foreign exchange earnings.

COMMODITY EXPORTS BY PRODUCING INDUSTRY, 1967 AND 1974

Table 5.4 *K£ thousands in 1967 prices (f.o.b.)*

	Export Values £'000		Share of Total per cent	
	1967	1974	1967	1974
AGRICULTURAL PRIMARY PRODUCTS—				
Coffee	15,674	20,000	19·7	16·7
Tea	7,870	15,900	9·9	13·2
Maize	1,424	7,600	1·8	6·3
Wheat	1,608	1,650	2·0	1·4
Rice	176	570	0·2	0·5
Sisal	2,081	1,750	2·6	1·5
Cotton	629	880	0·8	0·7
Other Agricultural Products	4,898	6,600	6·1	5·5
1. Total Agricultural Products	34,360	54,950	43·1	45·8
PROCESSED AGRICULTURAL PRODUCTS—				
Meat Products	3,416	4,000	4·3	3·3
Dairy Products	2,167	1,000	2·7	0·8
Canned Fruits and Vegetables	1,167	3,150	1·5	2·6
Pyrethrum Products	2,918	3,650	3·7	3·0
Wattle Products	863	700	1·1	0·6
Animal and Vegetable Oils and Fats ..	391	700	0·5	0·6
Other Processed Agricultural Products..	1,542	2,200	1·9	1·8
2. Total Processed Agricultural Products	12,464	15,400	15·6	12·8
3. Total Primary and Processed Agricultural Products (1+2)	46,824	70,350	58·7	58·6
4. Forestry, Hunting and Fishing ..	672	750	0·8	0·6
5. Minerals	1,727	1,750	2·2	1·5
OTHER MANUFACTURED PRODUCTS—				
Beverages and Tobacco	957	920	1·2	0·8
Textiles	2,343	3,020	2·9	2·5
Clothing and Footwear	2,123	4,200	2·7	3·5
Wood Products	1,366	1,950	1·7	1·6
Paper and Printing	2,231	3,110	2·8	2·6
Leather Products	322	1,050	0·4	0·9
Rubber Products	337	2,200	0·4	1·8
Chemical Products	3,632	8,800	4·6	7·3
Petroleum Products	11,715	14,500	14·7	12·1
Other Mineral Products	1,981	3,200	2·5	2·7
Metal Products and Machinery ..	2,961	3,250	3·7	2·7
Miscellaneous Products	496	950	0·6	0·8
6. Total "Other" Manufactured Products	30,464	47,150	38·3	39·3
7. Total All Manufactured Products (2+6)	42,928	62,550	53·9	52·1
8. Total Exports in 1967 prices (1+4+5+7)	79,687	120,000	100·0	100·0
9. Total Exports in "Current Prices"[1]	79,687	120,000		
10. Balance of payments adjustments ..	−663	−1,000		
11. Total exports on a balance of payments basis	79,024	119,000		

[1] It has been assumed here that a price fall for some commodities will be counterbalanced by increased export prices for other commodities so that the total export value in "current prices" will not be significantly different from exports in "constant prices".

5.29. *Manufactured products*, other than processed agricultural products, already account for nearly two fifths of the total exports of goods. It cannot be expected, however, that the rapid industrial expansion which is foreseen during the Plan period will result in an equally rapid growth in exports. The increase in manufacturing output, spread over a great number of industries, will to a large extent be directed towards import substitution, as reflected in the import projections. The largest contribution to export earnings is expected from petroleum products and chemicals which together should account for 50 per cent of the exports of manufactures. Following the planned expansion of the rubber tyre and tanning industries, there should be a particularly rapid increase in the exports of rubber and leather products. Exports of clothing may also grow at a rate well above the average. For the rest, the exports will be spread over a wide range of commodities. The total volume of exports of manufactures is expected to increase by between 6 and 7 per cent and in value terms the growth may be even higher.

Table 5.4 shows a detailed breakdown of total commodity exports in 1967 and corresponding estimates for 1974.

5.30. *Commodity imports*.—The volume of commodity imports is expected to increase by 7.5 per cent per year over the period 1967-1974, that is, more or less in line with the growth of the Monetary Gross Domestic Product. However, since a slight upward trend in import prices is anticipated, averaging about 1 per cent per year, the import bill is expected to rise by about 8.5 per cent per year. In spite of an overall upward price trend, imports increased by only 3 per cent in current prices from 1967 to 1968, largely because of lower imports of capital goods. The projections for the Plan period therefore imply an average annual growth in imports between 1968 and 1974 of more than 9 per cent in "current prices".

5.31. Most of the increase in imports will fall on raw materials and inputs for the producing sectors—notably crude petroleum, chemicals, base metals—and on capital goods. Due to import substitution, imports of finished textiles, food and other consumer goods are expected to grow much more slowly. Imports of sugar may virtually disappear in the course of the Plan period and this should compensate for much of the increase in imports of other food items. Table 5.5 gives a breakdown of total commodity imports in 1967 and corresponding estimates for 1974.

5.32 If the import structure changes in the anticipated direction, this will imply that imports of commodities which carry a relatively heavy import duty will grow more slowly than commodity groups which are less heavily taxed. If duties remain unchanged*, Government revenue from this source may therefore rise more slowly than the average increase in revenue necessary to finance the Development Plan and the recurrent cost in the public sector.

* If the average incidence of customs duties for some 50 commodity groups in 1968 is applied to the corresponding import groups as projected for 1974 the overall incidence goes down from 19.2 per cent in 1968 to 17.6 per cent in 1974.

COMMODITY IMPORTS, 1967 AND 1974

Table 5.5 — *K£ million in* 1967 *prices* (*c.i.f.*)

	1967	1974	Annual Increase per cent
Crude petroleum	9·5	18·8	10·3
Processed food products	5·7	6·2	1·4
Textiles and clothing	12·6	13·4	0·9
Chemicals	10·5	21·2	10·6
Base metals	6·9	13·5	10·0
Metal products	5·2	10·5	10·5
Transport equipment	20·8	39·5	9·6
Other machinery and equipment	18·1	35·1	9·9
Other imports	27·2	34·8	3·6
Total imports in 1967 prices	116·5	193·0	7·5
Assumed price changes [1]	—	13·9	..
TOTAL IMPORTS IN "CURRENT PRICES" [2] ..	116·5	206·9	8·5

1 A price increase of 1 per cent per year has been assumed.
2 Imports on a commodity basis and on a balance of payments basis were identical in 1967. No balance of payments adjustment has been assumed for 1974.

5.33. *Terms of Trade.*—A summary of the above export and import projections presents the following picture:—

AVERAGE ANNUAL CHANGE 1967–1974 IN PER CENT

	Volume	Value	Price
Exports	6·0	6·0	—
Imports	7·5	8·5	1·0

The projections thus imply an expected deterioration in terms of trade of about 1 per cent per year or about 7 per cent over the period 1967-1974 as a whole.

5.34. These price assumptions are very important in estimating the foreign exchange requirements for the Plan period. With the expected development of the export and import volume and the assumed worsening in terms of trade, the accumulated trade deficit over the five year period 1970-1974 will be about K£40 million larger than it would be if prices remained unchanged and other assumptions were not altered. If the outlook on which the balance of payments forecasts are based is too pessimistic, it means that the foreign exchange requirements in the Plan are over-estimated. However, past experience has shown that terms of trade can deteriorate quickly and unexpectedly and it would be imprudent planning not to take account of a possible loss of foreign exchange due to price changes.

5.35. *Exports and Imports of Services.*—The importance of exports of services is a characteristic feature of Kenya's balance of payments. In 1968 the revenue from services corresponded to 60 per cent of the proceeds from exports of goods and by 1974 this ratio may be over 70 per cent. The three dominating categories of service exports are Freight and Insurance, Other Transportation and Foreign Travel. The latter category includes revenue from the tourist trade and has already become the most important item on the service balance. As will appear from Table 5.6 below, total exports of services are expected to increase by nearly 8 per cent per year between 1967 and 1974. Earnings from foreign travel, the bulk of which is revenue from tourists, are expected to increase by as much as 14 per cent per year and to reach a total figure of K£37 million in 1974, as against K£15 million in 1967 and K£16-17 million in 1968. This rather dramatic increase in tourist income can only be achieved if the programme for the development of tourism in Kenya as described in Chapter 16 is carried through successfully.

5.36. Imports of services are also expected to increase by nearly 8 per cent per year but the absolute level of expenditure is much lower than the revenue from exports of services and will in 1974 probably correspond to less than 20 per cent of the level of commodity imports.

Table 5.6 — EXPORTS AND IMPORTS OF SERVICES — *K£ million*

	1967	1968	1974	Annual increase 1967–74 per cent
EXPORTS OF SERVICES—				
Freight and insurance	9·6	10·0	15·0	6·6
Other transportation	16·0	14·9	23·5	5·6
Foreign travel	14·7	16·4	37·0	14·1
Other services	10·3	9·3	10·6	0·4
TOTAL EXPORTS OF SERVICES	50·6	50·6	86·1	7·9
IMPORTS OF SERVICES—				
Freight and insurance and other transportation	7·9	8·9	12·4	6·6
Foreign travel	7·0	7·6	9·5	4·5
Other services	8·2	12·8	17·1	11·1
TOTAL IMPORTS OF SERVICES	23·1	29·3	39·0	7·8
BALANCE OF SERVICES	27·5	21·3	47·1	—

5.37. Although exports and imports of services are expected to grow at roughly the same rate, the absolute gap between the two will increase rapidly. According to the projections in Table 5.6 the surplus on the service balance will thus increase from K£21 million in 1968 to K£47 million in 1974. It should be borne in mind, however, that the service balance is vulnerable to fluctuations and the projections for this part of the balance of payments must be regarded as less firm than the corresponding projections for the trade balance.

5.38. *The Current Balance of Payments.*—In the past, the deficit on the trade balance has either wholly or to a very large extent been cancelled out by a surplus on the service balance. As described in the preceding section, it is assumed that the latter will continue to show a surplus throughout the Plan period but this will not be sufficient to prevent a growing deficit on the overall current balance. The export/import projections result in an accumulated trade deficit of about K£350 million over the five-year period 1970-1974. Over one half of this amount should be offset by a net surplus on other current transactions, leaving on overall accumulated deficit on the current balance of payments of K£195 million.

5.39. The deficit on the balance of goods and services, which was of the order of K£10 million in 1967 and K£15 million in 1968, will according to the projections in the preceding sections of this chapter increase steadily to about K£40 million in 1974 as a result of the heavy development programme. To this must be added a net outflow of factor payments which will bring the overall deficit on the current balance close to K£50 million by 1974. Table 5.7 gives a summary of the current balance of payments estimates.

CURRENT BALANCE OF PAYMENTS

Table 5.7 *K£ million*

	1967	1968	1974	Total 1970–1974
1. Commodity exports (1)	79·3	84·2	119·0	532·0
2. Commodity imports	116·6	120·2	206·9	883·0
3. Trade balance (1–2)	−37·3	−36·0	−87·9	−351·0
4. Exports of services	50·6	50·6	86·1	366·0
5. Imports of services	23·1	29·3	39·0	176·0
6. Balance of services (4–5)	27·5	21·3	47·1	190·0
7. Balance of goods and services (3+6) ..	−9·7	−14·7	−40·8	−161·0
8. Net factor payments	−8·6	−4·3	−8·3	−34·0
9. Current balance (2)	−18·3	−19·0	−49·2	−195·0

(1) including non-monetary gold.
(2) excluding transfers and net General Government interest.

5.40. The balance of goods and services indicates the amount of capital inflow which it is planned to use as a basis for financing domestic investment in Kenya over and above the investment which can be financed through domestic savings. In addition to this amount, foreign exchange is needed to finance the net outflow of factor payments which together with the balance of goods and services make up the current balance of payments. Furthermore, there is a need to finance debt repayments and other expenditure included in the capital balance. In the section on the financing of the Plan later in this chapter, an attempt has been made to assess the total foreign exchange requirements during the Plan period.

Total Supply and Use of Resources

5.41. Earlier in this chapter, it was emphasized that the development of the terms of trade is of crucial importance to the balance of payments position and the foreign exchange requirements. Another factor of great importance to the financing of the investment programme is the development of the savings ratio, that is, total public and private savings in relation to the national (or domestic) product. Total capital formation can only be financed from two sources: savings in Kenya and an inflow of capital from abroad (that is, other people's savings). The lower the savings ratio is in Kenya, the greater is the need for capital from abroad if the investment programme is to be carried out in full.

5.42. Although the statistical basis is weak, there seems to have been an upward trend in the overall savings ratio in Kenya between 1964 and 1967 but also great variations from year to year. The Government has assumed that the upward trend in the overall propensity to save will continue through the Plan period but has considered it realistic to reckon with a relatively modest increase only. Again, if this assumption turns out to be on the pessimistic side, the implication is that the foreign exchange requirements in the Plan are overestimated.

5.43. Table 5.8 summarizes the projections which have been discussed earlier in this chapter and presents an overall picture of the supply and use of resources during the period 1970-1974, together with corresponding estimates for 1967 which is the last year for which there are firm accounting figures not likely to be revised. It should be stressed that all figures in this table are in 1967 prices which implies that all growth rates can be taken to reflect *volume changes*. It follows from this that the balance of payments items in Table 5.8 differ from the figures in the preceding section (Table 5.7) since the latter were estimated in "current prices", the difference being explained by the assumed deterioration in the terms of trade. By the method used, this price assumption does not affect the growth rates (volume changes) in Table 5.8 but is only of consequence for the foreign exchange requirements. However, if more radical changes should occur in the export/import prices, this may well influence disposable income and the propensity to invest and to save to such an extent that the growth pattern will be different.

5.44. With the assumptions underlying Table 5.8, total resources for domestic use will grow at a slightly higher rate than the Gross Domestic Product, reflecting an increasing deficit on the balance of goods and services. Investments are expected to grow at a faster rate than total resources, and

Table 5.8 *K£ million in* 1967 *prices*

	1967	1974	Five-year period 1970–1974		Average annual increase 1967–74 per cent
			Total	Yearly average	
Available Resources—					
1. GDP at factor cost	407	642	2,825	565	6·7
Of which:					
Non-monetary	107	137	640	128	3·6
Monetary	300	505	2;185	437	7·8
2. Indirect taxes minus subsidies ..	33	57	245	49	8·0
3. GDP at market prices (1+2) ..	440	699	3,070	614	6·8
4. Import surplus (goods and services) [1]	10	27	120	24	—
5. Total resources available for domestic investment and consumption (3+4)	450	726	3,190	638	7·1
6. Gross domestic investment	94	172	730	146	9·0
Of which:					
Fixed investment	87	160	679	136	9·1
Changes in stocks	7	12	51	10	8·4
7. Total consumption	356	554	2,460	492	6·5
Of which:					
Public consumption	64	114	487	97	8·5
Private consumption	292	440	1,973	395	6·1
8. Total use of resources (6+7) ..	450	726	3,190	638	7·1
9. Gross domestic savings (6–4) ..	84	145	610	122	8·1
10. Factor payments to abroad ..	9	8	34	7	—
11. Gross national savings (9–10) ..	76	137	576	115	8·8
12. Gross domestic savings as per cent of GDP	19·2	20·7	19·9	19·9	
13. Gross national savings as per cent of GNP	17·6	19·8	19·0	19·0	
14. Gross domestic investment as per cent of GDP	21·4	24·6	23·8	23·8	

[1] The difference between these figures and the corresponding balance of goods and services in table 5.7 above is accounted for by the difference between "constant" and "current" prices.

total consumption at a somewhat slower pace. In line with the Government's objectives for the public sector, public consumption will increase more rapidly than private consumption. Still, private consumption per head should grow by about 3 per cent per year during the Plan period. This would mean that private consumption per head in 1974 would be 20-25 per cent higher than in 1967.

5.45 It should be borne in mind that the annual growth rates indicated in the last column of Table 5.8 are average rates over a seven-year period. It is unavoidable that there will be some variation in the growth from year to year, both because of the heavy reliance on agricultural output and because of Kenya's dependence on overseas markets.

5.46. Reckoned in 1967 prices, total capital formation during the Plan period may exceed total savings by an average of nearly K£25 million per year. However, as explained earlier it is anticipated that the actual shortfall in domestic financing in current prices may be even larger.

The Financing of the Development Plan

5.47. Since Kenya has such a low average income level and a corresponding shortage of private capital which can be devoted to investment, the Government must exercise strict economies in expanding public current expenditure in order that it may channel a fair share of the available financial resources into investment. This would have been easier if foreign donor organizations and donor countries as a whole had not had such an inflexible attitude to the development needs of low income countries. Thus, external financing is usually limited to the foreign exchange component of an investment project leaving it to the recipient country to cover the local cost share. Equally important is the refusal by most donors to support recurrent costs which often represent a heavy burden on the recipient country. In many cases recurrent expenditure, for instance on education, health or road maintenance, may contribute more to development than many types of investment expenditure favoured by donors. The distinction between "development expenditure" and recurrent expenditure—if the latter is taken to mean "non-development expenditure"—can therefore be very misleading.

5.48. *Overall Foreign Exchange Requirements.*—According to the balance of payments estimates on current account, the net foreign exchange requirements during the five-year period 1970-1974 amount to K£195 million. As explained earlier in this chapter the gross inflow will have to be somewhat larger to cover amortization of loans and General Government interest payments.

5.49. Thus, debt repayments on existing public and private debt are alone estimated at K£79 million during the period 1970-1974. In addition, there will be some amortization of new debt, probably of the order of K£11 million. Provision will also have to be made for some K£20 million in Government interest payments which are not normally included in the current balance. On the other hand, there should be a net inflow of transfer payments estimated at K£35 million approximately. Altogether, the estimated net foreign exchange requirements over and above what is needed to cover the deficit on the current balance of payments add up to K£75 million for the Plan period as a whole. Further details of the estimated outflow of foreign exchange are given in the tabulation below:—

	K£ million
Deficit on the current balance of payments ...	195
Amortization of existing debt	79
of which	
Central Government	25
Local Government	1
E.A. Community and other public institutions	8
Private sector	45
Amortization of new debt	11
General Government interest payments	20
Total finance requirements	305
Minus net transfer receipts	35
Net additional finance required	270

5.50. This estimate makes no provision for changes in the currency reserves. At the moment Kenya's foreign exchange reserves are sufficient to cover six month's imports which is a relatively comfortable reserve position by international standards, although a developing country is more exposed to rapid fluctuations in the external economy than most industrialized countries. With the prospect of being able to strengthen the exchange reserves under the new international SDR (Special Drawing Rights) arrangement, Kenya should, during the Plan period, be able to maintain its reserves at a level corresponding to about four months' imports in 1974.

5.51. A possible distribution of the capital inflow which is needed to cover the estimated finance requirement is set out below:—

	K£ million
Kenya Government	95
Local Government	10
E.A. Community (Kenya share)	25
Private Sector	140
Total capital inflow	270

The Kenya Government share will in its entirety be used to finance public development expenditure. The same applies to borrowing by Local Government and the E.A. Community.

5.52. According to the financing pattern above, about one half of the financing will fall on the private sector. An important share of the private capital should, however, be available inside the country in the form of profits earned by foreign-owned companies and not repatriated.

5.53. *Financing of Central Government Expenditure.*—During recent years, there has been some under-spending in relation to the Development Estimates as voted by Parliament (for details *see* Chapter 2). This tendency to under-spend makes it difficult to forecast precisely the amounts which will actually be spent by the Central Government on investment and on other development expenditure during the Plan period. Although the Government will make every effort to improve the planning and implementation of development projects it would be unrealistic to assume that the actual spending—at least over the next 2-3 years—will correspond exactly to the Development Estimates.

5.54. In order to reach the Plan target for investment and output, it is important not to place constraints on public spending for projects which are of importance to the economy. One way of alleviating the constraints is to set the development expenditure ceiling for each ministry a little higher than the actual spending which can reasonably be expected. When allocations are kept down to conform to what is thought to be the likely spending level, experience indicates that, for various reasons, there is still some underspending and the Government is more likely to fall short of Plan targets than when a higher ceiling is set for expenditure. However, it is assumed that during the Plan period, ministries will gradually reduce their shortfalls and that actual expenditure will achieve a relatively larger proportion of the sum provided towards the end of the Plan period (compared with the beginning of the period) than the phasing of the expenditure in Table 5.3 above indicates.

5.55. Table 5.3 gives a summary of the development programmes of the various ministries as these programmes stand at the beginning of the Plan period. Although some shortfalls may be anticipated for a variety of reasons, it is difficult, if not impossible, to indicate at this stage in which sectors there may be some underspending and what the total amount of this underspending will be. For the purpose of drawing up a realistic financing plan, it has been assumed that the total Central Government development expenditure during the Plan period will not fall below K£180 million and that the expenditure from 1970/71 onwards will grow by an increasing amount each year, for instance as follows:—

1969/70	1970/71	1971/72	1972/73	1973/74	Total
29·0	33·5	36·0	39·0	42·5	180·0

If we regard this as a *minimum* financing requirement, a possible financing pattern could be as follows:—

	K£ million
Surplus on recurrent budget	20
Borrowing from the National Social Security Fund	30
Other local borrowing (excluding Treasury Bills and borrowing from the Central Bank) ...	10
Central Bank money and Treasury Bills	25
Total domestic financing	85
Grants and loans from abroad	95
Total ...	180

5.56. In view of the rapid expansion of the monetary sector envisaged in the Plan, it is quite possible that the Central Government might be able to raise a higher amount through local borrowing from private credit institutions than included in the above tabulation. However, the Central Government also has a responsibility towards other borrowers, public as well as private, who may not be able to expand their activities in comformity with the projections in the Plan if they do not have access to borrowing on the open market. Thus, it has been assumed that the Local Government sector alone may have to borrow at least K£10 million on the local market.

5.57. However, the Central Government also has the power to borrow from the Central Bank*. It would seem warranted to make use of this financing opportunity, as long as there are no signs of any inflationary pressure, in order to accelerate economic expansion. The actual pattern of financing will of course have to be decided on a yearly basis and adapted to the overall monetary and financial situation at the time the budget is under preparation.

5.58. Unless there is a further deterioration in the terms of trade, the inflow of foreign exchange ought not to be a serious constraint, except so far as the lending terms are concerned. Considering the low national income per head in Kenya and the prospect of an increasing burden of external debt servicing in the long run, it would be an advantage from a long-term point of view if the major share of the inflow of public capital from abroad consisted of grants and "soft" loans.

5.59 In order to reach Plan targets, Central Government recurrent expenditure will also have to be increased substantially. The financing burden on the Central Government will be even heavier after the taking over from County

* A total borrowing from the Central Bank in excess of K£12 million will require an amendment to the existing Central Bank Act of 1966.

Councils of the responsibility for the major services. In projecting recurrent expenditure, particular emphasis has been placed on social and economic services where the expenditure is planned to increase in the order of 10 per cent per year as against 4-5 per cent for administrative services. There will be a particularly rapid expansion in expenditure on education and health, on agriculture and on road maintenance. The tabulation below gives a summary of the projected recurrent expenditure for the total five-year period 1969/70-1973/74 compared with the corresponding expenditure in the preceding five-year period.

PROJECTED GROWTH OF GOVERNMENT RECURRENT EXPENDITURE

Table 5.9 *K£ million*

	Actual Expenditure 1964/65–1968/69	Projected Expenditure 1969/70–1973/74
General Administration	103	130
Community Services	16	40
Social Services	66	180
Economic Services	48	70
Recurrent Financial Obligations ..	92	100
Unallocable Expenditure..	14	20
TOTAL	340	540

The total recurrent expenditure in the five year period of the Plan will be 58 per cent higher than in the previous five years. This is equivalent to an average rate of growth over five years of 9.7 per cent per year. On the basis of this estimate, the *total* expenditure by the Central Government (development and recurrent expenditure)—taking account of a possible shortfall of development expenditure—will be approximately K£720 million during the Plan period.

5.60. As indicated above, it is expected that the external contribution to the financing of the Central Government development expenditure will be of the order of K£95 million which is roughly one half of the minimum financing requirements under this heading. If K£95 million is compared with the estimated *total* expenditure by the Central Government, the planned external financing amounts to 13 per cent of the total.

5.61. It should be emphasized that all development and recurrent expenditure estimates have been worked out in constant prices. As suggested earlier, there may well be some increase in import prices during the Plan period and, independently of this price trend, there may also be some increase in prices or wages and salaries in other fields. If so, this will inflate Government expenditure further, in which case Government revenue will have to be increased correspondingly (although this will in part be automatic). Particularly if import prices go up, it may be necessary to seek additional external financing to compensate for this, at least to some extent.

5.62. *General Assessment of the Financing Situation.*—During 1968 and 1969, Kenya has been able to strengthen her foreign exchange position. By end-1969, the foreign exchange reserves were sufficient to cover about six months' imports at the prevailing import level. This relatively comfortable foreign exchange position—from a short-term point of view—was matched by internal financial stability. The overall price level has been remarkably stable, there has been little inflationary pressure, and the over-subscription on Government short-term borrowing in recent months is an indication that the liquidity in the economy is sufficiently high to resist some pressure in the short-run.

5.63. However, this situation may change very quickly if care is not taken to gear the internal fiscal and monetary policy to the external balance of payments. Between 1961 and 1965, Kenya had a surplus on her current account. By 1968, the balance had turned into a deficit of about K£20 million. According to the projections in the new five-year Plan, this deficit will grow at a rapid rate and may reach a level of K£50 million by 1974, as a result of the heavy investment programme which has been planned in all sectors of the economy.

5.64. Unless Kenya succeeds in obtaining the necessary foreign exchange on current and capital account to match the rather ambitious development programme, the reserve position—and the internal liquidity situation—may also change rapidly if the necessary steps are not taken in advance to curb imports and to secure a sufficient supply of internal credit. This would be a highly undesirable—and unnecessary—situation but unfortunately not entirely under Government control. If the country is to succeed in its development efforts, due consideration must be given to the general balance of payments situation and the internal financial stability. Kenya has received considerable assistance from industrialized countries during the past five-year period and this has encouraged the Government to draw up an even more expansive Development Plan for the next five years. This ambitious programme can of course not be achieved without mobilizing domestic resources to the fullest possible extent and without receiving full support of the people. But with the heavy dependence on foreign trade and external financing the country also needs the support of trade partners and international organizations.

CHAPTER 6—RURAL DEVELOPMENT

The objective of national development is the social and economic transformation of all the people. Since Independence, Kenya has consistently followed a policy of promoting nation-wide development. Towns have grown and new industries have been attracted to them, but equally, small-holder farming has advanced, land transfers have been undertaken on a very large scale, and services have been greatly extended in the rural areas. Thus rural development has comprised a key element in Government action but will in this Plan represent the basic development strategy. Such a strategy is based upon the fact that the land and the people are the prime assets of Kenya. The rural areas comprise well over 98 per cent of the land area of Kenya and contain more than 90 per cent of the population. As such, they contribute the greater part of the present and potential productivity of the nation.

6.2. The completion of a new road, the building of a new factory, or the provision of safe water supplies in the rural areas is a part of rural development since these physical projects enhance the health and productivity of the rural people. However, it is important to recognize that national development is achieved for and by the people. One of the purposes of the Development Plan is to indicate the path the people may take to achieve better living conditions through higher productivity. improved transportation facilities, new marketing opportunities, safe water supplies, better housing, more jobs and co-ordinated services throughout the rural areas.

6.3. In the very few years since Independence, many major projects in agriculture, education, health and construction have been planned and executed in the rural areas. As compared to 1964, secondary school enrolment has more than tripled, there are over 300,000 more pupils attending primary schools, over 4,000 kilometres of major road construction has been completed and many hundreds of minor road projects have been carried out, a mass literacy campaign has been extended to every district, the value of agricultural cash production has risen by almost 50 per cent and free medical service for children and out-patients has been established.

6.4. The strategy of rural development as the route of national development is firmly established. In agriculture most areas have achieved self-sufficiency. indeed it has been surpassed in many areas in respect of domestic food requirements. Kenya has thus become self-supporting in most crops and its produce is entering the world market on a growing scale. Commercial farming and trading is an increasingly prominent feature of the rural areas. This plan has incorporated many development project proposals submitted by the District and Provincial Development Committees as a major means of ensuring the widest possible participation in development planning.

6.5. During the new Plan period, the path followed will not diverge markedly from that which has been established over the years since Independence. However, certain measures will be taken which, while they do not depart from earlier steps, will nevertheless entail much greater emphasis than before.

The roads programme will be sharply accelerated. This will more than double the programme carried out between 1964 and 1968. Rural water improvement will shift from a stage of experimental construction to a major effort to bring water to people throughout the rural areas. For the first time, a housing programme intended to provide demonstration effects for rural builders will be instituted.

6.6. In addition, a new programme of rural action will be instituted to tackle directly the problem of integrated development which calls for far greater planning work by the District and Provincial Development Committees. This programme is discussed in greater detail in the last half of this chapter. It is only necessary here to note that it is an experimental programme, that it is intended to provide experience in the conception, design and execution of comprehensive rural development at the District level, and that the techniques and procedures will be extended to additional areas as rapidly as findings and funds permit.

6.7. This programme underscores the importance the Government attaches to the role of the District Development Committee. These Committees, composed of the technical and administrative officers at District level, have many advantages. They are fully familiar with local problems and potential, their lines of communication to the people and to other parts of Government are direct and efficient and their job is comprehensive. A central task of rural development is to bring these committees to a high level of planning and plan implementation operation. They have the potential for making rural development a continuous and self-sustaining process.

6.8. Such a goal is of great importance, for there are certain basic problems which remain as obstacles to the continuing development of the nation. The high rate of population growth of around 3 per cent per annum for the nation as a whole places severe pressure on the areas of high potential land and requires that the productivity of all types of enterprise must grow at a very high rate to achieve the level of domestic savings necessary for continuing development. There must be an even more rapid movement than has so far been achieved out of low productivity traditional farming and herding which is characterized by under-employment and very limited capacity for capital formation. Such a shift does not necessarily imply some new crop or crops, but is far more a matter of a recognition of opportunities by the people. Such circumstances are particularly clear in commodities such as maize and beef where market prospects are bright and where the experience and capability for production are widely present in the rural population.

6.9. In this connexion, it is clear that the development of the major towns cannot meet the fundamental problem of provision of sufficient employment opportunities for a very rapidly growing population. Although the major urban centres have been growing at an annual rate in excess of 6 per cent in recent years, they cannot absorb more than a fraction of those in search of work. Even to sustain the current rate of urban growth requires heavy expenditure in urban infrastructure. The capital to maintain this growth and also to create new opportunities in the rural areas must come from a steady rise in rural productivity.

6.10. The basic objectives of rural development must be designed to overcome these problems, while building on the strengths which the nation possesses. The major primary resources of Kenya are the land and the people. The substitution of higher for lower uses of land through intensive commercial farming, the diversification of agricultural enterprises, and the development of trade and rural industries are the major means of utilizing these resources to increase both levels of employment and incomes. Farming must become more efficient and flexible, since within the commercial agriculture sector itself there is danger of further deterioration in the world market situation in respect of certain crops such as sisal, tea, wheat and pyrethrum which comprise a significant portion of current agricultural activity in Kenya. The non-farming sector in the rural areas must also grow rapidly to support a highly flexible farm economy and to provide job opportunities in fields such as transport, trade, building and construction and related service industries.

6.11. In a very real sense rural development will imply rising urbanization, not in the major cities whose growth has been discussed already, but through growth of commercial activity in a large number of small trading centres. The plan designates rural growth centres as focii of trade, social services and communications which serve surrounding farm areas and which can significantly alter the pattern of migration and provide more even development of the nation as a whole. The rise of secondary urban centres has been a characteristic of Kenya over a long period. In the 1948 there were 17 towns in Kenya with populations of 2,000 or more. By 1962 there were 34 such towns. The designation of growth centres should ensure that this development takes an orderly course in future in terms of the needs of all rural areas for a wide variety of services.

6.12. Chapter 8 discusses the plans for agricultural development in detail. However, it is useful to consider these very broadly in terms of the problems and objectives outlined in the preceding paragraphs. Agriculture is fundamental to the development of Kenya and to rural development in particular. This is clear from a consideration of its level of contribution to Gross Domestic Product (GDP), employment and exports. In 1967 agriculture is estimated to have contributed over 30 per cent of GDP, to have absorbed over 50 per cent of all wage employment and produced about 60 per cent of the total value of exports, either as raw or processed products.

6.13. Government has devoted much effort to land transfer and resettlement programmes during the years since Independence. In 1963/64 this programme accounted for about three-fourths of all development expenditure in agriculture. By 1968/69 this programme had fallen to under half of such development expenditure. Thus the scale of this effort has gradually lessened as the programme has continued and its effects have been felt. During the new Plan period, this programme is expected to decrease even further while more broadly based programmes increase. Greater emphasis will be placed on land adjudication and registration, on the supply of credit to small-scale farmers, on extension services and training for small farmers, transport, bulk-handling, marketing and pricing arrangements and on mechanization and the use of fertilizers and insecticides. In the pastoral areas the range management scheme is expected to increase production of marketable animals through rationalization of herd size, pasture use and water supplies. The aim of these measures is to increase the effectiveness and flexibility of small farm and range operations and thus produce far-reaching effects on both the general economy where agriculture and animal husbandry contribute such a large share of activity, and also on the rural population which comprises over 90 per cent of the total for the nation as a whole.

6.14. Transport development is very closely related to agricultural development since the speed, ease and economy with which agricultural inputs and outputs are moved spells the success or failure of commercial farming operations. It is equally closely related to the build-up of other sectors of the rural economy. In Chapter 14 of the Plan, the development of the railways, roads, harbours and aviation are fully discussed. It is important to note here certain basic features of these plans. Government favours such modification in the Railways tariff structure as will permit rates and charges to reflect costs. This will permit the Railways to offer those types of service to shippers where rail has a distinct advantage. At the same time Government intends to move towards a policy of free movement of road hauliers insofar as this is consistent with public safety and the prudent maintenance of roads. The flexibility of this form of transport combined with the long-distance haulage of bulk commodities by rail can provide the most efficient and inexpensive transport responsive to the changing needs of Kenya's producers and consumers. The plan calls for the expenditure of approximately K£40 million on road development. Major emphasis will be directed to Secondary and Minor roads in the rural areas which are projected to absorb about 54 per cent of all road development, while 46 per cent will be devoted to trunk roads. This programme is intended to meet the needs of the heavily trafficked trunk roads while producing a network which adequately serves the primary producing areas of the rural countryside.

6.15. Basic programmes which will improve the quality of rural life as well as providing an important economic stimulus are to include a comprehensive plan for the provision of rural water supplies. Although there have been numerous small water schemes, Government is now embarking on a national programme designed to cover all parts of the nation. Such an ambitious programme will take about 30 years to complete, but it is envisaged that approximately K£1 million per year will be devoted to the planning and construction of rural water systems during the early part of this plan period rising to K£2 million per year by the end of the period. Chapter 13 provide the detailed projections for this programme as well as for the extension o electricity generation and distribution.

6.16. It is also intended to broaden the housing construction programme to include rural, as well as urban, schemes. Most government action in housing has been directed to meeting the pressing demand in major urban areas However, there is enormous scope for improvement of rural housing and this can be a source of major non-agricultural economic activity in the rural areas. Government intends to devote up to K£250,000 per year to rural housing through the National Housing Corporation as is outlined in Chapter 19.

6.17. Most rural families meet their needs for shelter through construction of various modifications of traditional houses at an estimated volume of 40,000 to 50,000 units per year, and it is not intended to provide financing schemes for this type of construction. Nevertheless, there is a major opportunity for rural enterprise in this sector as farm incomes rise. The objective of Government action in rural housing is closely tied to the designation of rural growth centres for the immediate future. In paragraph 6.11 the importance of small urban places located as distribution and service centres for the surrounding rural hinterland was discussed. It is to these centres that Government attention will be devoted at the start. However, over a longer period, housing aid here can affect all rural housing. The implementation of this programme will rely heavily on recommendation of Provincial Development Committees and is intended to have a demonstration element in the design and construction of such housing in all provinces.

6.18. The pursuit of the major programmes outlined so far, and a host of others not mentioned in the Plan can only be successful with the full participation of the people. These plans are based upon the capacity of the people to work for themselves through making use of training opportunities and through intensive self-help action. To this end, Kenya has built a complex organization of agricultural extension, community development services and adult education which serves the people through direct contact, stimulation, demonstration and financial aid. In addition, a structure of Community Development Committees has been created which ensures consultation and participation by both private citizens and Government from the level of the individual project, through Locational, Divisional, District and Provincial Committees to the National Community Development Committee.

6.19. This has been the direction of development since the President made it clear with his first call for the *Harambee* effort that the task of building the rural areas was jointly a responsibility of the Government and the people The efforts of the Community Development Department have been, and mus continue to be to shape the *Harambee* spirit to the most productive and socially useful ends. As early as 1964 it was clear that the people were prepared to respond fully to the President's call. It has not been a matter of stimulating a development consciousness, but rather of helping the peopl to identify their needs, plan their projects in a sound manner, and complete them without undue delay because of unforeseen shortages of materials or other factors.

6.20. This can easily be seen by even the briefest examination of self-help activity. During 1964, projects worth over K£600,000 were completed. This had risen to a total value of K£2,600,000 by 1968. Over the whole period 1964 to 1968 self-help contributed development projects with a total value of K£7.2 million located in every Province and District in the nation.

6.21. Such rapid growth of a mass movement taking place in all parts of the country itself generates major problems as its many separate projects overcome immediate local needs. Throughout the rural areas there has been a high demand for certain basic social services which are seen by the people as the first steps towards a better life for themselves and their children. Schools and health facilities have headed this list closely followed by social halls, nursery centres, teacher's houses and youth centres. The balanced development of any area requires that the resources invested generate further resources in a self-sustaining process. Heavy investment in educational, health and social facilities can produce people with more productive potential. But unless the investment is balanced by projects which steadily increase agricultural and commercial productivity, the social investments cannot be sustained and growth may actually be retarded due to commitment of available funds without return for long periods.

6.22. The Local Authorities have been hard pressed to find the funds to meet the recurrent costs of this rapid extension of facilities. If by voluntary effort the needs of a community are translated into a project which is carried to successful completion, there is an immediate growth in community solidarity and a positive attitude towards the development of other projects. However, a proliferation of projects with heavy recurrent costs, as in the case of schools or dispensaries, may lead to later community breakdown. For without a concomitant growth in local productivity which will cover the rising costs of more services, the schools and dispensaries cannot be sustained. The self-help movement must then meet two closely related goals—the projects must increase the productive capacity of the region while at the same time increasing the social cohesion and local ability to respond to future demands.

6.23. In order to meet these problems Government has elaborated a system of registration of self-help groups and developed a simple method for pyhsical and financial planning of projects. Furthermore, the District Development Committees have completed a full review of all self-help project proposals and have assigned priorities to these. This is intended to provide for the orderly growth of productivity and services in which a balance can be maintained between costs and revenues. In its turn Central Government intends to implement these priorities through the provision of aid to self-help to a total of K£440,000 over the Plan period. Self-help will remain an instrument of the people, but overall planning at District and Provincial level will aid it in becoming increasingly effective as a tool of local development, while financial aid will help the people to carry the heavy burden they have chosen in advancing themselves.

6.24. The provision of training is a self-evident element of rural development. However, the content and structure of that training is by no means so self-evident. It must clearly proceed at two levels simultaneously. There is a need for in-service training for Government staff engaged in rural development work. There is also a need for training and education of the people in the rural areas which is relevant to their immediate tasks and which also opens new opportunities in the way of diversification of the rural economy.

6.25. The central importance of training and education in the development process is well understood by the Government which possesses an extremely broad range of existing programmes. These range from the structure of formal education covering primary, secondary, technical and university education, and falling under the control and guidance of the Ministry of Education, through the in-service training of specialist Government Officers, which is conducted at many Institutes and Colleges, to short courses offered at Farmer's Training Centres, and Rural Training Centres and the informal literacy classes organized through self-help groups, and aided by officers of the Ministry of Co-operatives and Social Services. Details of these operations are contained in the sectoral plans covered in several chapters of this document, most particularly Chapters 8, 17, 18 and 20.

6.26. Of particular significance to rural development is the provision of training and education for adults. This is a consequence of two major considerations. The increasingly widespread provision of formal education in the schools and the high differential in incomes between urban and rural sectors is creating a demand for wage employment in the urban areas. There follows from this an apparent rise in unemployed persons, people who in former times engaged in activities of relative low productivity in the rural farming sector and who now migrate to the towns in search of a higher use for their potential. The retention of this labour force in the rural areas hinges upon the creation of opportunities for effective use of the productive potential it represents. This requires training for school leavers and also for their elders who may never have attended school which will make them quickly capable of applying new understandings and skills.

6.27. Effective training of this type must be highly localized and relatively inexpensive because of its large scale. The agricultural and home economics training offered through the 28 existing Farmer's Training Centres and the various short courses conducted at the District Training Centres run in collaboration between County Councils and the Department of Community Development, are the closest approach to this currently in existence. Both types of Centres provide in-service courses for Government staff as well as courses in specific skills for the people of the areas in which they are located. Since the courses are short and the fees quite small, they can handle a large volume of limited and sharply focused training. The existing facilities are also utilized by other Ministries which do not operate centres of their own, which thus broadens their utility.

6.28. Certain problems in the existing operations have been identified. These include a lack of co-ordination between the courses offered by the various Ministries, a lack of comprehensive development plans for each District which would provide a framework for local training programmes, insufficient training of instructors and faulty co-ordination between Training Centre staff and other field staff who must follow up with persons who have attended a course.

6.29. All of these problems are being tackled within the new Plan. The Board of Adult Education in conjunction with the Ministries of Agriculture and Co-operatives and Social Services is implementing a more co-ordinated approach to rural Adult Education. One aspect of this is the creation of a pilot project of two multi-purpose training centres. To be termed District Development Centres, these will combine under a single administration all types of adult training within a District. They will be closely tied to the District Development Committee and will programme training courses to the development plans and priorities established by the Committee. Such Centres will utilize existing facilities where possible, building additions as required. The cost of an entirely new centre using no such facilities is estimated at about K£80,000. However, the pilot centres will both have access to facilities already on the ground.

6.30. The recent reorganization of the Ministry of Agriculture which unifies all its training and extension operations should ensure, at the same time, close co-ordination in extension follow up. Similarly, the Division of Adult Education of the Ministry of Co-operatives and Social Services has recently issued a new policy statement laying increased stress on functional literacy. This will involve literacy training specifically tied to development projects. Such training provides literacy and numeracy as a tool of direct relevance to other skills imparted to achieve a development target. Such an approach should not only enhance the effectiveness of training but also ensure a higher retention rate of literacy itself.

6.31. In this same context, Government is closely interested in the experimental programme of very low-cost training centres termed Village Polytechnics which has been launched by the National Christian Council of Kenya. Seven such centres have begun and are directly aimed at the school-leaver. They are intended to provide skills and attitudes immediately applicable by the student and contributory to a whole career. This includes skills and vocations geared to local need, civic and cultural knowledge that makes a better citizen, and additional skills required in any enterprise such as maths, book-keeping and business procedure. There would appear to be realistic possibilities for integrating these Village Polytechnics into the Adult Education programmes of the Government if the current experimental phase proves successful.

6.32. To implement the expanded activities in adult education identified here, will require more training in techniques of adult education for Government staff. In Chapter 20 there are details of the projected increase in Adult Education Officers, Assistant Education Officers (Adult Education) and the creation of an Inspectorate of Adult Education. More in-service training of officers now in Government service with this function is also needed. Adult Education as a regular part of the curriculum in Teacher Training Colleges is also required. The Adult Studies Centre at Kikuyu has launched a three-month in-service course for adult educators, while three Teacher Training Colleges will shortly begin a trial of a training course in adult education for third-year students.

6.33. The crucial importance of this type of action in the context of rural development lies in the participatory nature of any such programme. Although the identification of development potentials, the estimation of markets, the creation of optimum strategies of labour, equipment and credit inputs are all highly technical operations requiring specialist skills, it is nevertheless the understanding of these and commitment to them of the rural people which spells success. Thus co-ordination of training and education which goes beyond the imparting or manual skills is necessary. This is underscored by the fact that rural development is aimed not only at the improvement of agriculture but at the diversification of the rural economy. Such diversification rests on the ability of the people to grasp the general shape of the local economy and seize the opportunities for service occupations which are generated. A highly responsive array of training for adults is required and should emerge over the course of this plan period.

6.34. The Kericho Conference held in September 1966 brought together a group of political leaders, administrators and research workers with a common concern for the major problems of effective utilization of Kenya's human resources for full development. This Conference produced from a series of carefully prepared working papers a list of 112 conclusions concerned with the strategy of development. These conclusions, together with the experience gained so far makes it clear that co-ordinated local development to yield higher incomes and more employment opportunities for youth is of the highest priority. This whole plan is responsive to these needs, but neither the plan nor the Kericho Conference itself provides tested answers for all the questions which arise regarding the most effective methods of meeting these needs within the resources Kenya has at its disposal.

6.35. Thus a special rural development programme will be launched during the 1969/70 financial year which coincides with the beginning of the new plan period. This will take the form of a co-ordinated development programme mounted in a number of representative areas, aimed primarily at increasing the job opportunities and raising the level of incomes. It is intended to execute this programme within the existing machinery of Government by the application of additional inputs of personnel and resources to a plan devised jointly by field and headquarters officers. It is central to this programme that results be applicable to other areas outside those originally chosen. To this end, projects will be evaluated as the programme proceeds and findings will be used immediately in similar areas outside the first stage programme. The objective will be to use the selected areas as a focus for a programme which will aim at making better use of existing resources, at closing gaps in development and at experimenting with new ideas and projects.

6.36. Fourteen areas were selected in 1968 as broadly representing the problems of development in the small holder farming areas. It is intended to apply the lessons learnt from an action programme in the fourteen areas to other similar areas throughout the country, and also to the purely pastoral and settlement areas. Different parts of the country differ greatly in the degree of agricultural advance already achieved, in density of population and acuteness of the unemployment problem, and in their potential for different types of crop and animal production. It is one main object of the programme to devise and test ways of rural development which are different because they are genuinely adapted to the different potential, (human as well as physical) and needs of each area.

6.37. On the basis of the survey of the fourteen areas which was carried out during 1968, the outlines of a special rural development programme have emerged. A start will be made in six of the fourteen selected areas, and programmes for the other eight areas will follow as soon as possible. The areas are:—

Province	*District*	*Division*	
Western	Kakamega	Vihiga	First Phase.
	Busia	Central	
Nyanza	S. Nyanza	Migori/Kuria ..	First Phase.
	Kisii	Irianyi	
Rift Valley	W. Pokot	Kapenguria ..	First Phase.
	Baringo	Northern	
	Nandi	Northern	
Central	Nyeri	N. Tetu	First Phase.
	Murang'a	Kiharu	
Eastern	Embu	Mbere	First Phase.
	Machakos	Yatta	
	Meru	S. Imenti	
Coast	Kwale	Kikoneni Location	First Phase.
		Mwereni "	
		Mkongani "	
	Taita	Wundanyi	

6.38. The foundation of the programme will be a concentrated drive to increase agricultural output. This programme will involve co-ordination of many departments: the grower must have precise recommendations for much improved practices; seed, fertilizer and plant protection must be timely and adequate for small growers; roads, water supply, and marketing arrangements must be adequate for the proposed increase in output; additional personnel may have to be trained and posted; some mechanization may be needed; the programme of agricultural and marketing information must be designed in support.

6.39. While the spearhead programmes are on the agricultural front, many consequential needs will arise. For example, as purchasing power increases, it will be necessary to increase local supplies of consumer goods, and to train personnel for farm and housing improvement, tractor maintenance, manufacture of farm requisities and their maintenance, farm accounting, processing and minor rural industry, and credit management. Apart from training, it is necessary to identify precisely what are the opportunities to improve and expand existing rural industries and to start new activities in this field. A survey has commenced in April 1969 with this objective. It is intended to link the development of rural industries with the concept of rural growth centres and to focus some of the projects in the pilot areas of the special rural development programme. Some of the pilot projects in Rural Housing, which are to be mounted by the Ministry of Housing, will be sited in the areas selected for the special rural development programme, so that they may form part of a co-ordinated development programme for the area. Co-ordination of this programme with the activities and development plans of the different ministries will require careful attention. A National Rural Development Committee (N.R.D.C.) has therefore been established under the chairmanship of the Permanent Secretary, Office of the President with the following terms of reference:—

(a) To consider and approve experimental projects in the field of rural development prepared by the secretariat in consultation with the operating ministries.

(b) To co-ordinate applications to donors for external assistance towards experimental projects and to allocate funds to operating ministries for their execution.

(c) To draw the attention of operating Ministries to constraints, bottlenecks and subjects that require priority attention and to co-ordinate special projects.

(d) To refer major policy issues to the Economic Ministers. A small secretariat to the Committee has been established in the Ministry of Economic Planning and Development.

6.40. The procedure for co-ordination below the N.R.D.C. will be through the Provincial, District and Divisional Administration and their teams, including co-ordination of local authority services where necessary. One of the main features of the programme will be the simultaneous implementation of a variety of projects in a co-ordinated effort. It is not proposed to lay down national procedures for all eventualities, but to meet specific and concrete problems of co-ordination as they arise in the Districts as the programme advances. For example it may prove useful to experiment with the present structure of Development Committees at various levels, in order to find the most satisfactory participatory opportunities. It is intended to incorporate the implementation of the district development plans in the pilot area programmes, and that the people of the areas concerned should become fully involved, through the self-help and development committees and the local authority councils, which will all be consulted and implicated in the programme for their areas from the planning stage onwards.

6.41. One of the fundamental principles of the whole programme is that projects and methods that are proved to be successful in the pilot areas can be reproduced in other similar areas subsequently. The application of this principle to the preparation of the pilot area programmes will require close supervision. Inputs of finance, material and staff must be on a scale which can later be repeated on a wider scale, if the pilot programmes are successful. To provide this supervision, an evaluation unit will be established within the Secretariat of the National Rural Development Committee, to ensure that the results of the initial surveys are taken into account in the preparation of the pilot area programmes, and that the programmes accord with the fundamental principles and objectives laid down. The unit will also, in collaboration with the Institute for Development Studies of the University College, Nairobi, set up an evaluation programme for monitoring the results of the pilot area programmes with a view to their subsequent application to other similar areas.

6.42. A second fundamental principle is to utilize existing resources of staff and finance as far as possible, and to seek external assistance to support what will, in effect, be a large scale self-help effort. Certainly external assistance will be needed especially for experiments and innovations, the impact of which will be measured by the evaluation unit. It is hoped that external aid agencies will be able to relax their current restrictions on local costs in respect of such expenditure. Special assistance will be required in the field of training, especially staff training, and equipment. Donor agencies have already expressed great interest in this programme, and it is believed that the necessary resources will be made available, when detailed projects are ready.

6.43. The programme will be implemented in two stages. The first stage commenced in April 1969 with the preparation of detailed programmes for the six pilot areas selected for the first phase in South Nyanza, Kakamega, West Pokot, Nyeri, Embu and Kwale Districts. Implementation of these six programmes will commence within the 1969/70 financial year. Meanwhile, programmes for the remaining eight areas in Kisii, Busia, Baringo, Nandi, Murang'a, Meru, Machakos and Taita Districts will be prepared for implementation in the 1970/71 and subsequent financial years. Until the pilot area programmes have been prepared and costed, it is not possible to forecast the improved practices; seed, fertilizer and plant protection must be timely and adequate for small growers; roads, water supply, and marketing arrangements must be adequate for the proposed increase in output; additional personnel may have to be trained and posted; some mechanization may be needed; the programme of agricultural and marketing information must be designed in support.

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CHAPTER 7—LOCAL AUTHORITIES

The Significance of Local Authorities for National Development

Local authorities provide a considerable share of the infrastructure and services within which development must take place. They must therefore be brought into the national development effort, to assist in the formation and implementation of economic and social plans. This calls for intensive orientation toward development thinking and action, and closer co-ordination between local and Central Government to achieve realistic planning and plan implementation, based on better local information and related to local priorities. The need for closer involvement of local authorities has been well understood and accepted by the Government, and a number of essential modifications in local authority structure and functions, and in planning procedures generally, have been introduced to that end. But manpower shortages have limited the build-up of administrative and technical staff; financial limitations have meant a severe rationing of both development and current expenditure; and considerable time is required to instil the necessary understanding of development philosophy and procedures throughout the local authority structure, and among the local populations themselves. Thus the involvement of local authorities in economic and social planning is presently in a transitional stage, reflecting some compromises in respect of the responsibilities and functions that can be efficiently handled at the local level.

7.2. Under existing conditions, local authorities are involved in certain development projects initiated and executed at local level, with consultation and assistance from Central Government, and in other development projects formulated by Central Government but requiring joint action for implementation. Government's continuing and fundamental objective is to improve the development role of local authorities and to strengthen the partnership of Government units at all levels in the development process.

Local Government Structure and Operations

7.3. Local authorities are now classified as first tier (municipalities and county councils) and second tier (urban councils and area councils). Currently there are seven municipalities, 33 county councils, 18 urban councils and 54 area councils, for a total of 112 Governmental units. However, the urban and area councils are under the county councils and their budgets in most cases are integrated with and administered by officers of the county councils.

7.4. Local authorities have been empowered to provide a wide range of services, some of which are strictly local in character (such as markets, slaughter houses, minor roads and street lighting) while others involve both local and national interests (such as education, health services, roads and housing schemes). But in trying to keep services abreast of the requirements of a rapidly expanding population asking for more services each year, local authorities have found themselves in increasing financial difficulties. Since 1964, combined expenditures for recurrent and development budgets have been rising at an average annual rate of 10 per cent for municipalities and 11 per cent for county councils (including urban and rural area councils). This contrasts with average annual increases of 7 and 10 per cent, respectively, for all revenues, excluding Government grants. The difficulties have been much more severe for the county councils, since municipalities have had a substantially larger revenue base which has enabled them to maintain relatively higher levels of expenditure and even to accumulate reserves for development and contingencies. However, this relative advantage is now narrowing. Since 1965, the needs for urban services and development have started to outrun local revenues and exhausted reserves. County councils on the other hand have been able to rely on Government grants to help meet the rapidly mounting costs of providing services. Table 7.1 summarizes the general expenditure and resource situation for both groups during 1964-68.

7.5. While total expenditures for municipalities and county councils were approximately equal each year during 1964-68, the county councils served 12 to 13 times as many people. Thus, the gross *per capita* expenditure in the municipalities, rising from K£13.6 to K£16.0, averaged about 12 times that of the county councils. The contrast is even more marked if social services (education, health, housing and community development) are considered as a separate group: the municipalities spent over 27 times as much *per capita* on these services than did the county councils. While urbanization requires many outlays which are not needed in rural and semi-urban areas, this degree of difference in *per capita* expenditure strongly suggests that on equity grounds *per capita* expenditures for services outside the municipalities should rise considerably.

7.6. In 1968, local authorities spent some K£26.3 million on capital and recurrent outlays, of which K£12.7 million (48 per cent) was spent by the seven municipal councils and the remainder by the county and lower tier councils. About K£4.2 million of the total outlays came from Central Government, almost all being grants to county councils to assist with recurrent expenditures. The municipalities were able to raise enough from local revenue sources to cover essential recurrent budget items but few had any budget surplus to direct to development projects. Local authority housing projects depended heavily, usually entirely, on the National Housing Corporation for loans, which amounted to K£1 million in 1968. For other development finance, both county councils and municipalities, with the exception of Nairobi which has access to local and external financing, relied solely on the Local Government Loans Authority (LGLA). In 1968, almost K£124,000 was borrowed from the Loans Authority for capital projects. In recent months, however, many county councils have had to resort to short-term loans from LGLA to cover recurrent costs (especially teachers' salaries) and some K£500,000 has been borrowed for this purpose. Moreover, the county councils have additional debts of over K£750,000 in the form of accounts payable and borrowing of reserves of lower tier authorities, also incurred to meet recurrent expenditures.

TOTAL EXPENDITURE AND REVENUES OF LOCAL AUTHORITIES, 1964–1968

Table 7.1 *K£'000*

	1964	1965	1966	1967	1968	Totals
MUNICIPAL COUNCILS						
Administration	885	690	888	894	984	4,341
Community Services (a)	2,548	2,634	3,074	2,836	3,121	14,213
Social Services (b)	2,592	2,713	3,011	4,256	4,681	17,253
Trading Services (c)	2,418	2,415	3,185	3,261	3,587	14,866
Unallocable	124	193	241	269	296	1,123
Total Expenditures	8,567	8,645	10,399	11,516	12,669	51,796
Revenues and Loans (d)	9,144	9,394	10,342	11,162	11,781	51,823
Deficiency (Surplus) (e)	(577)	(749)	57	354	888	(27)
Government Grants (f)	323	389	192	211	224	1,339
Net Deficiency (Surplus)	(900)	(1,138)	(135)	143	664	(1,366)
COUNTY COUNCILS						
Administration	949	954	993	1,147	1,274	5,317
Community Services (a)	1,041	977	1,193	1,117	1,241	5,569
Social Services (b)	6,093	6,974	7,776	8,869	9,854	39,566
Economic Services (g)	271	273	266	357	397	1,564
Trading Services	328	290	416	378	420	1,832
Unallocable	288	124	313	423	470	1,618
Total Expenditures	8,970	9,592	10,957	12,291	13,656	55,466
Revenues, Loans and Reserve Drawings	6,052	6,693	7,494	8,895(i)	9,860(i)	38,994
Deficiency (e)	2,918	2,899	3,463	3,396	3,796	16,472
Government Grants	1,912	2,485	3,267	3,624	3,939	15,227
Net Deficiency (Surplus)	1,006	414	196	(228)	(143)	1,245

NOTES.

(a) Primarily roads and sanitation.
(b) Health, education, housing, community development and other.
(c) Water, markets, slaughterhouses, breweries and beershops, housing estates and other.
(d) Graduated Personal Tax, rates, indirect taxes, income from property and sales, loans and other.
(e) Before Government grants.
(f) Government grants to municipalities are made only for road projects with a regional or national interest.
(g) Mainly veterinary service, plus some forestry activities.
(h) Including urban and local area councils.
(i) Figures modified to include withdrawals from reserves.

7.7. The general picture which emerges from the 1968 figures for local authorities has been taking form for several years: first, recurrent expenditures are outrunning local revenues and secondly, resources for development are limited, whether self-generated or borrowed. Behind these financial problems are several major difficulties of an administrative nature: a shortage of trained manpower in the local authorities including administrators, professionals and technicians; consequent problems with the programming of services; weaknesses in budgeting and auditing; and insufficient communications, in both directions, between local authorities and Central Government. These difficulties are most severe for the county councils and least severe for the larger municipalities, but taken altogether they constitute a formidable obstacle to substantial short-run improvement in the administration of services and in development planning and implementation. Most serious of all, they are getting progressively worse: the last Plan called attention to them in the following words:—

"Greater responsibilities and lack of trained staff, combined with a loosening in the Central Government reins over the local government finances resulting from the democratization of councils, have pushed many local authorities into great financial difficulties. These factors have also given rise to financial mismanagement, instances of which have been difficult to detect and rectify promptly because the accounts of many local authorities have not been audited for the last three years due to an acute shortage of accountants. Financial difficulties have forced many local authorities to curtail services, including dismissing teachers in some cases."

7.8. The Government has been aware of the growing seriousness of these problems, particularly for the county councils, who must allocate some 80 per cent of their expenditures to the three principal services: primary education, health and roads, After an extended review of existing administrative and financial problems and alternative ways of dealing with them, the Central Government has decided to take direct responsibility for the three principal services until such time as the county councils are in a position to resume local direction of them. This decision is taken by the Government with some regret but it considers that its first responsibility is to ensure that essential local services for primary schools, health and roads are maintained. The municipalities will retain their present responsibilities in these fields.

7.9. The decision means that the Ministries of Education, Health and Works will henceforth handle the programming, administration and financing for these services in the county council areas. As from 1970, the recurrent and development costs for education, health and roads in the county areas will be included in the vote of each of these Ministries. However, in planning and administering its particular service, each Ministry will take account of recommendations and comments made by local joint boards or committees that will be especially established for each of these services. Revenues from the Graduated Personal Tax (G.P.T.), which are now levied and collected by the Provincial Administration and passed to the county councils, will go directly to the central exchequer, while school fees will be collected by the Ministry of Education and used as an "appropriation-in-aid" against its higher gross vote.

7.10. Other local revenues from land rates, cesses, fees, etc., will continue to be collected by the county councils, and should in some areas be sufficient to finance the remaining services for which they are responsible: water and sewerage undertakings, trading services such as markets and slaughter-houses, agricultural services and housing. In other cases, where these revenues are not sufficient, Government grants for the difference may still be necessary. The councils will continue to apply for loans to finance development expenditures in these fields.

7.11. As far as development planning is concerned, local participation will continue as at present, through the existing Development Committees and Development Advisory Committees at provincial and district level (*see* Chapter 3). Thus the Ministries of Education, Health and Works will have the important benefit of receiving development project proposals from these groups, for inclusion in their future development programmes.

Development Programmes of the County Councils

7.12. For the period 1964-68 the county councils (including the second tier authorities) had capital expenditures of nearly K£2.2 million, averaging some K£435,000 per year. The rise over the period was uneven and gradual, from K£475,000 to K£527,000, with expenditures for education, health, roads and administration accounting for 78 per cent of the total. Financing was undertaken, in the main, by loans from the Local Government Loans Authority (LGLA).

7.13. Capital formation outside the municipalities also results from the self-help programme which is carried out almost entirely with contributions from the people in cash, materials and labour (*see* Chapter 20). Statistics on the achievements of these programmes have been tabulated since 1965 and show a rise from K£0.8 million in 1965 to nearly K£2.7 million in 1968—the latter level being over five times that realized by the county councils in the same year. Schools, health centres and dispensaries predominated, accounting for nearly two-thirds of the total.

7.14. Despite this upsurge of development through the self-help groups, the capital programmes in county council areas have been too low, often because insufficient revenues were available to meet the associated annual recurrent costs. But in addition, the county councils have not had administrative capacity to enable them to prepare long-term development programmes and it has been necessary to make projections which can provide some indications for Plan purposes. Accordingly, Table 7.2 summarizes a development programme starting at the councils' estimated level for 1969/70 and rising at 18 per cent per year. This fairly steep growth rate is to make up for past under-spending on development. Certain services, especially sewerage, trading facilities and housing have been assigned sharp increases not only to compensate for relative neglect in the past but to avoid restraints on future development.

7.15. The result is a development programme beginning at K£0.7 million and rising to K£1.0 million by 1973/74, for a total expenditure of K£3.8 million. An estimated additional K£1.5 million will be spent by the Central Government on education, health and road developments in the county areas:

at present, these expenditures would be the responsibility of the county councils, but from 1970 they will be included in the development programmes of the three operating ministries concerned, as explained above. The capital programme of K£3.8 million will be implemented by the county councils themselves, and will be financed largely by loans from the LGLA. In addition to the provision of loan funds, an essential condition for the programme is that the county councils improve the planning and implementation of capital projects. The Ministries of Education, Health and Works will perform the necessary planning for development programming at local level for the services they will take over, which should therefore release county council staff resources to work on the efficient implementation of the remaining development programme.

Table 7.2 — ESTIMATED DEVELOPMENT PROGRAMME FOR COUNTY COUNCILS — *K£'000*

	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Period
Administration (a)	141	150	150	150	150	150	750
Water Supply	34	37	45	55	70	90	297
Sewerage	1	30	60	100	150	210	550
Trading facilities (b)	4	20	40	70	110	160	400
Community/Social/Recreational facilities	5	10	20	30	30	30	120
Agricultural Services..	49	60	65	70	80	80	355
Housing	7	50	60	75	100	150	435
Miscellaneous (c)	66	115	120	130	140	150	655
Sub-totals	307	472	560	680	830	1,020	3,562
Education (d)	28	30	—	—	—	—	30
Health (d)	34	37	—	—	—	—	37
Roads and drainage (d)	157	180	—	—	—	—	180
Sub-totals	219	247	—	—	—	—	247
TOTALS	526	719	560	680	830	1,020	3,809

7.16. The additional recurrent costs that would result from the development programme outlined in Table 7.2 are not known precisely. Such calculations will be made as part of the specific project planning and analysis which has thus far been largely absent at county council level. However, estimates of total recurrent costs for county councils over the Plan period have been made, and are shown in Table 7.3 together with projections of revenues. The projections take into account the fact that recurrent costs and associated revenues of primary schools and health services (such as school fees) will become part of the annual estimate of the operating Ministries concerned.

7.17. An important goal of the Plan is to bring the recurrent finances of county councils into greater order. As a result of the reallocation of responsibilities outlined above, the gross deficiency between total costs and total revenues (excluding Central Government grants) falls from K£8.1 million in

(a) Offices, etc.
(b) Primarily markets and trading centres.
(c) Including progressive installation of fire brigade equipment and buildings, at K£50,000 per province.
(d) Development expenditures for these services will be included in the Central Government budget from 1970/71 (*See* Paragraph 7.9).

PROJECTED RECURRENT COSTS AND REVENUES FOR COUNTY COUNCILS

Table 7.3 *K£million*

FUNCTION/REVENUE SOURCE	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74
COSTS OF FUNCTION						
1. Administration	1·2	1·3	1·5	1·7	1·9	2·1
2. Trading Services	0·4	0·4	0·4	0·4	0·5	0·5
3. Agricultural Services ..	0·3	0·4	0·4	0·5	0·5	0·6
4. Miscellaneous	0·6	0·7	0·7	0·8	0·8	0·9
5. Sub-total 1–4	2·5	2·8	3·0	3·4	3·7	4·1
6. Education	9·6	11·5	—	—	—	—
7. Public Health	1·3	1·4	—	—	—	—
8. Roads	1·5	2·0	—	—	—	—
9. Sub-total 6–8	12·4	14·9	—	—	—	—
10. Total Recurrent Costs 5+9	14·9	17·7	3·0	3·4	3·7	4·1
REVENUES BY SOURCE						
11. Indirect Taxes	0·8	0·9	1·0	1·2	1·4	1·6
12. Other Income (*)	1·8	1·9	2·1	2·3	2·6	2·9
13. Sub-total 11+12	2·6	2·8	3·1	3·5	4·0	4·5
14. Graduated Personal Tax ..	3·1	3·3	—	—	—	—
15. School fees	3·3	3·5	—	—	—	—
16. Sub-total 14+15	6·4	6·8	—	—	—	—
17. Total Revenues 13+16 ..	9·0	9·6	3·1	3·5	4·0	4·5
18. Gross deficit 10–17 (surplus)	5·9	8·1	(0·1)	(0·1)	(0·3)	(0·4)

(*) Includes local rates, rents and service charges (mostly in the urban area councils), interest and sale of assets.

1969/70 to a small surplus overall in 1973/74. If primary education, health and road services were not taken over by the Central Government the total deficit for the Plan period would have been estimated at K£45.3 million. The fact that education, health and road services will revert to the Central Government means that the county councils as a whole should be able to remain in balance.

Development Programmes of the Municipal Councils

7.18. Urban areas are at present experiencing population growth rates of 5-7 per cent. The immediate relevance for development is that large investments in urban infrastructure are required for such basic necessities as streets, water and sewerage, public buildings, schools, hospitals, clinics and housing. In 1962, the year of the latest available census data, the seven municipalities had a population of 550,975, or 6.5 per cent of the national total of 8.6 million. Assuming an average annual growth rate of 6 per cent, at mid-1969 these seven centres had an estimated 842,000 and by mid-1974 they will have an estimated 1,130,000 people, or 8.0 and 9.2 per cent respectively, of the national total. Thus, in 12 years, the population of these seven cities will have doubled. During the Plan period itself, the estimated increase will be 288,000 persons, or 34 per cent in five years.

7.19. During the five years 1964-68, the seven municipalities spent nearly K£12 million on capital projects, rising from an annual level of some K£2.0 million to nearly K£3.5 million. The largest expenditures were for water supplies (K£2.9 million), sewerage (K£1.1 million), roads (K£1.6 million) and housing (K£3.2 million), with water and housing in particular showing very marked increases. Although the total expenditure level varied irregularly from year to year, the average annual increase was about 10 per cent. A significant thing about these outlays is that over 80 per cent of them were in Nairobi and Mombasa, with 67 per cent in Nairobi alone, reflecting the heavy population concentrations and the more advanced capital programming in these two centres.

7.20. For this Plan period, the municipalities have formulated development programmes which, while not complete in project content for the later years of the period, nevertheless represent a major step forward in systematized planning for urban requirements. The staffing situation has been improving and the municipalities have also been receiving more guidance and technical assistance from Central Government than in the past. Development expenditures for the Plan period are shown in Table 7.4; the total for all seven municipalities represents a spending aim of K£37 million of which Nairobi accounts for nearly 70 per cent. Functionally, housing, water supply, sewerage and roads will absorb some 86 per cent of the planned expenditure. However, some of the municipal development plans may, in the event, prove to be over-ambitious, while a number of proposed projects will need to be scrutinized carefully before they are implemented. It seems likely that the actual development spending of municipalities will be less than the K£37 million proposed by the authorities.

7.21. Financing the proposed development expenditures will present problems if they are to be implemented in full. Only K£1½ million of the total is expected to be available in the form of loans from the LGLA. Another K£10.6 million will be loaned by the National Housing Corporation, while Central Government grants, largely for trunk roads, should provide another K£0.8 milllion. Nairobi will aim to borrow approximately K£7.6 million from overseas and approximately K£10.0 million from the local market. In addition, it expects to recover about K£1.9 million through assessment on plot owners, mainly for roads, sewers and reticulation. The remainder of the programme, costing K£4.3 million, if it is to be implemented, will have to be financed from the municipalities' own resources.

7.22. On present trends, several municipalities will not have any surplus from recurrent revenues to allocate to development. The municipal councils will therefore have no alternative but to make vigorous efforts to increase local revenues from existing sources and also to seek new ones. Any improvement in local revenues will lessen the dependence on borrowing and give them a better chance of implementing the programmes they desire. The municipalities must therefore press energetically to maximize existing revenue sources and develop new ones during the Plan period.

7.23. Graduated Personal Tax assessment and collection is generally good in the municipalities but some extra revenue could be collected beyond that which will result from rising incomes and more taxpayers coming on to the rolls. Land rates could yield substantially higher revenues in some municipalities which have not yet raised the tax rates to appropriate levels or achieved adequate assessment of land values. Fees and charges—the principal items of which are school fees, rentals for housing, markets, other commercial facilities, and water charges—could also bring in considerably more revenue by appropriate increases in the levels charged. House rents, for example, are often well below market levels, and while some subsidization is appropriate for lower income groups there is considerable scope for bringing the average level up. And water charges could well be raised to reflect higher costs of

DEVELOPMENT PROGRAMME FOR MUNICIPAL COUNCILS

Table 7.4 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Period
Nairobi	3,088	4,458	5,499	5,855	6,725	25,625
Mombasa	993	1,502	849	897	599	4,840
Kisumu	225	158	230	254	201	1,068
Nakuru	168	258	642	793	264	2,125
Eldoret	119	296	352	262	186	1,215
Thika	533	309	250	385	268	1,745
Kitale	13	29	27	18	39	126
TOTALS	5,139	7,010	7,849	8,464	8,282	36,744
Administration*	246	308	170	150	190	1,064
Water supplies	810	1,220	1,920	1,970	1,620	7,540
Sewerage	680	630	730	710	590	3,340
Roads and drainage	956	950	981	951	927	4,765
Parks	3	16	40	15	14	88
Social and trading facilities ..	279	536	419	477	298	2,009
Housing	1,720	3,020	3,235	3,860	4,260	16,095
Education	211	157	191	178	239	976
Public Health	234	170	143	153	144	844
Miscellaneous	—	3	20	—	—	23
TOTALS	5,139	7,010	7,849	8,464	8,282	36,744

*Principally municipal buildings, vehicles, fire equipment, and machinery.

eventual replacement and to make possible some reserve accumulations to assist with system expansions, Turning to possible new sources of revenue, probably the most promising one would be rates on land improvements which presently escape direct taxation. However, this is a sophisticated tax to administer and requires assessors with special training; Nairobi is the only municipality to consider this tax, and has submitted draft legislation to Government for consideration. This and other possible new sources will be thoroughly explored early in the Plan period, with a view to introducing the most desirable ones as rapidly as possible.

7.24. *Nairobi.*—The Nairobi City Council has prepared a development programme for the city totalling K£25.6 million, which is nearly 70 per cent of the total for the seven municipalities. The level of development expenditure will rise from K£3.1 million in 1969/70 to K£6.7 million in 1973/74, with K£6.6 million (26 per cent of the total) programmed for water, K£2.4 million (9 per cent) for sewerage, K£3.6 million (14 per cent) for roads, and K£10.6 million (41 per cent) for housing. The remaining 10 per cent is for administration, education, health and social and trading facilities.

7.25. To finance this programme, Nairobi expects to recover K£1.9 million from plot owners as a result of capital improvements and to allocate other internal resources, making a total of K£2.3 million. It expects to receive K£5.7 million in Government transfers mainly in the form of National Housing Corporation loans and grants for roads, and to borrow K£7.6 million from overseas for water schemes and K£10.0 million from domestic sources. Nairobi should therefore be able to finance its proposed capital programme.

7.26. Recurrent costs arising from development projects are estimated at K£3.0 million for the period, commencing at K£0.4 million in 1969/70 and rising to K£0.7 million in 1973/74 and the City expects to meet these from increases in its recurrent revenues.

7.27. *Mombasa.*—The development programme for Mombasa totals K£4.8 million for the Plan period, commencing with nearly K£1.0 million in 1969/1970 but declining to K£0.6 million in 1973/74. The decrease reflects the fact that development planning in Mombasa, as in some of the other municipalities as well, has not yet reached the stage achieved in Nairobi, due to the shortages of professional and technical staff and to unfamiliarity with long-term planning procedures. In such a situation, it is not possible to anticipate all the development projects that will be required for the Plan period, and the later years consequently show an unrealistically low level of expenditure. Nevertheless, the planned programme includes K£0.2 million (4 per cent) for sewerage, K£0.7 million (14 per cent) for roads, K£0.3 million (5 per cent) for social and trading facilities and K£3.3 million (68 per cent) for housing, with the remaining 8 per cent for education, health and administration. There is no municipal development expenditure for water, since all water supply programmes are undertaken by the Mombasa Water Board; this causes the percentages for some of the other services to appear unusually high, especially for housing.

7.28. Mombasa expects to receive K£0.1 million from road grants, while the bulk of housing programme will be financed by the NHC. On these figures, there will thus remain a deficit of K£1.4 million which will have to be made up by Mombasa increasing its recurrent revenues and creating an additional surplus for development if even the proposed limited programme is to be completed. New recurrent costs attributable to the development programme are estimated at K£0.54 million annually, once all projects are functioning.

7.29. *Other Municipalities.*—The five other municipal councils have programmed development expenditures of K£6.3 million, involving between K£1.1 and K£2.1 million each for the Plan period, except for Kitale which has put forward only K£126,000. It must be recognized that the amount of development planning undertaken in these municipalities is still considerably short of the levels achieved in Nairobi and Mombasa; staffs and procedures will be built up on a priority basis to achieve comprehensive programming. Nakuru shows some increase towards the middle of the period but falls by 1973/74; the others show decreasing or level trends throughout the Plan period (Table 7.4). For all five municipalities, the combined development expenditures by functions are; K£973,000 (15.5 per cent) for water, K£829,000 (13.2 per cent) for sewerage, K£477,000 (7.6 per cent) for roads, K£764,000 (12.2 per cent) for social and trading facilities, and K£2,245,000 (35.7 per cent) for housing. The remaining 15.8 per cent is for education, health administration and miscellaneous. These development programmes require K£6.3 million, of which it is estimated that K£2.2 will come from the NHC, K£1.5 from LGLA and K£0.1 from road grants, while the balance of K£2.5 million will have to be made up by increasing recurrent revenues to earn a recurrent surplus and so prevent shortfall on development. The present contribution from their own resources is small, and efforts must be made to increase this.

7.30. The combined recurrent costs for these five municipalities arising from their development expenditures is estimated to be K£3.2 million for the Plan period. Projections of recurrent revenues under existing conditions indicate that Thika and Nakuru will be able to cover recurrent expenditures, while Kitale, Kisumu and Eldoret will have combined deficits totalling about K£1.2 million over the Plan period.

Summary of Development Expenditures at Local Level

7.31. Table 7.5 summarizes the K£36.7 million development expenditures planned by the seven municipalities and the K£3.8 million estimated for the county councils. In addition, substantial amounts of development work will be carried out by the self-help groups depending on the enthusiasm with which the spirit of *Harambee* is continued. Assuming the self-help capital formation continues to rise, but at a somewhat reduced rate compared to that achieved in recent years, the total could well reach K£20 million for the Plan period.

DEVELOPMENT EXPENDITURES BY LOCAL AUTHORITIES

Table 7.5 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Period
Municipalities	5,139	7,010	7,849	8,464	8,282	36,744
County Councils*	719	560	680	830	1,020	3,809
TOTALS	5,859	7,570	8,529	9,294	9,302	40,553

*Including urban and local area councils.

7.32. If this is achieved, the combined development effort would be equivalent to approximately K£60.0 million, an impressive figure, Yet it is undoubtedly on the low side in relation to needs because of incomplete project planning, especially for the later years of the Plan. Even so, this level of expenditure will place exceedingly heavy demands on sources of finance and on self-help materials and labour, and in some cases may not be achieved.

7.33. It is clear from this chapter that considerable difficulty will be experienced in the financing of even the limited local authority capital programmes set out here. Only K£4.5 million can be made available from the Local Government Loans Authority and the County Councils are likely to need up to two-thirds of this total, leaving only K£1.5 million available for municipalities. Although it is impossible to set out definite financing plans at this stage, particularly since expenditure proposals are not yet firm, a possible financing programme is reflected in Table 7.6.

POSSIBLE LOCAL GOVERNMENT DEVELOPMENT FINANCING

Table 7.6 *K£million*

	Nairobi	Mombasa	Other Munici-palities	County Councils	Total
N.H.C.	5·1	3·3	2·2	0·4	11·0
Roads, & other Grants ..	0·6	0·1	0·1	0·2	1·0
L.G.L.A.	—	—	1·5	3·0	4·5
Overseas Borrowing	7·6	—	—	—	7·6
Local Market Borrowing ..	10·0	—	—	—	10·0
Own Resources	2·3	1·4	2·5	0·2	6·4
TOTAL FINANCE NEEDED ..	25·6	4·8	6·3	3·8	40·5

CHAPTER 8—AGRICULTURE, LIVESTOCK AND CO-OPERATIVES

Introduction

When judged by the level of its contributions to Gross Domestic Product (GDP), exports and employment, agriculture is the most important sector of the economy. In 1967 the non-monetary sector of agriculture was estimated to have contributed about 21 per cent to GDP, the monetary sector 13 per cent, or agriculture in total, 34 per cent. About 60 per cent of the total value of exports was derived either from raw or processed agricultural products; and agriculture provided more than one third of all wage employment. Most important, about three quarters of the population depended on agriculture for their livelihood.

8.2. Between 1967 and 1974 it is expected that the contribution of the monetary sector of agriculture to GDP will grow at a rate of six per cent per annum, the non-monetary sector at 3.5 per cent per annum, and agriculture in total at 4.5 per cent per annum. Because GDP for the economy as a whole is projected to grow at 6.7 per cent per annum, this means that the proportion of GDP derived from agriculture will decline somewhat over this period—from 34.4 per cent in 1967 to 29.6 per cent in 1974. But in absolute terms agriculture's contribution to GDP should be about K£50 million higher in 1974 than it was in 1967. Likewise, Gross Farm Revenue (GFR), is expected to grow at an average rate of six per cent each year between 1967 and 1974—from K£66.9 million in 1967 to K£100.3 million in 1974. Crop production should contribute relatively more to the increase in GFR than livestock production, for the rate of growth of GFR from crops is projected at 6.8 per cent per annum between 1967 and 1974, whereas the comparable rate of growth for livestock is projected at 4.6 per cent. These projections are summarized in Table 8.1.

Summary of Major Policies and Programmes

8.3. For many reasons the Government places a very high priority on rapid agricultural development. Especially important is the fact that so high a proportion of the population will continue to depend on agriculture for their livelihood. Likewise, because agriculture is such an important component of the economy, rapid development of the agricultural sector has a major role to play in contributing to the growth of the whole economy. In particular, increased agricultural incomes are important both in providing additional savings and foreign exchange needed for development and in creating expanded markets for the goods produced in the non-agricultural sectors of the economy.

AGRICULTURE: GROSS DOMESTIC PRODUCT AND GROSS FARM REVENUE, 1967 AND 1974

Table 8.1

Item	1967	1974(b)	Rate of Growth 1967 to 1974	Share of total GDP or GFR	
				1967	1974
	K£ million	*K£ million*	*Per cent per Annum*	*Per cent*	*Per cent*
GROSS DOMESTIC PRODUCT (a)					
Monetary Agric. Sector	54·52	81·98	6·0	13·4	12·8
Non-Monetary Agricultural Sector	85·19	108·34	3·5	20·9	16·9
Agriculture in Total ..	139·71	190·32	4·5	34·4	29·6
TOTAL GDP	406·69	642·17	6·7	100·0	100·0
GROSS FARM REVENUE					
Crops	43·90	69·31	6·8	65·6	69·1
Livestock	19·74	27·00	4·6	29·5	26·9
Estimated Unrecorded Production	3·26	3·99	3·0	4·9	4·0
TOTAL GFR ..	66·90	100·30	6·0	100·0	100·0

(a) At Factor Cost.

(b) In 1967 Prices.

8.4. In the years immediately before and after Independence much of the Government's effort in the agricultural sector was devoted to the land transfer and resettlement programmes in the former Scheduled Areas. Subsequently, it was decided to give much greater emphasis to development of the traditional African farming areas. For this reason, land transfer and settlement programmes now absorb a smaller proportion of Government expenditure on agriculture than was the case at the time of Independence. In 1963/64, for instance, about three quarters of all agricultural development expenditure went into the land transfer programme. By 1968/69, this proportion had fallen to less than 50 per cent. In future, the change in emphasis will be even more marked, for only about 22 per cent of agricultural development expenditure will be used for the land transfer programme during this Plan period.

8.5. Certain changes are also being made in land use policy and some of these will affect the land transfer programme. A Land Use Committee is being established with the main objective of advising the Government on the best use of land where conflicting interests exist—for instance, where land could be used either for agriculture, or forestry, or wildlife and tourism. At present, some of Kenya's best land is overcrowded, while other high potential areas are under-utilized. The Government intends to encourage the movement of people from overcrowded areas to other districts where land is more plentiful. Other policy changes will directly affect the land transfer and settlement programmes. The need for a continued programme of sub-divisional settlement is recognized, but the rate of settlement will be slowed down and new settlement schemes will tend to involve the establishment of smaller farms than has previously been the case. During the new Plan period, major emphasis will be given to a programme designed to settle about 33,000 squatters, mostly on farms of less than 4 hectares each. The Government appreciates that families settled under this programme will have to be content with smaller incomes than the farmers on the Million Acre Settlement Scheme. However, this programme will have a significant impact on the problems of landlessness and unemployment at relatively low cost, thus leaving a high proportion of public agricultural development funds available for other development programmes. The Government will continue the present policy of placing Management Orders on mismanaged farms, and some of these farms will be used for Squatter Settlement.

8.6. Further policy changes will affect the transfer of intact large-scale farms. Most of the large-scale farms that have changed from ownership by non-citizens to citizens have been transferred with the assistance of either the Agricultural Finance Corporation (AFC) or the Agricultural Development Corporation (ADC). Usually farms have been transferred to citizens in whatever form they happened to exist prior to transfer. In many cases, this has involved the transfer of farms which were too large, given the managerial and capital resources of the new owners. Often, these larger than average farms have been taken over by large groups of people, for it was only in this way that many of the new owners were able to raise the capital required. But a high proportion of these larger farms have been characterized by very poor management. For this reason, both the AFC and the ADC will in future be especially careful to ensure that where they assist the transfer of large-scale farms, the new owners have the necessary capital and managerial skills. Frequently, where larger than average farms come up for transfer, this will mean that these farms will be split up into several more manageable units before being handed over to the new owners.

8.7. Instead of concentrating on land transfer schemes, agricultural policies and programmes will be much more broadly based. This is illustrated by the projections of Central Government development expenditure on agriculture given in Table 8.2. During this Plan period, total agricultural development expenditure is projected at K£39.6 million. Of this total, only K£5.6 million will be used for land settlement schemes and K£3.1 million for transfer and development of large-scale farms. A much higher proportion of the development funds will be used for programmes which are designed to have widespread effects on agricultural productivity and efficiency and which will involve a high proportion of farmers; the accent will be placed on modernizing agriculture on a broad front.

8.8. Increased emphasis will be given to the land adjudication and registration programme for the completion of this procedure is felt to be an important pre-condition for rapid agricultural development. Between 1969 and 1974 it is expected that about 7.4 million hectares of land will be involved in the land adjudication and registration programme. Of this total, about 2.5 million hectares will be in the high rainfall agricultural areas and about 4.9 million hectares will be in the lower rainfall range areas. This programme is expected to cost about K£6.3 million, which is equivalent to about 16 per cent of total agricultural development expenditure for the Plan period.

8.9. While the completion of land adjudication and registration is thought to be an important pre-condition for rapid agricultural development, this development can proceed quickly only if several other conditions are satisfied. Farm inputs must be readily obtainable at reasonable prices and credit facilities available, so that, where appropriate, farmers can borrow to finance the purchase of required inputs. Farmers will be helped to improve their farming methods through the extension services and agricultural education and training programmes. The quality of inputs and the efficiency of production techniques must be improved continually as a result of research. Finally, markets must be available for farm products, and communications with these markets improved. During the new Plan period, increased efforts will be made to bring about improvements in all of these areas, wherever this is possible.

8.10. A high proportion (about 37 per cent) of agricultural development funds will be used for programmes intended to help a large proportion of farmers to increase production efficiency. These include agricultural education and extension (K£2.2 million), research (K£3.2 million), credit for farmers in the small-scale farming and range areas (K£4.7 million) and livestock development programmes (K£4.5 million). Programmes of this type all form a part of a complementary package of programmes intended to develop the rural areas. For this reason, if the different component programmes are not well co-ordinated, the effectiveness of the overall rural development programme can be seriously impaired. It is essential not just to co-ordinate the agricultural programmes, such as agricultural extension, education, credit and land adjudication, but also to co-ordinate these with the non-agricultural rural programmes, including health, education, self-help and co-operatives, etc. During this Plan period efforts to increase the degree of co-ordination of these programmes will be intensified, in particular, through the Special Rural Development Programme described in Chapter 6.

Table 8.2 K£'000

Item	Estimated Expenditure	Projected Expenditure in Plan Period					
	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	Total
1. Land Settlement([a])	1,314	1,334	1,393	1,581	878	373	5,559
2. Transfer and Development of Large-Scale Farms ..	1,975	1,368	425	425	425	425	3,068
3. Land Adjudication.. ..	929	1,049	1,306	1,321	1,295	1,324	6,295
4. Livestock Development (excluding research, education and credit for range areas)	481	813	886	853	938	1,035	4,526
5. Research	294	674	640	644	661	598	3,217
6. Agricultural Education and Extension	226	380	495	493	544	287	2,199
7. Credit for Small-Scale Farmers and Farmers in Range Areas	266	686	837	1,050	1,125	1,050	4,748
8. Irrigation	653	535	696	476	509	310	2,526
9. Sugar	340	432	176	150	800	2,550	4,108
10. Tea	364	380	293	208	224	80	1,185
11. Wheat and Maize Storage..	226	200	500	163	—	—	863
12. Miscellaneous	200	200	300	300	300	200	1,300
Total	7,268	8,051	7,947	7,664	7,699	8,232	39,594

([a])Since the inception of the Million Acre Settlement Scheme Government expenditure on settlement administration and agricultural extension on settlement schemes, etc., has been classified as development expenditure. But now that these settlement schemes are essentially established, this expenditure is more of a recurrent nature. For this reason, it has been excluded from the figures in the table for any of the years in the Plan period; and, in order to maintain comparability, estimated expenditure of K£950,000 on these items in 1968/69 has been excluded.

8.11. The increased emphasis given to these programmes will involve not only an intensification of work along existing lines but also broadening their scope. For instance, up to the present time both agricultural extension and research have tended to concentrate on the more technical aspects of agriculture—such things as breeding better varieties of crops and teaching farmers how to improve yields. This work is essential and will be intensified. However, previous extension and research programmes have neglected the economic aspects of agriculture. This weakness has become more apparent recently, for farm profit margins have been under increased pressures: farmers have experienced some unfavourable price changes and more farmers, especially those who obtained land under the land transfer and settlement programmes, have high annual loan repayment obligations. For this reason, research in the fields of farm management and marketing will be expanded and farm management training programmes will be run for the extension staff, so that farmers can be advised on the business as well as the technical side of farming.

8.12. Another subject which will be given increased attention is farm mechanization research. This will be aimed at solving two major problems: first, an effort will be made to identify more efficient methods of using the range of farm equipment presently available in the country. In particular, alternative cultivation techniques will be studied with a view to finding cheaper methods of cultivation and methods which improve soil water conservation. Secondly, a wide range of equipment which is not presently in use in the country, but which is used successfully in other countries, and appears to be suitable will be tested under Kenya field conditions. In this testing programme, particular emphasis will be given to studying the suitability of a range of equipment which might help to fill the rather large gap that exists between the extremes of large four wheeled tractors on the one hand and hand cultivation on the other.

8.13. Supplies of agricultural credit will also be increased, both through the AFC and the co-operative movement. For this Plan period K£4.7 million of development funds have been allocated to agricultural credit programmes for small-scale farmers and farmers in the range areas. In addition to this, the AFC should have available about K£2.4 million from its own resources for these credit projects. The supply of credit would be increased even faster than this were it not for the fact that there are certain serious problems associated with administering agricultural credit, especially short-term credit for small-scale farmers. The administrative costs involved in supplying small short-term loans to small-scale farmers can amount to an excessively high proportion of the value of the credit issued and it is normally unduly expensive to set up a special credit agency to handle this type of credit. For this reason, it is not expected that the AFC will be able to handle a major short-term credit programme for small-scale farmers. But a large part of the administrative machinery necessary for supplying short-term credit to small-scale farmers already exists in the co-operative movement and a start has been made recently on what appears to be a very promising co-operative credit programme. Eventually it is hoped that the majority of small-scale farmers will be able to obtain short-term credit in this way. However, it will take time for the co-operatives to develop the necessary executive capacity. Unfortunately, this means that many small-scale farmers will continue to experience difficulty in obtaining short-term credit in the next few years before the co-operative credit scheme is fully developed.

8.14. Much greater emphasis will also be given to developing livestock production both through expanding the livestock research, education and extension programmes and by means of a special development programme for the range areas. During the Plan period about K£4.5 million of development funds will be used for livestock development programmes (excluding related research, education and credit).

8.15. In order to improve communications throughout the country a major road development programme estimated to cost about K£43 million will be undertaken in the new Plan period. Many of these improved roads will be of direct benefit to the agricultural sector, some of them being planned specifically for this purpose. For instance, an improved road system to serve the recently established settlement schemes is planned at a cost of about K£1.6 million, another K£1.7 million will be spent on a tea roads programme, while K£3.6 million will be spent on improving roads in the sugar producing areas. These programmes are discussed in more detail in Chapter 14 on Transport and Communications.

8.16. In addition to the programme of road development, bulk handling facilities will be installed so that cereals can be transported more cheaply between the producing areas and the port of Mombasa. Storage facilities for wheat and maize will also be expanded, partly to tie with the bulk handling scheme. Increased storage facilities are expected to involve Government expenditure of about K£860,000 during the Plan period.

8.17. Changes are also being made in agricultural marketing and pricing policies in an attempt both to reduce the prices and increase the availability of farm inputs and to enable farmers to obtain the best possible prices for their products. Marketing and pricing problems are perhaps the most stubborn problems hindering rapid agricultural development and no easy solutions are in sight for some of them. In certain cases, especially where inputs are imported or farm products are sold in world markets, it may prove impossible to prevent adverse price changes. This adds emphasis to the need for increased efficiency both in agricultural production itself and in marketing and transport. For example, the world market price of pyrethrum is expected to decline as a result of competition from synthetic insecticides produced in the developed countries. Kenya's pyrethrum can remain competitive in world markets only if farmers are able to accept a lower price through increasing production efficiency. For this reason, vigorous efforts are now being made with a view to increasing pyrethrum yields per acre and raising the pyrethrins content of the flowers.* Nevertheless, it is expected that some of the less efficient producers will be obliged to give up pyrethrum production. Another example is maize. Kenya intends to expand maize production substantially and increase the volume of maize exports. This may mean that farmers will have to accept a slightly lower price for their maize. The prices of some inputs used in maize production, such as imported farm machinery, may also continue to rise. However, it should still be possible to produce maize profitably in the face of these price changes through increasing efficiency. Yields are being raised steadily through the adoption of better production methods, especially the use of hybrid and synthetic varieties of maize. The cost of transport will be reduced with the installation of bulk handling facilities and better storage, and marketing margins are being lowered through reorganizing the system of maize marketing.

8.18. In order to increase agricultural productivity the prices of certain inputs, such as phosphatic and nitrogenous fertilizers, are being subsidized at present. Prices of important inputs such as these will continue to be subsidized in future, as changing circumstances require. The prices paid to farmers in the last few years for wheat and maize have also been heavily subsidized in order to meet losses made on export sales. The Government

* Pyrethrins are the active insecticidal constituents of pyrethrum.

does not intend to continue to subsidize farm product prices in this way as a long-term measure. However, it is expected that the price of maize will be subsidized at a reduced rate over about the next two years before the farm gate and export parity prices have been brought into line.

8.19. With a view to improving efficiency, the policies and structures of the agricultural marketing system will be subjected to more thorough appraisal and changes made where appropriate. For example, statutory boards are heavily involved in agricultural marketing. However, in some instances, these may not be the most suitable type of marketing organization. Even where this is so they may have adopted inefficient marketing policies. For instance, it is expected that some measure of decontrol will be introduced into maize marketing in order to reduce the share of the final price being absorbed by the marketing system. Likewise, the present arrangements for marketing cotton appear to be unreasonably expensive and the operations of the Cotton Lint and Seed Marketing Board are being examined with a view to reducing the cost of marketing cotton.

8.20. Co-operatives are also much involved in agricultural marketing. The Government intends to increase its efforts to develop the co-operative movement; for co-operatives have a most important role to play in agricultural development. However, a high proportion of co-operatives have been inefficiently managed, although strenuous efforts are now being made to remedy this situation; but where alternative market institutions exist and co-operatives cannot compete effectively, the Government does not intend to give them any special protection or monopoly powers, etc.

8.21. More attention will also be paid to identifying all possible market outlets, both in Kenya and abroad, so that these can be exploited to maximum advantage. Partly for this reason, a new Economics and Market Research Division has been established in the Ministry of Agriculture. In certain cases it will be possible to expand market outlets locally through establishing or expanding the capacity of industries which use agricultural products as their raw materials. For example, the demand for both sugar and cotton is being enlarged in this way.

8.22. Primarily because of the problems of finding suitable markets, it will be possible to increase production of individual agricultural products only on a selective basis. For instance, some decline in the level of production of sisal is anticipated, mainly because of the effects of competitive synthetic products on world market prices. For the same reason, it will probably not be possible to expand pyrethrum production. Market conditions should permit a moderate increase in production for certain other commodities, including coffee, wheat and most types of livestock and livestock products. Rapid expansion is planned only for relatively few products, the most important being maize, rice, tea and sugar. The Government plans to make some quite substantial investments to facilitate increased production of these products. About K£2.5 million of development funds will be invested in irrigation schemes and this should enable Kenya to obtain by 1974 more than double the 1968 volume of rice production. About K£4.1 million of development funds will be invested in the sugar industry and this also is expected to lead to a doubling of production by 1974. About K£1.2 million of development funds will be invested in small-scale tea production and production should increase by more than 50 per cent (although most of this increase will be the result of investments made prior to the new Plan period and, conversely, most of the investments made in the Plan period will not lead to increased production until after 1974). Marketed maize production in 1974 is expected to be more than 70 per cent higher than in 1968. This will not necessitate substantial public investments apart from the bulk storage and handling facilities.

Land Transfer and Land Settlement

8.23. In 1960, before Africans were first allowed to farm in the former Scheduled Areas, about 3.0 million hectares of land were reserved for the exclusive use of Europeans. About 1.4 million hectares of this land were in the mixed farming areas, while 1.6 million hectares were used mostly for plantations producing coffee, tea or sisal, or for ranching.

8.24. Up to the present time Africans have not acquired a substantial interest in either the ranches or the plantations. To purchase a ranch or a plantation as an intact unit normally requires a substantial investment. Very few individual Africans have been able to raise this much capital. Although Africans could obtain the necessary capital more easily if they joined forces with others and formed a partnership, a company or a co-operative society, the amount of capital required by each person is still high and few ranches or plantations have been acquired in this way. Furthermore, neither the ranches nor the plantations are very suitable for subdivision into small-scale farms. During the new plan period the same conditions which have previously hindered rapid Africanization of the ranches and plantations will continue to prevail. For this reason it is expected that only a small proportion of the ranches and plantations will be acquired by Africans in the next few years. (However, a major ranch development programme will be implemented in the traditional African pastoral areas.)

8.25. In contrast to the ranching and plantation areas, a high proportion of the land formerly used for European large-scale mixed farms has been taken over by Africans. This has been the case both because farms in these areas are normally suitable for sub-division into small-scale farms and because the purchase of an intact mixed farm does not require nearly such a large investment as the purchase of a ranch or a plantation.

8.26. By the middle of 1968, about 32,000 families had been settled on small-scale farms under the Million Acre Settlement Scheme. This has involved the use of about 400,000 hectares of land*. In addition, about 13,000 families have been settled on small-scale farms under the Squatter Settlement Programme. About 60,000 hectares of land, mostly in the mixed farming areas of the former European areas, have been used for this programme. These two programmes together have thus involved the sub-divisional resettlement of about one third of the mixed farming land in the former European areas.

8.27. In addition to sub-divisional resettlement, about 1,200 large-scale farms, mostly in the mixed farming areas such as the Trans Nzoia, Uasin Gishu and Nakuru Districts, have been taken over by Africans as intact units. This has involved about another 400,000 hectares of land. Most of these farms have been purchased by individuals or groups of Africans who have received financial assistance from public institutions, especially the Agricultural Finance Corporation (AFC) and the Agricultural Development Corporation (ADC). As well as the areas mentioned so far, about 57,000 hectares of land have been acquired by the Government at Ol Kalou. At present, this is being run as large-scale units under a scheme administered by the Settlement Fund Trustees. Thus in total, about 900,000 hectares of land, or roughly two thirds of the former European large-scale mixed farming areas, have been transferred out of European occupation and this has been about equally divided between sub-divisional resettlement on small-scale farms and the transfer of intact large-scale units.

8.28. During the new Plan period, sub-divisional resettlement and the transfer of intact large-scale farms will be continued, but at a slower rate, especially when several existing programmes are completed in about 1970. There are several reasons for this change in policy. Kenya has been using a very high proportion of her available agricultural development funds for the land transfer programme. However, the economic benefits from doing this are marginal at best. The most that can be expected is that there will be a modest increase in agricultural productivity subsequent to the transfer, and in many cases, production will decline, at least in the period immediately after the transfer. There may be some increase in the amount of labour employed on the land after the transfer, although this is by no means always true. But the financial transactions involved in transferring land in this way have a substantially adverse effect on the balance of payments. There are also many better ways in which the available funds can be used to promote agricultural development. Finally, a number of problems have been experienced on the farms transferred already and time is required in which to consolidate the changes made so far before embarking on any new large programme.

* The area involved is almost 500,000 hectares if some co-operative farms and ranches, which are officially part of the scheme, are included.

8.29. Not only will the overall rate of land transfer and land settlement be slowed down during the new Plan period, but some changes will also be made in the methods of implementing land transfer and land settlement. These changes are described in the sections that follow.

Settlement Schemes

8.30. There are several types of agricultural settlement scheme in Kenya—those administered by the Ministry of Lands and Settlement, including the High and Low Density Schemes, the Harambee Schemes and the Squatter Settlement Programme, and the old-established settlements originally set up by the African Land Development Board (ALDEV), but now administered by the Ministry of Agriculture. The land used for these settlements almost all falls within the boundaries of the former Scheduled Areas, except for the ALDEV schemes which were established on unoccupied land outside of the Scheduled Areas.

8.31. The Million Acre Settlement Scheme was started in 1961 and this will be largely completed by 1970. This involved settling people on relatively large farms, the average farm size being about 12 hectares. This was also quite an expensive scheme, for the average cost of establishing each small-scale farm was in excess of K£700. The Squatter Settlement Programme, which was started in 1965, entailed settling people on much smaller farms than those on the Million Acre Scheme, for the average farm size on these settlements is only about 4.5 hectares. The settlers on the Squatter Settlement Schemes, in contrast to those on the Million Acre Scheme, were also not provided with large development loans. Likewise, the administrative procedures followed in establishing Squatter Settlements were much less expensive than those on the Million Acre Scheme.

8.32. During this Plan period, development expenditure on land settlement is projected at K£5.6 million (*see* Table 8.3). Of this amount, K£2.0 million will be required for completing the Million Acre Scheme, K£283,000 for completing the Harambee Settlement Programme and K£3.3 million for new settlement schemes. Major emphasis will be given to a new settlement programme designed to settle 33,000 unemployed and landless squatters.

8.33. In the past, several different Government agencies have been involved in establishing new settlement schemes. In future, all settlement schemes will be administered by one agency, the Department of Settlement, until they have been established for a sufficiently long period to manage with the normal Government services provided in any other comparable agricultural area.

DEVELOPMENT EXPENDITURE ON LAND SETTLEMENT

Table 8.3 K£'000

Item	1969/70	1970/71	1971/72	1972/73	1973/74	Total for Plan Period
THE MILLION ACRE SETTLEMENT SCHEME([a])						
Purchase of Land	150	—	—	—	—	150
Development Loans	500	500	300	—	—	1,300
Sugar Settlement Schemes ..	286	50	50	50	50	486
Coast Settlement Office ..	8	8	8	8	8	40
Total	944	558	358	58	58	1,976
HARAMBEE SETTLEMENT						
Development Loans	140	12	—	—	—	152
Administrative Costs.. ..	50	23	23	20	15	131
Total	190	35	23	20	15	283
NEW SETTLEMENT SCHEMES	200	800	1,200	800	300	3,300
GRAND TOTAL ..	1,334	1,393	1,581	878	373	5,559

([a]) *See* the footnote to Table 8.2.

The Million Acre Settlement Scheme

8.34. The Million Acre Settlement Scheme is by far the most important settlement programme administered by the Ministry of Lands and Settlement. This scheme was started in 1961 and is now almost completed, the majority of the settlers having been established on their farms between 1962 and 1964. When the programme is completed, probably in 1970, over 34,000 families will have been settled on 135 settlement schemes covering about 500,000 hectares of land. These schemes will comprise 35 Low Density Schemes with an average farm size of 15 hectares, 84 High Density Schemes with an average farm size of 11 hectares and 16 large-scale co-operative farms or ranches. Most of the farms on the Low Density Schemes have target cash incomes of K£100 per annum, while the target incomes on the High Density Schemes vary between K£25 and K£70 per farm. The co-operative farms and ranches are run as large-scale units primarily because they are situated in areas where the land is considered to be unsuitable for small-scale farming. In total these large farms and ranches are expected to include an area 72,000 hectares of land and provide a living to about 1,700 farmers.

8.35. By the middle of 1968, all of the Low Density Schemes had been started, while only five of the High Density Schemes and three of the large-scale co-operative farms remained to be established. By the same date, almost K£25 million had been spent on this programme. Of this, roughly K£9.7

million had been obtained from grants given by the British Government, K£11.3 million from loans received from a variety of overseas sources and about K£3.6 million from Kenya Government funds. During this Plan period, about K£2.0 million will be spent in completing the Million Acre Scheme (excluding the recurrent costs for administration, extension, etc.). Of this amount only K£150,000 will be used for purchasing the land required to complete the scheme; about K£1.3 million will be used for development loans for settlers and settlers' co-operative societies; and about K£486,000 for the Sugar Settlement Schemes, mainly for improving the arrangements for harvesting and transporting cane.

8.36. With any new scheme of this type, and especially one that was implemented so rapidly and on so large a scale as the Million Acre Scheme, a number of problems are bound to arise. In order to identify these problems and suggest possible solutions, a joint Kenya/British Government Mission, the Van Arkadie Mission, was appointed in 1966 and they submitted a report late in that year. While this Mission, by and large, made a favourable report on the Million Acre Settlement Scheme, they did suggest a number of ways both in which it could be improved and through which experience gained from this scheme could be used to improve the planning of new settlements. Following the recommendations of this Mission, a number of changes are being made. In particular, the Government is presently negotiating with the British Government with a view to rephasing the repayment of British loan money used for the settlement schemes on terms that are more reasonable, given the ability of the settlers to repay.

The Performance of the Settlement Schemes

8.37. Most of the problems experienced on the settlement schemes affect the levels of production and loan repayments achieved by the settlers. Over the past few years both of these have improved, although there is still room for much more improvement. Between 1964/65 and 1966/67 surveys conducted by the Statistics Division of the Ministry of Economic Planning and Development on a large sample of settlement schemes indicated that the average value of production per hectare increased from KSh. 160 in 1964/65 to KSh. 247 in 1965/66 and KSh. 299 in 1966/67. Likewise, the proportion of this output that was sold, rather than being retained on the farm, rose from only 30 per cent in 1964/65 to 48 per cent in 1966/67. But despite this substantial improvement, the surveys showed that there was a very high level of variability between the performances of the individual farms. While the proportion of farms reaching the target income levels increased from only 10 per cent in 1964/65 to 17 per cent in 1966/67, and some farmers obtained incomes considerably in excess of the target levels, a high proportion of the farmers incurred a cash deficit in all three years.

8.38. The picture presented by this survey data is rather similar to that shown by the loan repayment data from the settlement schemes; while the proportion of loan repayments in arrears has declined, the amounts outstanding are substantial. At the end of 1966 a total of K£1.7 million had been billed to settlers, but 55.7 per cent of this amount had not been paid at that date and 23.1 per cent had been in arrears for one year or longer. At the end of 1968 a total of K£3.9 million had been billed to settlers, but 43.7 per cent of this amount was in arrears and 23.7 per cent had been outstanding for one year or more. Thus while there had been some improvement in the proportion of loan repayments paid, the absolute amount outstanding had grown considerably. At the end of 1966 more than K£900,000 was in arrears, whereas this amount had grown to K£1.7 million by the end of 1968. Similarly, the amount outstanding for 12 months or more was only about K£400,000 at the end of 1966 but this had increased to K£900,000 by December, 1968.

8.39. The Department of Settlement has increased its efforts to collect loan repayments and some chronic defaulters have been evicted. This policy will be continued, although the loan repayment performance of the schemes cannot be expected to be satisfactory unless the productivity of the settlement farms continues to grow. Even though the average level of performance on the settlement schemes may be satisfactory, far too high a proportion of the settlers obtain substantially below average results. In order to bring about the necessary improvement a number of problems will have to be tackled. These can be conveniently grouped into those relating to production, marketing and transport, and to administration and supervision. The more important of these problems are discussed below.

Production Problems

8.40. In order to increase production on the settlement schemes the Government intends to continue both to help to improve the availability of resources needed in production and to increase farmers' management skills. Probably the single most important input in short supply has been high grade dairy cattle. During 1968 it was estimated that an extra 27,000 high grade dairy stock, or almost one animal per settler, were required on the settlement schemes if all of the settlers were to keep the number of animals suggested in their planned budgets. If this shortage could be rectified production could be increased substantially. Unfortunately, this shortage is nationwide and it will take time for the country to build up the national dairy herd. In the meantime other less profitable types of livestock, such as sheep and beef cattle, will have to be kept by some settlers in place of dairy animals.

8.41. Most of the farmers on the settlement schemes rely on contractors to cultivate their crop-land with tractors. However, sufficient machinery has not always been available and some settlers have had difficulty in getting their land cultivated. In order to encourage contractors to operate on the schemes the Department of Settlement has decided to extend the period of time over which machinery contractors are required to repay loans issued to them. In addition, where potential contractors are found but they have insufficient experience with operating tractors, the Department now sends them to mechanization training courses. If they complete these successfully they are then able to obtain loans to purchase one or two tractors and establish themselves on a small scale as machinery contractors.

8.42. Water supplies, both for domestic and farm use, have also been a problem on many schemes. In particular, many farmers have had to walk their dairy stock over long distances to water every day. So far, water reticulation schemes have been installed on 10 settlement schemes and they are in the process of being installed on another 22 schemes. In addition water reticulation schemes are being designed for another 23 schemes. Eventually it is intended that all of the settlement schemes will have reticulated water supplies.

8.43. In addition to actual shortages of inputs many farmers have experienced difficulty in buying them. Long-term credit for land purchase and medium-term credit for buying livestock and improvements have generally been adequately provided for. The main difficulty has been insufficient short-term credit for the purchase of seeds, fertilizers, drugs and animal feeds, etc. Settlers have been able to obtain some short-term credit either as advances on the Minimum Financial Return (MFR) for wheat and maize or from their co-operative societies*. But serious problems have been experienced in trying to administer advances on MFR and these have been available only for wheat and maize. Likewise, few of the co-operative societies have had either the financial resources or the management skills to organize short-term credit for their members. Unfortunately, there is no easy solution to these problems but it is expected that there will be a gradual improvement in supplies of short-term credit. The issues involved are discussed in more detail in the section of this chapter which deals with agricultural credit.

8.44. In addition to taking measures designed to improve the availability of inputs and short-term credit, the Government intends to continue to improve the extension services on settlement schemes so that farmers can develop their management skills. This is especially important because the majority of the settlers have borrowed a very high proportion of their farming capital and can only meet their loan repayment obligations and obtain reasonable incomes if they manage their farms on sound commercial lines.

Marketing and Transport Problems

8.45. Farmers on settlement schemes have experienced many problems in finding markets at reasonable prices for their products. The possible future problems in marketing pyrethrum are perhaps worth special mention for this

* Under the terms of the Minimum Financial Return, the Government will pay approved growers a fixed minimum return per hectare of wheat or maize, in the event of a crop failure.

is a most important crop on the settlement schemes and synthetics threaten to disrupt the market. However, these sorts of problems are not unique to settlement schemes, and they have been discussed earlier in this chapter. Here attention is directed at the problems of improving the organization of the marketing process on settlement schemes and improving communications.

8.46. Most of the products sold from settlement schemes are marketed through the settlers' co-operative societies. This is expected to continue to be the case, even though many of the co-operative societies on settlement schemes have suffered from problems of poor management. However, more and more of the settlement co-operative societies' staff are being sent on courses in business management and book-keeping, etc. Furthermore, the staff of the Department of Co-operative Development are giving greater attention to the needs of these societies. These measures are expected to bring about a steady improvement in the efficiency with which the settlement co-operatives are managed.

8.47. Poor communications, especially poor roads, have also affected the settlement schemes. In order to improve communications the Government intends to make major improvements to the roads serving the settlement areas. It is expected that a start will be made on this programme during 1970 and that K£1.6 million will be spent on these roads during the Plan period. Another major transportation problem has been experienced on the sugar settlement schemes. On these schemes, it has proved to be very difficult to organize the transportation of cane from the fields to the factory. This (in combination with some factory operating problems) has resulted in the build up of substantial acreages of over-mature unharvested cane. Transport has been poor both because suitable transportation equipment was in short supply and because the management of the transport system was poor. The Government is now making available a much larger supply of equipment and is creating a much stronger sugar management organization, and the rate of harvesting cane has increased substantially in recent months.

Problems of Administration and Supervision

8.48. When the Million Acre Settlement Scheme was originally planned it was intended that the Department of Settlement would administer the schemes for the first two and a half years of their existence, but that after this time they would receive only the normal amount of Government services provided to comparable progressive small scale farming areas, with the exception that some extra provision would be made for loan repayment collection. Later it was agreed that it was necessary to continue supervision for a further two and a half years, although at a reduced level: the period of "extended supervision". Since these decisions were taken experience has proved that it is not always realistic to completely withdraw supervision after the initial five year period. This may be realistic on some of the more successful settlement schemes but on others some supervision is required after the first five years. The exact way in which supervision will be phased out is being considered by the Government at the present time

The Harambee Settlement Programme

8.49. In the Development Plan 1966-1970 mention was made of the establishment of sub-divisional settlement schemes on 32,000 hectares of land. This *Harambee* Settlement Programme was expected to have been completed between 1966 and 1970. In the event, considerable delays were experienced in implementing this programme and a start was made only at the beginning of 1969. Furthermore, it has been decided to reduce substantially the size of the programme. It will now consist of just one settlement scheme at Ol Arabel. consisting of an area of about 6,500 hectares of land. This land was purchased in early 1969 and most of the settlers will take up their holdings during the latter part of 1969. The exact details of the number of small-scale farms to be established is not yet finalized. However, there will probably be some 420 farms with an average size of about 15 hectares. These will be based on a maize and cattle economy and each plot will be planned to produce a target cash income of between K£40 and K£75 per annum. During the Plan period it is expected that K£283,000 will be spent on this scheme (*see* Table 8.3).

The Squatter Settlement Schemes

8.50. In 1965 the post of Special Commissioner for Squatters was established within the Ministry of Agriculture, although subsequently this was transferred to the Ministry of Lands and Settlement. The Commissioner has registered almost 46,000 squatters so far and it is intended that all of these people will be placed on squatter settlement schemes. By the end of 1968 approximately 13,000 of these squatters had been settled on a total of 29 squatter settlement schemes in the Central, Coast, Eastern and Rift Valley Provinces. These schemes included a total area of about 59,000 hectares of land, or roughly 4.5 hectares per settler. (Each holding was in fact based on the equivalent of 2.4 hectares of arable land). The settlers are expected to be able to do most of their cultivations using family labour. They are provided with small loans to help them establish crops, but no special arrangements have been made for supplying them with development loans for the purchase of livestock, housing, fencing or other improvements. So far the squatters settlement schemes have been established only on a rather temporary basis. The settlers have been provided with temporary occupation licences and, in many cases, the individual plots have not been finally demarcated. It is intended that all of the settlers will eventually purchase their land and be provided with freehold title deeds. During the first year of the new Plan period all of the plots on the squatter settlement schemes already established should be finally demarcated. A start will also be made on drawing up the registered title deeds for each plot.

8.51. Of the 46,000 squatters registered by the Commissioner for Squatters about 33,000 have not yet been settled. It is expected that all of these people will be settled during the new Plan period. The number of settlement schemes to be established and their exact location have not yet been finalized. Some of these settlement schemes may be established on State land at the Coast, some on large-scale farms in the former Scheduled Areas, including some mis-managed farms, and some of the old-established ALDEV Settlement Schemes may be extended. Until the exact nature of this programme has been decided it is not possible to make an accurate estimate of the cost involved.

Transfer and Development of Large-Scale Farms

8.52. During this Plan period K£3.1 million of development funds have been allocated to projects involving the transfer and development of large-scale farms. This includes K£1.3 million for programmes administered by the ADC, K£1.5 million for land purchase and development loans for large-scale farmers to be issued through the AFC, and K£250,000 for development of the Ol Kalou Salient. The AFC programmes are discussed in a later section on agricultural credit.

Ol Kalou Salient

8.53. The Ol Kalou Salient comprises an area of about 57,000 hectares of land, most of which was purchased by the Government during 1964 and 1965. So far this area has been operated as 19 large-scale farms under central management provided by the Department of Settlement. The scheme has been managed in this way primarily because the land at Ol Kalou was considered to be unsuitable for sub-division into small-scale farms. About 2,000 families or settlers live on the Ol Kalou Scheme. The Department of Settlement has made a substantial loss on its farming operations at Ol Kalou and an appraisal team has been appointed recently to examine the reasons for past losses, recommended necessary improvements and suggest the best method of transferring control of the farms to the settlers. The report of this appraisal team is not yet available, and at present the exact nature of the changes in organization that will be made at Ol Kalou and the way in which the settlers will eventually acquire control are both somewhat uncertain. By the middle of 1968 about K£1.7 million had been invested in the Ol Kalou Salient. Between that date and the end of the new Plan period it is expected that another K£250,000 will be invested at Ol Kalou in order to do some necessary capital development and establish the scheme as a profitable concern.

Programmes Administered by the Agricultural Development Corporation

8.54. Development funds amounting to K£1.3 million have been allocated to the ADC for this Plan period. This includes K£950,000 required to complete the Stamp Land Purchase Programme, K£150,000 for development of National Farms and other farms retained by the ADC, and K£200,000 for other agricultural projects.

8.55. Under the Stamp Land Purchase Programme agreed between the Kenya and British Governments it was decided that the ADC should be provided with K£3.6 million. This is expected to cover the cost of purchasing 121 large-scale farms from British farmers in the mixed farming areas of the former Scheduled Areas. The total area of these farms is estimated to be about 69,000 hectares, or about 570 hectares per farm. The programme was started in 1967 and by the end of June 1969 the ADC had purchased 71 of these farms with a total area of 49,000 hectares, at a cost of about K£2.5 million. The ADC should purchase the remaining 50 farms during the 1969/70 financial year. This will involve about 20,000 hectares of land and cost about K£950,000. When this programme has been completed it is not expected that the ADC will be involved in transferring any more farms during the rest of the Plan period.

8.56. Most of the farms purchased by the ADC will be leased to citizen farmers. However, some of the farms acquired by the ADC may be so large that they require more capital and management skill than the new tenants can be reasonably expected to provide. Where this is so, the large-scale farms will be split into several more manageable units before they are leased to tenants. In the first instance, the farmers taking over these farms will be offered a lease. If after a few years a tenant has demonstrated that he can operate his farm successfully, he may be given the opportunity to purchase the farm.

8.57. Not all of the farms acquired by the ADC will be leased to tenants. The ADC will retain a few of them, which together with five established National Farms will be used for the production of certain important agricultural inputs which are in short supply at present. These include high quality breeding stock, especially cattle and pigs, and improved crop seeds. Capital development on these farms is expected to involve the use of K£150,000 of development funds over the Plan period.

8.58. In addition to the projects outlined above, the ADC will participate in a number of new agricultural enterprises during this Plan period. These include a major dairy heifer production scheme to be run in conjunction with the commercial banks and private farmers. K£200,000 of development funds have been tentatively allocated to the ADC for these projects for the Plan period. Finally, the ADC will continue to play its present role as the agency for Government participation in certain agricultural processing industries such as the two recently established sugar factories at Chemelil and Muhoroni.

Land Adjudication and Registration

Introduction

8.59. It has long been Government policy that the land tenure system in traditional African areas of Kenya should be changed so that farmers can be provided with the title deeds to their land and, where necessary, so that scattered fragments of land can be consolidated into one holding. This change has manifold benefits. Time and money no longer need be spent on land litigation, nor is it necessary for farmers to waste time travelling between numerous scattered plots of land. The reform acts as a powerful stimulus to agricultural development. Farmers are more willing to make long-term improvements to their land; and they can obtain agricultural credit more easily to help them effect these improvements, for the land title deeds provide good security for agricultural loans. Because agricultural development proceeds more rapidly after land rights have been adjudicated, the reform also tends to encourage a much higher level of employment in the rural areas.

8.60. The work of converting the customary tribal land tenure system into a modern legal system with registered land title deeds was undertaken first in Central Province in 1956. Land holdings in this area were often severely fragmented. In consequence the land reform became known as Land Consolidation, for the consolidation of each farmer's holding into one parcel of land was the most obvious feature of the work. Nevertheless, the adjudication of each farmer's rights in the land and the preparation of a land register based on these adjudicated rights were essential parts of the reform. In the early 1960s this land reform programme was extended to other parts of the country. In many of these new areas the land was not fragmented and consolidation was not necessary. The main features of the reform then became adjudication and registration of rights in the land rather than the consolidation of fragmented holdings.

8.61. During the first ten years of this reform programme about 700,000 hectares of land were registered. However, in the mid-1960s it was decided that the land adjudication programme should be speeded up (and less emphasis be placed on resettlement programmes in the former Scheduled Areas, which at that time were absorbing a major share of the Government's expenditure on agriculture). To speed up the programme in this way required large increases in staff and funds. It was also necessary to streamline the procedures involved. With a view to resolving the difficulties that were likely to arise in this rapid expansion of work, the Government appointed a mission of inquiry in November 1966 and this was required to advise upon methods of accelerating the programme and to recommend an expanded future adjudication programme. In April, 1966, the Mission, under the chairmanship of Mr. J. C. D. Lawrence, submitted its report.

8.62. The Lawrence Mission made detailed recommendations for simplifying the process of land reform, especially in areas where the land was not fragmented. They also made proposals for the reorganization and expansion of the Land Adjudication Department (which at that time was called the Land Consolidation Department) and suggested means of improving the procedures adopted by the Departments of Lands and Surveys in preparing registry maps and registering titles. The mission also proposed that adjudication should be given priority in those areas where the greatest benefits were expected to result from the reform. The mission recommended a detailed land adjudication programme for the four year period 1966/67 to 1969/70 and this represented a substantial increase in the annual rate at which land adjudication was taking place.

8.63. Most of the recommendations made by the Lawrence Mission were accepted by the Kenya Government and it is expected that a sessional paper outlining the Government's views on these recommendations will be published in the near future. It was decided that the accelerated land adjudication programme proposed by the mission should be implemented and the British Government agreed to provide a loan to finance this. The Lawrence Mission's programme involved adjudicating 3.1 million hectares of land and was scheduled for the period 1966/67 to 1969/70. It was expected to cost K£3.4 million. Of the total area involved, 1.1 million hectares were in the high rainfall agricultural areas, while 2.1 million hectares were in lower rainfall pastoral or range areas. The programme suggested for the range areas involved registering ranches under group ownership. This procedure had not been adopted previously and necessitated the enactment of new legislation.

8.64. Table 8.4 shows the areas of land adjudicated up to 1968/69 and the projections for the Plan period*. These figures show that it is expected that the Lawrence Mission's targets for the agricultural areas will be slightly exceeded (1.13 million hectares compared with a target of 1.05 million hectares) while there will be a substantial shortfall in the range areas (983,000 hectares compared with a target of 2.1 million hectares).This shortfall in the range areas has arisen largely because of delays experienced in passing the legislation that was required before ranches in the range areas could be registered under group ownership. Now that this legislation has been passed, it is expected that adjudication can proceed very quickly in the range areas, for adjudication in these areas is a much simpler operation than that in the

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* A detailed land adjudication programme by district for the Plan period is given in Appendix Table 1.

small-scale farming areas; it has been estimated that with a given amount of resources between 30 and 50 times as much land can be adjudicated in the range areas as in the agricultural areas.

8.65. During the new Plan period the land adjudication programme will be continued on a substantial scale. More than 7.4 million hectares of land should be adjudicated during this period. This will involve about 2.5 million hectares of land in the agricultural areas and 4.9 million hectares in the range areas. By the end of the Plan period this will mean that the land rights will have been adjudicated on more than nine million hectares of land, affecting the land in almost 30 districts of Kenya, in some of which adjudication will have been completed. This substantial adjudication programme should create a sound foundation for subsequent agricultural development in both the agricultural and the range areas of Kenya.

8.66. The land adjudication programme during the Plan period is expected to cost about K£6.3 million. The programme for the first year of the Plan period is being financed with a British loan. Possible external sources of finance for the adjudication programme for the last four years of the Plan period are being studied by the Government.

Agricultural Credit

8.67. Agricultural credit is available to farmers in Kenya from a variety of sources. These include the Agricultural Finance Corporation (AFC), the Settlement Fund Trustees, the Kenya Tea Development Authority (KTDA), co-operative societies, private traders and the commercial banks. Here attention is directed primarily at the public sector agricultural credit programmes, especially those administered by the AFC. In recent years, the AFC has been developed as the major public body administering agricultural credit. In keeping with this policy, the Land and Agricultural Bank of Kenya was recently absorbed by the AFC. This policy of channelling all public supplies of agricultural credit through the AFC will be continued except where special circumstances dictate otherwise. For instance, the KTDA will continue to supply small-scale tea growers with credit, for this is a highly convenient administrative arrangement since the KTDA can easily collect loan repayments by making deductions from leaf payments made to growers. Likewise, co-operative societies have certain advantages in administering short-term credit for small-scale farmers and it is expected that some public funds will be channelled through the co-operative movement for this purpose.

8.68. The Government is heavily involved in the field of agricultural credit, although in the long term it is expected that public credit institutions will become less important as other private credit organizations become better developed. Over this Plan period, development funds amounting to K£6.3 million have been allocated to agricultural credit. This includes K£2.3 million for small-scale farmers, K£2.4 million for farmers in the range areas, and K£1.5 million for large-scale farmers (*see* Table 8.5).

LAND ADJUDICATION AND REGISTRATION

AREAS REGISTERED AND COSTS INCURRED UP TO 1968/69 AND PROJECTIONS FOR PLAN PERIOD

Table 8.4

Period	Area Adjudicated			Expenditure
	Agricultural Areas	Range Areas	All Areas	
	Thousand Hectares	*Thousand Hectares*	*Thousand Hectares*	*K£ '000*
Before 1966/67	726	—	726	3,650
1966/67	186	—	186	612
1967/68	235	—	235	694
1968/69	249	222	471	929
Total up to 1968/69..	1,396	222	1,618	5,885
1969/70	461	761	1,222	1,049
1970/71	548	810	1,358	1,306
1971/72	524	975	1,499	1,321
1972/73	510	1,160	1,670	1,295
1973/74	510	1,177	1,687	1,324
Total for Plan Period ..	2,553	4,883	7,436	6,295
Grand Total by End of Plan Period	3,949	5,105	9,054	12,180

8.69. Several problems have been encountered in administering agricultural credit. In particular, it has not been possible to supply credit to more than a very small proportion of farmers and loan repayments received on many of the loans that have been issued have been seriously in arrears. The nature of these problems and methods of tackling them differ somewhat between different types of farmers. For this reason, agricultural credit programmes for large-scale and small-scale farmers and farmers in the range areas are discussed separately in the sections that follow.

Credit for Large-Scale Farmers

8.70. It has not generally been difficult to make supplies of credit available to Kenya's large-scale farmers. There are relatively few of them and, because the individual loans issued are usually quite large, the administrative costs have been reasonably low in relation to the volume of credit issued. Most large-scale farmers have had access to long-term loans for land purchase (usually repayable over 20 years), medium-term or development loans for purchasing livestock, machinery and farm improvements (these are usually repayable over periods ranging from 5 to 15 years), and short-term loans for the purchase of seeds, fertilizers, etc. However, short-term loans have usually been made as advances on the Minimum Financial Return (MFR) on wheat and maize and have not been available for inputs required by other farm enterprises. During the new Plan period, long- and medium-term loans for large-scale farms will be continued much along the present lines. However, because seasonal finance is required by farmers for a wide range of agricultural activities, this will no longer be restricted to advances on MFR for wheat and maize. The exact nature of the changes to be made in the administration of short-term credit for large-scale farmers has not yet been decided, although it is intended to move towards a situation where the AFC can supply short-term credit to large-scale farmers for any worthwhile agricultural purpose.

8.71. At present, advances on MFR are made with the potential MFR payment (the crop insurance element) as the security for the loan and are restricted by the size of this guaranteed payment. In future, insurance and

DEVELOPMENT EXPENDITURE ON AGRICULTURAL CREDIT

Table 8.5 *K£'000*

Item	1969/70	1970/71	1971/72	1972/73	1973/74	Total for Plan Period
SMALL-SCALE FARMERS—						
IDA Credit Project (AFC)	281	315	340	164	—	1,100
Kisii/Kericho Project (AFC)..	40	30	30	12	—	112
Pineapple Loans (AFC)	10	—	—	—	—	10
Other New Loan Programmes (AFC) ..	—	5	30	224	400	659
Loans Issued through Co-operative Bank ..	—	50	100	125	150	425
Total for Small-Scale Farmers ..	331	400	500	525	550	2,306
FARMERS IN THE RANGE AREAS (AFC)—						
Medium Term Development Loans.. ..	200	210	300	325	260	1,295
Short Term Loans	130	189	208	230	200	957
Administrative Expenses	25	38	42	45	40	190
Total for Farmers in Range Areas..	355	437	550	600	500	2,442
LARGE-SCALE FARMERS (AFC)—						
Long and Medium Term Loans	318	300	300	300	300	1,518
TOTAL	1,004	1,137	1,350	1,425	1,350	6,266

credit arrangements will not necessarily be linked in this way. Farmers may require seasonal finance but do not need any insurance to purchase drugs or feeding stuffs for dairy cattle, for example. Where this is the case, the AFC will be able to grant the credit without any associated insurance. Until the 1969 planting season, farmers were able to obtain the insurance provided by the MFR without paying any insurance premiums. In 1969 small premiums were introduced and in future farmers will be expected to pay appropriate premiums wherever they avail themselves of Government-sponsored insurance schemes. In order to keep the administrative costs of issuing advances on MFR down to a reasonable level these advances have been available only to farmers who, either individually or collectively, had some specified minimum crop area; recently this has been set at six hectares of either wheat or maize. This policy of issuing short-term credit through the AFC only to the larger farmers will be continued, for it is only in this way that the costs of administration can be kept within reasonable bounds. Proposed methods of administering short-term credit for small-scale farmers are discussed in a subsequent section.

8.72. While no very serious problems have been encountered in providing supplies of credit to large-scale farmers, arrears on loan repayments. especially repayments on development loans. have been far too high. At the end of June, 1968, for example, 62 per cent of the amount due from large-scale farmers for development loan repayments was in arrears by six months or more. This unsatisfactory situation has arisen for several reasons. In the past the AFC has not always been able to scrutinize loan applications very carefully, primarily because of a shortage of suitably trained and experienced staff. Thus some loans issued were not well planned and did not result in farmers obtaining sufficiently increased incomes to meet the loan repayment requirements. This problem should become less important, for the staff of the AFC is now being increased and staff training programmes designed to teach better methods of appraising loan applications are being given.

8.73. Arrears on loan repayments have been especially high on the large-scale farms recently acquired by Africans. Many of the new farmers have not had either enough capital or managerial skill to operate large-scale farms, and many Africans have had to enter into partnership with others or form co-operative societies so that they could raise sufficient capital. This has been especially true of the larger of the large-scale farms, for the larger the farm purchased the more capital required. Yet management of the larger farms is more difficult without the added complications of numerous partners all wanting a say in management. The poor repayment position has probably also been aggravated by the sometimes inappropriate repayment conditions that farmers were expected to meet. In particular, long- and medium-term loans have been repayable in equal annual or six-monthly instalments throughout the repayment period. However, it takes time to develop a farm to anything approaching its full potential, and these repayment conditions have made it difficult for farmers to meet their obligations in their first few years of farming.

8.74. In order to help the large-scale farmers to obtain increased incomes and to meet their loan repayment obligations, several steps are being taken. The extension services are being improved and a large-scale farmers training centre has been established at Thomson's Falls; another similar centre will be opened shortly at Eldoret. The possibility of rephasing loan repayments so that repayments can be reduced in the early years is also being considered. The Government is also contemplating the possibility of imposing supervision of management on these farms where loan repayments are seriously in arrears. Finally, the AFC will not in future encourage farmers to acquire the larger farming units. Because these farms are more difficult to manage they will be sub-divided into several more manageable units before resale.

8.75. During the new Plan period it is expected that about K£1.5 million of Central Government development funds will be provided to the AFC for issue as long- and medium-term loans to large-scale farmers. In addition the AFC expects to have available about K£3.0 million from its own revolving funds for use for the same purpose. Thus in total, about K£4.5 million should be available to large-scale farmers for land purchase and development loans. The way in which this will be allocated between land purchase and development loans is not yet decided, but it is expected that more emphasis will be given to issuing development loans rather than land purchase loans. In addition to long- and medium-term loans, it is expected that about K£4 million will be issued as advances on MFR on wheat and maize during 1969, and most of this will be used by large-scale farmers. By the last year of the Plan period the amount available for short-term loans to large-scale farmers should have increased to about K£6.0 million. This will not be used just for financing inputs required in wheat and maize production, but for seasonal inputs needed in a wide range of farming activities.

Credit for Small-Scale Farmers

8.76. The problems encountered in administering loans for small-scale farmers have been more serious. Not only have arrears on loan repayments been excessive but the AFC has been able to supply credit to only a small proportion of small-scale farmers. Recently, loan repayments due to the AFC from small-scale farmers have been in arrears by about 50 per cent. As with the loans made to large-scale farmers a major factor contributing to this has been the inability of the AFC to scrutinize loan applications thoroughly. However, as the AFC acquires more and better staff, this factor should become less important. With a higher level of staffing it should be possible for a farm budget to be drawn up in support of each loan application and this will permit the AFC to make better decisions. Nevertheless, there is at present a serious shortage of people who are competent to do this type of work and, despite the fact that intensive training programmes are being mounted, this shortage will prevent the AFC from expanding its operations very rapidly. Repayments have also been poor in the past because the AFC has not always been able to obtain adequate security for loans issued. However, with the rapid progress being made with the land adjudication and registration programme, more and more farmers will be able to provide better security for loans in the form of their land title deeds. Organizing the collection of loan repayments from a considerable number of small-scale farmers remains a serious problem. It is extremely expensive for the AFC to visit each small-scale farmer whose repayments are in arrears, but this is frequently necessary. However, as farmers continue to become more involved in producing market surpluses of farm products, it becomes relatively easier for them to make arrangements with marketing agencies to make loan repayments on their behalf.

8.77. Up to the present time, most loans issued to small-scale farmers have been medium-term development loans intended primarily to assist farmers in purchasing better livestock and other farm improvements (these are normally repayable over about five years). At the beginning of 1968, the AFC had lent about K£1 million for this purpose, although only about one per cent of Kenya's small-scale farmers had received these loans. With the exception of a few small-scale farmers who have been able to obtain advances on MFR for wheat and maize, the AFC has supplied virtually no short-term credit to small-scale farmers. Likewise, apart from land purchase loans made available by the Settlement Fund Trustees to help farmers to buy land on settlement schemes, small-scale farmers have not been able to obtain long-term loans for land purchase.

8.78. It is most important that a well administered system is developed for providing agricultural credit to Kenya's small-scale farmers. If farmers are to adopt improved farming methods, such as the use of improved livestock, fertilizers, better seeds and pesticides, etc., they will require credit, especially short-term credit, to help them purchase these inputs. However, this will not be easy. If credit were to be made available to the majority of small-scale farmers, an organization to administer credit many times the size of that existing at present would be required: it will take time to develop this administrative structure. Another problem is posed by the fact that the administrative costs associated with issuing small short-term loans to a large number of farmers are very large in relation to the value of the credit supplied; if a special credit agency such as the AFC were to issue short-term loans of perhaps only one or two hundred shillings each to small-scale farmers, the cost of administering each loan might be even as large as the loan itself. For this reason, it is not considered practical for the AFC to embark on a major short-term credit programme for small-scale farmers. However, the AFC will continue to administer medium-term development loans to small-scale farmers. At present the only feasible way of organizing a short-term credit programme for small-scale farmers appears to be through the co-operative movement. Agricultural co-operatives have the tremendous advantage that they already have most of the administrative machinery necessary for implementing a credit scheme and thus can administer small loans without incurring unreasonably high expenses. Also, the co-operatives can automatically collect repayments through making deductions from the value of farm produce sold through them. For these reasons, a start is being made now on a new co-operative credit scheme. This is discussed in more detail in a later section of this chapter on co-operatives. However, while it is felt that the best way to administer short-term credit for small-scale farmers is through the co-operative movement, possible alternative ways of administering credit will be studied in the next few years, especially in connection with the Special Rural Development Programme.

8.79. During the new Plan period development funds amounting to K£2.3 million have been allocated to agricultural credit schemes for small-scale farmers. K£1.9 million of this will be for programmes administered by the AFC, while K£425,000 has been tentatively allocated to the co-operative credit scheme; this will supplement normal advances from the Co-operative Bank (*see* Table 8.5). In addition, the AFC should have available about K£800,000 from its own revolving funds for issue to small-scale farmers. This should permit the AFC to increase its rate of lending from about K£400,000 in 1969/70 to K£700,000 in 1973/74. A substantial part of these funds will be associated with a smallholder credit project financed by the International Development Association of the World Bank—the IDA Credit Project. Under this project about K£1.1 million of IDA funds will be available for lending to small-scale farmers in 15 districts. Most of the loans will be available for a wide range of farm developments, although about K£160,000 will be reserved for financing the purchase of tractors. Loans will normally be made for amounts varying between K£75 and K£500 and will be repayable over periods ranging from five to seven years. About K£112,000 will also be available from West German sources for implementing a credit scheme very similar to the IDA Project in Kisii and Kericho. Farmers will be able to obtain loans under both the IDA Project and the Kisii/Kericho Project only if they can provide land title deeds as security for the loans. In areas where farmers do not yet have land title deeds the AFC will continue to make loans available from its own sources of funds.

Credit for Farmers in the Range Areas

8.80. The Government has completed negotiations with the International Bank for Reconstruction and Development and the Swedish International Development Agency for loan funds to develop the pastoral or range areas. The Plan provides for the establishment of an organization to market livestock, the expansion of the veterinary and range management extension services and the provision of credit to farmers in the range areas. This project is complemented by a United Nations Development Programme/Special Fund Project which involves a survey of the potential of the range areas, for a range research programme and for an educational programme for the people in the range areas. These developments will take place only after the completion of land adjudication in the range areas and the establishment of group ranches. This will involve several districts, including Kajiado, Taita, Machakos, Laikipia, Nakuru, Nyandarua and Nyeri.

8.81. The range credit programme will be administered by the AFC and will involve the issue of medium- and short-term loans to farmers in the range areas. About K£4 million will be available for these loans during the Plan period some K£2.4 million of this being funds provided to the AFC through the Central Government Development Budget, the remainder being obtained from revolving funds generated from repayments received from the original loans. The size of this credit scheme will expand quite rapidly over the Plan period, the annual rate of lending increasing from about K£350,000 in 1969/70 to over K£1 million in 1973/74. The money lent will be about equally divided between medium-term loans, repayable over 12 years and short-term loans, repayable over between one and two years. The medium-term loans will be available for a variety of uses, including the installation of water supplies, dips or spray races, stock handling facilities, machinery and fencing, while the short-term loans are intended to help farmers finance operating expenses and purchase immature stock.

Agricultural Extension

8.82. Given the need for increased agricultural productivity and for the widespread adoption of improved farming methods, agricultural extension has a major role to play. At the present time agricultural extension is one of the most important functions of the Ministry of Agriculture, absorbing much of the Ministry's available personnel and finance, and during the new Plan period even greater emphasis will be given to improving the extension services. Despite its importance, rather little is known about the effectiveness of agricultural extension. For this reason an evaluation of the extension services will be made early in the Plan period.

8.83. Until recently the agricultural extension services were organized under a number of distinct specialized departments or divisions, such as the Veterinary Department and Department of Agriculture. Under this system farmers were able to obtain advice from a range of specialists. The great majority of these specialists had concentrated on the largely technical problems of particular aspects of agricultural production and were not always well qualified to advise farmers on the most appropriate policies from the standpoint of the farm business as a whole. For example, extension workers advising farmers on the best methods of cotton production may have encouraged timely planting, for this leads to increased yields. However, in some situations this may not have been the best advice, for time spent on cotton may have been better spent on some more profitable alternative enterprize. The extension worker needs to be able to take an overall view of the farm business before he can appreciate this. With a view to overcoming problems such as this, the Ministry of Agriculture is now undertaking a major re-organization of the extension services. Instead of there being a number of specialized departments, each with a parallel organization in the field, a unified extension service is being created. Under this new system the farmer will be served by one extension worker who can give advice on a wide range of agricultural subjects. Specialist staff will still be employed, but they will be called in by the local extension worker only when he requires assistance. These generalized extension workers need to have not only a good understanding of a broad range of technical agricultural matters but also some training in the field of farm management. For this reason it is intended that the in-service training programme for extension staff will be expanded considerably, especially in farm management. This is being started immediately.

However, because of the present shortage of suitable farm management data and experienced farm management specialists, it will take time to develop the farm management training programme.

8.84. At present, a variety of extension methods are used. These include visits to individual farmers, demonstration plots, farm field days and the use of mass media such as the radio, films and printed material. It is hoped that the proposed evaluation of the extension services will lead to a better understanding of the relative merits of these alternative methods and thus suggest which of them should be given more emphasis. However, it is expected that more emphasis will be given to those methods which involve large numbers of farmers, for the extension staff cannot hope to visit all farmers individually, even with the increased levels of manpower and finance which will be available during the Plan period. Moreover, the steadily improving levels of education and literacy among the rural population are conducive to effective extension through mass media.

Agricultural Education and Training

8.85. The implementation of the agricultural projects and programmes outlined in this Plan will require an increase in the numbers and quality of trained personnel, both in the public and private sectors. In order to assess the requirements for trained manpower for the agricultural sector and suggest the most appropriate means of meeting this demand, an Agricultural Education Commission was appointed in 1966. This commission published its findings in August 1967 and the agricultural education programmes described here have been drawn up largely to meet the trained manpower requirements suggested by the Commission. Over the Plan period, it is expected that about K£1.6 million of Central Government development funds will be used for this expanded agricultural training programme (excluding expenditure on university level programmes). A detailed breakdown of this expenditure is given in Table 8.6, while the expected levels of enrolment and output at the different institutions are shown in Table 8.7. With the increasing complexity of agricultural education and training programmes it has become more important to ensure that co-ordination between the different programmes is improved. For this reason a Training Division has been established in the Ministry of Agriculture. In addition, it has been decided that a National Council for Agricultural Education will be set up and this will be responsible for co-ordinating the policies of agricultural education at all levels.

8.86. In order to meet the need for agricultural graduates in Kenya a faculty of agriculture is being established at the University College, Nairobi. The faculty is expected to accept its first enrolment of about 35 students in mid-1970 and the total enrolment should increase to about 130 by the end of the Plan period. In addition, the existing faculty of veterinary science is being expanded. These programmes are discussed in more detail in Chapter 17 which deals with education.

8.87. Intermediate level agricultural education in Kenya is designed to produce a wide range of non-professional agricultural personnel. At present this includes diploma level training at Egerton College and certificate level courses at the Embu Institute of Agriculture and the Animal Health and Industry Training Institute.

8.88. Egerton College offers three-year courses leading to diplomas in agriculture, animal husbandry, agricultural engineering and range management. Two year diploma courses in dairy technology are also given. In addition, a number of short courses, usually in connexion with in-service training programmes for Government agricultural staff, are given, mostly in vacation periods. In recent years, the college has expanded very rapidly and now has an enrolment of about 500 students, in line with the target enrolment figure set by the Agricultural Education Commission. During the Plan period, the capacity of the college will be increased a little to about 560 students, but major emphasis will be given to improving the facilities and the quality of teaching. Over the five years of the Plan period, it is expected that about K£364,000 of Central Government development funds will be required for capital improvements at Egerton College.

8.89. The Animal Health and Industry Training Institute (AHITI) at Kabete trains Animal Health Assistants and staff for the artificial insemination service. The present enrolment of 250 students at AHITI has placed considerable strain on the facilities available. Furthermore, in order to meet the projected needs for staff trained in animal husbandry, the enrolment at AHITI will be increased to 310 students early in the Plan period. In order to provide for this increased number of students, extra teaching and residential facilities will be constructed at Kabete. In addition, a new unit of the institute is being constructed at the Livestock Improvement and Farmers' Training Centre at Ngong. This unit will enable 30 students from AHITI to be resident at Ngong in rotation for a period of three months. These improvements will require the expenditure of about K£99,000 of Central Government development funds over the Plan period.

DEVELOPMENT EXPENDITURE ON AGRICULTURAL EDUCATION

Table 8.6 *K£'000*

Item	1969/70	1970/71	1971/72	1972/73	1973/74	Total for Plan Period
Egerton College	20	78	104	94	68	364
AHITI	56	43	—	—	—	99
Embu Agricultural Institute	—	41	41	42	—	124
Second Agricultural Institute	—	114	143	58	35	350
F.T.Cs.—Large-Scale Farmers	132	18	18	—	—	168
F.T.Cs.—Small-Scale Farmers	102	62	66	66	—	296
Range Education	20	5	5	10	10	50
Veterinary Education	—	16	13	10	10	49
Animal Husbandry Education	4	36	5	10	16	71
Co-operative College	31	31	—	—	—	62
TOTAL	365	444	395	290	139	1,633

PROJECTED STUDENT ENROLMENT AND OUTPUT AT AGRICULTURAL TRAINING INSTITUTIONS,

Table 8.7

		Number of Students				
		1969/70	1970/71	1971/72	1972/73	1973/74
EGERTON COLLEGE:	Enrolment ..	560	560	560	560	560
	Output ..	119	209	210	210	210
EMBU:	Enrolment ..	150	180	230	250	250
	Output ..	64	80	90	120	120
KAKAMEGA:	Enrolment ..	—	70	200	270	270
	Output ..	—	—	60	130	130
AHITI:	Enrolment ..	250	310	310	310	310
	Output ..	70	120	145	145	145
NAIVASHA DAIRY TRAINING SCHOOL:	Enrolment ..	60	60	60	60	60
	Output ..	180	180	180	180	180
THOMSON'S FALLS LARGE-SCALE F.T.C.:	Enrolment ..	112	115	115	115	115
	Output ..	110	110	110	110	110
ELDORET LARGE-SCALE F.T.C.:	Enrolment ..	—	200	320	350	400
	Output ..	—	200	320	350	400

8.90. The Embu Institute of Agriculture offers one and two year courses leading to a certificate in agriculture, the shorter courses being designed for up-grading experienced junior staff of the Ministry of Agriculture. At present, the Institute has capacity for about 150 students and is designed to produce a maximum of 70 students each year. Present projections of requirements for this type of manpower indicate that an additional 180 agricultural certificate holders will be required each year after 1970. To cater for this need the capacity at Embu will be increased to 250 students and a second institute, with capacity for 270 students, will be constructed at Kakamega early in the plan period. These projects will involve the expenditure of about K£474,000 of development funds.

8.91. Lower level agricultural education is provided at a number of different centres, especially at the Farmers' Training Centres. There are at present 29 conventional Farmers' Training Centres in the major agricultural districts. These centres have an important role to play in teaching better farming methods to large numbers of farmers. During the Plan period, a considerable number of improvements will be made to the existing Farmers' Training Centres. In addition, five new centres will be established in Taita, Baringo, Busia, Bungoma and Kwale Districts. Two of the centres, Embu and Matuga (Kwale) will be converted into the first District Development Centres. At these centres the scope of instruction will be broadened considerably to include not only the conventional agricultural subjects but also.a wide range of other courses in such things as public health, adult literacy, etc. This will be a pilot project and if it is successful other Farmers' Training Centres will be modelled along similar lines; the plan is discussed in more detail in Chapter 20. During the Plan period capital expenditure on Farmers' Training Centres is projected at K£296,000. It is hoped that the International Development Association of the World Bank will assist in financing this programme.

8.92. With the recent transfer of many large-scale farms into African ownership, a need arose to establish a training programme for large-scale farmers and farm managers. For this reason, a Large-Scale Farmers' Training Centre has been established at Thomson's Falls, catering for about 100 students a year. However, this is not sufficient to meet the requirements for this type of training and an additional centre will be established at Eldoret early in the Plan period. The establishment of this new centre, together with some improvements to the centre at Thomson's Falls, are expected to involve the expenditure of K£168,000 of development funds over the Plan period.

8.93. In addition to the major programmes outlined above, several other agricultural training schemes will be expanded or implemented during the Plan period. These include expanding the capacity of the Dairy Training School at Naivasha, the establishment of Range Training Centres at Wajir and Narok and the establishment of a Sheep Institute. Training in farm mechanization will also be continued at the Narosurra Mechanization Scheme. Total development expenditure on these programmes is projected at K£170,000 over the Plan period. K£62.000 of development funds have also been allocated to the new co-operative college. This is discussed in a later section of this Chapter which deals with co-operatives.

8.94. Increased emphasis will also be given to agricultural training in Secondary Schools. In particular, under a programme receiving financial assistance from the International Development Association of the World Bank, 75 agricultural workshops will be established in Secondary Schools throughout the country. The courses run in these schools are not designed to produce students who are qualified to pursue agricultural occupations. Rather, they are intended to teach the students to appreciate better the important role of agriculture and to encourage more students to look to agriculture for their future occupations. This is discussed in more detail in Chapter 17 which covers Education.

Agricultural Research

Introduction

8.95. During the new Plan period much greater emphasis will be given to agricultural research, for this is a most important means of increasing agricultural productivity and farm incomes. Over the five years of the Plan period development funds amounting to K£3.2 million have been allocated to research, as outlined in Table 8.8.

8.96. Research relating to agriculture is carried out by several different organizations. These include the Ministry of Agriculture, the Ministry of Economic Planning and Development, the East African Agricultural and Forestry Research Organization (EAAFRO), the East African Veterinary Research Organization (EAVRO), the University College, Nairobi, and several statutory boards and private organizations. With this multiplicity of research organizations, it is important to ensure that research programmes are well co-ordinated. Several measures are being taken with a view to bringing about improvements in this direction. In particular, it has been agreed that a National Scientific and Research Council will be established and this will have responsibility for co-ordinating all research programmes in Kenya, including agricultural research. The Research Information Section in the Ministry of Agriculture is also being strengthened. This will help to improve the co-ordination of agricultural research, to make previous research results more readily available, and to facilitate communication between the research and extension services.

8.97. In general, when choosing between possible research projects, priority will be given to applied research in areas where the returns in terms of increased farm incomes are expected to be highest. This will involve several different types of research. A large part of the research effort will comprise technical research directed at breeding more productive crops and livestock, at finding better methods of controlling pests and diseases, and developing more efficient production techniques. In the past, some research of this type, such as recent plant breeding work with cereals, has been extremely successful. Despite this, technical research has been confined to a somewhat limited range of products and research designed to find more efficient production techniques, such as agronomic and farm mechanization trials, has been too limited in scope. During the Plan period, an effort will be made to overcome these deficiencies. Technical research will be intensified on the traditionally important agricultural products. This is especially important, for many adverse price changes have been experienced recently in export markets and more efficient methods of production are needed if agricultural exports are to remain competitive. At the same time, research will be expanded on new crop and livestock enterprises in order to facilitate diversification into hitherto unimportant agricultural products. Another deficiency in previous research work has been the lack of attention given to studying the economic aspects of agriculture. For this reason, more emphasis will be given to research in the fields of farm management and market research. The farm management research will be aimed at identifying the most profitable systems of farming in different situations. This will be of considerable assistance both in helping to formulate agricultural policies and in providing a basis for farm management extension work. Market research work will be undertaken with the objective of identifying all available market outlets for agricultural products, both in Kenya and overseas, and finding marketing policies which will enable these outlets to be exploited to maximum advantage.

8.98. *Crop Research.*—The existing research programmes on maize, wheat, pyrethrum, sugar, coffee, tea, cotton and horticultural crops will be expanded through increasing both the physical facilities and the numbers of staff available. This will involve an intensification of work along the present lines and broadening the scope of these programmes. For instance, in addition to the substantial ongoing research programme on coffee berry disease control, research on coffee breeding and selection and coffee quality and nutrition will be expanded. Likewise, while the present research programmes for breeding better varieties of wheat and maize will be continued, more emphasis will be given to agronomy trials with cereals in order to help identify the most efficient production techniques. Besides these existing programmes, new research projects concerned with potatoes, oilseeds, legumes, crop storage, irrigation and seed certification will be initiated during the Plan period. These new

DEVELOPMENT EXPENDITURE ON AGRICULTURAL RESEARCH.

Table 8.8 *K£'000*

Item	1969/70	1970/71	1971/72	1972/73	1973/74	Total for Plan Period
VETERINARY RESEARCH—						
Vaccine Production Unit	70	55	6	1	1	133
Construction of Veterinary Investigation Laboratories	24	56	83	90	190	443
Tick-Borne Diseases Project	—	16	17	17	16	66
Foot and Mouth Disease Research ..	—	15	15	15	20	65
Parasitology Laboratory	—	—	19	30	15	64
Biological Assay Laboratory	—	—	—	41	—	41
Wildlife Disease Research Project	—	5	7	8	10	30
Other Veterinary Research Projects.. ..	2	25	9	6	16	58
Total	96	172	156	208	268	899
ANIMAL HUSBANDRY RESEARCH—						
Beef Finishing Project	139	80	86	75	75	455
Dairy Research and Miscellaneous	23	23	35	39	47	167
Total	162	103	121	114	122	622
RANGE RESEARCH—						
Range Research Station	53	55	10	12	15	145
CROP RESEARCH—						
Coffee(a)	222	146	159	143	105	775
Sugar Cane	52	38	15	—	—	105
Grain Legumes	—	—	32	50	46	128
Horticultural Crops	30	80	20	24	—	154
Oilseeds	—	—	40	40	10	90
Potatoes	16	20	10	10	—	56
Cotton	—	—	20	17	12	49
Maize	28	6	6	5	—	45
Other Crops	5	—	25	18	—	49
Total	353	290	327	307	173	1,451
FARM MECHANISATION RESEARCH—						
Nakuru Farm Mechanisation Research Centre	10	20	30	20	20	100
TOTAL	674	640	644	661	598	3,217

(a)The figures shown for coffee research are not strictly comparable with the figures for other research expenditure. In the case of coffee all Government expenditure on research is expected to come from the Development Budget whereas development expenditure for other items of research is largely for capital development only. Capital expenditure on coffee research is expected to amount to about K£112,000 over the Plan period.

research programmes reflect the need to fill existing gaps in agricultural research and diversify agricultural production. Over the Plan period development funds amounting to K£1.45 million have been allocated to crop research (*see* Table 8.8).

8.99. *Farm Mechanization Research.*—In the past very little research has been done in Kenya in the field of farm mechanization. In order to overcome this deficiency, a farm mechanization research centre will be established at Nakuru early in the Plan period. While the research will be based at Nakuru, much of the work will consist of running field trials of equipment under different conditions throughout Kenya and the mechanization centre will work in close conjunction with other research stations. Although detailed plans for this programme have not yet been finalized, K£100,000 of development funds have been allocated to this project.

8.100. The farm mechanization research programme will have two major objectives. First, the research will be aimed at identifying the most efficient methods of using the range of farm equipment presently available in Kenya. Much of this consists of relatively large tractors and cultivating equipment used in crop production on large-scale farms. On these farms it is not unusual for machinery costs to amount to as much as 50 per cent of the total cost of crop production. Consequently, there is considerable scope for saving if less costly methods of cultivation could be found. Another problem is presented by the fact that the land in many areas is marginal for crop production, given the levels of rainfall and the present cultivation practices. It is thought that crops could be produced successfully in many of these areas if cultivation techniques which involved much better soil water conservation were developed. For these reasons, a major aim of the farm mechanization research programme will be to test alternative cultivation techniques with a view to reducing costs or improving soil moisture retention. The second objective of this programme will be to test under field conditions a wide range of equipment which is not presently in use in the country but which is used successfully elsewhere and is thought to be suitable for Kenya's conditions. Particular emphasis will be given to testing equipment which might help to fill the gap that exists at present between the extremes of tractors on the one hand and hand cultivation on the other, i.e. such things as improved ox cultivators, small two-wheeled tractors and various aids to hand cultivation.

8.101. *Livestock.*—An expanded livestock research programme is essential if the livestock development programme is to be implemented successfully. This research is undertaken mainly by the Divisions of Range Management, Animal Husbandry and Veterinary Services in the Ministry of Agriculture. The Range Management Division has been allocated K£145,000 of development funds for research over the Plan period. This research will be concerned primarily with the establishment of a Range Research Station near the Chyulu Hills in Machakos District. This location has been chosen because it includes the major soil, ecological and climatic conditions representative of the range areas.

8.102. Development funds amounting to K£622,000 have been allocated to research projects administered by the Animal Husbandry Division. These will involve the beef finishing project at Nakuru, research on dairy production at the National Animal Husbandry Research Station, Naivasha, and research projects on sheep, goats and pigs. The greater part of the development funds allocated to animal husbandry research, K£455,000, will be used for the beef finishing project at Nakuru. This project, which is financed jointly by the Kenya Government and the United Nations Development Programme/ Special Fund (UNDP/SF), is designed to examine the economic feasibility of finishing beef animals using cereals and other food by-products. The dairy research programme at Naivasha will involve additional investments in research facilities and the introduction of Friesian and Guernsey stock as well as continued work with the existing Sahiwal herd. Investigations will be carried out on nutrition, husbandry, breeding, butterfat testing and fertility problems. This project is receiving financial assistance from the Netherlands. In addition to the work at Naivasha, investigations into the most economic methods of increasing milk yields under local conditions will be carried out at other research stations operated by the Ministry of Agriculture. The Animal Husbandry Division will also carry out research on sheep husbandry. This will be carried out at the new Sheep Institute to be established at Ol Joro Orok. Research projects on pigs and goats will also be conducted at other centres.

8.103. Development funds totalling almost K£900,000 have been allocated to veterinary research for the Plan period. This research is designed to perform three closely related activities—diagnosis of disease, investigations into methods of control, and production of vaccines. At present the veterinary research facilities are largely based on the central station at Kabete and these facilities are over-burdened. During the Plan period considerable emphasis will be placed on decentralizing veterinary research, especially diagnostic research. Veterinary research centres will be constructed in the major livestock producing centres, including Nakuru, Nyeri, Mombasa, Kitale and Kisumu. The cost of building these centres is expected to be K£443,000. This should lead to much more rapid diagnosis of diseases. The ongoing programmes concerned with methods of controlling diseases, especially tick-borne diseases and foot and mouth disease, will be continued. At present the tick-borne disease project forms part of an East African programme financed by the UNDP/SF. The first phase of this will be completed in 1970, but it is hoped that the UNDP/SF will continue to provide financial assistance for this programme, since this project will be carried on throughout the Plan period. Finally, production of vaccines will be expanded together with certain related veterinary activities. Development funds amounting to K£133,000 will be used for the vaccine production unit over the Plan period.

8.104. *Farm Management Research.*—Farm management research is carried out primarily by the Statistics Division, Ministry of Economic Planning and Development. In the first four years after Independence this research was concentrated largely on studying the performance of farmers on the Million Acre Settlement Scheme. In 1968 the scope of the programme was broadened considerably to include samples of farmers in most of the important small-scale farming areas (including some settlement schemes) and in the major large-scale mixed farming areas in western Kenya. During the new Plan period these surveys will be continued much along the present lines so that several years' data can be obtained from a broad sample of farms representative of the important farming areas. These surveys are designed to study the performance of alternative systems of farming in particular areas, to see which are the most profitable, and to examine the factors which contribute to high profits in individual farm enterprises. The major enterprises studied in these surveys include coffee, tea, pyrethrum, wheat, maize, cotton, pineapples and dairy cattle. Until recently, the effectiveness of this research programme has not been as high as expected, primarily due to a shortage of suitably trained senior staff; problems have been experienced in organizing both the collection and analysis of farm data, with the result that there have been serious delays in completing the analysis, and this has been too restricted in scope. Furthermore, because of the lack of people trained in farm management techniques in the Ministry of Agriculture, the data that have been available have not been used effectively by the agricultural extension services. However, more trained staff are being recruited both in the Ministry of Economic Planning and Development and the Ministry of Agriculture, and a major improvement in the effectiveness of the farm management research programme is expected during the Plan period.

8.105. *Market Research.*—Up to the present time very little market research work has been done in Kenya. However, some serious market restraints face Kenya's agriculture, and it is important that the best possible marketing policies are adopted and marketing institutions are organized efficiently. With this in mind, a new Economics and Market Research Division has been established in the Ministry of Agriculture. The work of the market research section of this division will be aimed both at identifying all possible market outlets for agricultural products, both in Kenya and abroad, and at keeping the nature of marketing institutions and marketing policies under constant review. A small team of economists is being recruited for this work.

Irrigation

8.106. The country's irrigation potential is estimated to be more than 160,000 hectares of high potential land. More than 60 per cent of this is situated around the lower reaches of the Tana River, while the remainder is in various parts of the country, but especially around Lake Victoria. At present only about 6,000 hectares of land is irrigated. There are three operational irrigation schemes, Mwea in Kirinyaga District, Perkerra in Baringo, and Galole in Tana River, and two pilot irrigation schemes, one at Ahero in Central Nyanza, and one at Bunyala in Busia and Siaya Districts. During the new Plan period, the irrigation schemes at Mwea and Galole will be extended and another irrigation pilot project will be established on the Kano

Plains. In addition, if the outcome of feasibility studies is favourable, a major irrigation scheme may be started on the Kano Plains late in the Plan period. The projected areas of irrigated land during the Plan period are shown in Table 8.9. Development funds amounting to K£2.5 million have been allocated to irrigation schemes (*see* Table 8.10).

8.107. *Mwea Irrigation Scheme.*—The irrigation scheme at Mwea is the largest and most successful irrigation scheme. The irrigated area at Mwea will be increased from 3,890 hectares in 1969 to 4,650 hectares in 1972, at a cost of about K£278,000. When the extensions have been completed, about 2,175 families will live on the irrigation scheme and, based on present yields, the scheme should produce about 25,000 tons of paddy; this should have a gross value of over K£600,000 after milling. Field tests with improved varieties of rice are being conducted, and it is possible that new varieties of rice with 25 per cent higher yields could be introduced by the end of the Plan period. At present about 10,000 tons of paddy, or 60 per cent of annual production, are processed in the mill at Mwea. This is operated by a company owned jointly by the National Irrigation Board and the Mwea Farmers' Co-operative Society. The capacity of the mill is being increased, and by about the middle of the Plan period the Mwea mill should be able to process all of the rice produced on the scheme. This is expected to involve an additional investment of about K£107,000. It is hoped that financial assistance for this can be obtained from West Germany.

8.108. *Perkerra Irrigation Scheme.*—The irrigation scheme at Perkerra has not been too successful and losses have been incurred. The scheme comprises only about 570 hectares of irrigated land and it is difficult for a scheme as small as this to cover its overhead costs. Furthermore, the principal crop is onions and this crop has suffered from low yields and very variable prices. Recently yields have been substantially increased with the introduction of higher yielding varieties and better extension services, but in 1967 and 1968 very low prices were received and this has reduced the morale of the farmers and led to lower production. However, measures have now been taken to even out price fluctuations and an onion price stabilization fund started by the National Irrigation Board. The Board also intends to encourage

AREAS OF LAND UNDER IRRIGATION

Table 8.9 (*Hectares*)

Project	1969/70	1970/71	1971/72	1972/73	1973/74
Mwea Irrigation Scheme ..	3,890	4,290	4,650	4,650	4,650
Perkerra Irrigation Scheme ..	570	570	570	570	570
Galole Irrigation Scheme ..	570	650	810	810	810
Ahero Pilot Project	810	810	810	810	810
Kano Phase II Pilot Project ..	—	—	—	—	810
Bunyala Pilot Project ..	200	200	200	200	200
TOTAL	6,040	6,520	7,040	7,040	7,850

Potential
4650
570
50000
15000
18000 Yala
200
6000 Taveta
50000 U. Tana
144,320

Table 8.10 K£'000

Item	1969/70	1970/71	1971/72	1972/73	1973/74	Total for Plan Period
Extension to Mwea Irrigation Scheme ..	130	97	51	—	—	278
Mwea Rice Mill	107	—	—	—	—	107
Tana River (Galole)	80	116	146	56	56	454
Ahero Pilot Scheme	55	19	15	14	—	103
Kano Phase II (Second Pilot Scheme) ..	82	200	200	190	—	672
Kano Phase III	—	—	—	—	200	200
Nyanza Rice Mills	—	200	—	200	—	400
Taveta Pilot Scheme	—	39	39	18	18	114
Yala Swamp	51	—	—	5	10	66
Minor Irrigation Schemes	21	15	15	15	15	81
Irrigation Board Expenses	9	10	10	11	11	51
TOTAL	535	696	476	509	310	2,526

farmers to diversify production on the scheme. With this in mind, field trials with crops such as pawpaws, groundnuts, kenaf and passion fruit have been started at Perkerra. During the Plan period the scheme at Perkerra will not be expanded.

8.109. *Galole Irrigation Scheme.*—This scheme comprises about 570 hectares of irrigated land and is based on cotton production. The scheme is now being transformed into a pilot project and demonstration and training scheme as the forerunner to the ultimate development of the major irrigation potential in the Lower Tana River Basin. During the Plan period, emphasis will be placed on improving performance and productivity at Galole, and the scheme will be expanded to about 810 hectares. A major aim will be to continue to improve management and raise cotton yields. In addition, possible methods of diversifying production will be studied and field trials with kenaf and sugar-cane are being continued during the Plan period. Development funds of K£454,000 have been allocated to Galole for the Plan period. About 100,000 hectares of high potential land in the Tana River Basin are suitable for irrigation. This can be developed only after the hydro-electric potential of the river has been developed upstream. Probably, this will not be completed for at least another 15 years. Furthermore, any major irrigation development on the Tana River will be extremely expensive. It has been estimated that it would cost about K£190 million to develop all of the 100,000 hectares of suitable land. During this Plan period, an appraisal mission will examine possible ways of exploiting this potential and suggest the best method of developing the area.

8.110. *Irrigation in the Kano Plains.*—The Kano Plains are estimated to have about 14,000 hectares of land suitable for irrigation. Much of the area is depressed and subject to alternate floods and drought and many of the people living there depend to a large extent on remittances received from relatives employed elsewhere. However, while development of the irrigation potential in the area would lead to greatly increased productivity and employment, it is also extremely expensive. At Mwea, the cheapest irrigation scheme in Kenya, it requires a capital investment of about K£320 per hectare to develop irrigated land. But at Ahero it costs about K£860 per hectare to develop irrigated land, for here the water has to be pumped and the landowners compensated for their land. It is, therefore, important to carry out careful pre-investment studies of proposed irrigation schemes before major investments are made. For this reason, all major irrigation projects will be preceded by a pilot scheme where the performance of farmers can be studied in identical conditions to those projected for the proposed major irrigation development. In order to assess the feasibility of irrigating the Kano Plains, an 800 hectare pilot project was started at Ahero in 1966. Construction of this has already been completed and by the end of 1969 the scheme should be fully operational. The scheme has been planted with rice and it is estimated that a crop of about 7,000 tons will be produced each year. Side by side with the construction of the Ahero Pilot Project, an investigation centre has been established at Ahero, designed to conduct agronomy and mechanization trials and to carry out an economic evaluation of the pilot project, including a study of the market prospects for the crops which may be grown in the Kano Plains. It is expected that development funds amounting to about K£103,000 will be spent at Ahero over the Plan period. However, because conditions are not uniform throughout the Kano Plains, another 800 hectare pilot project will be started in an area near the shore of Lake Victoria early in the Plan period. This project is expected to cost about K£672,000 and take four years to complete.

8.111. By about 1972 sufficient information should be available from the Ahero Pilot Project to enable a feasibility report to be prepared for a major irrigation scheme in the Kano Plains. Depending on the outcome of this feasibility report, major irrigation development could start at about the end of the Plan period. To allow for this possibility, K£200,000 of development funds have been allocated to this project for the last year of the Plan period.

8.112. *The Yala Swamp Project.*—The Yala Swamp comprises an area of about 15,000 hectares. At present roughly one quarter of this area is being drained. Eventually it is intended that this land will be used for an irrigation scheme. The drainage works for the present phase of the reclamation scheme should be completed in June, 1970, and this will be followed by various investigations designed to test the agricultural potential of the drained areas. These will include soil and topographic surveys, agronomic trials and tests of various methods of destroying the substantial papyrus root mat left behind after drainage. These trials are expected to take at least another two years. If the outcome of the tests is favourable, a pilot project may be established in the area late in the Plan period. Development expenditure on this programme is projected at K£66,000, the larger part of this being required for the completion of the drainage works in 1969/70. In addition to the swamp drainage programme, a 200 hectare pilot irrigation scheme has been established at Bunyala on the southern edge of the Nzoia River close to the Yala Swamp. This is being planted with rice. It is hoped that this pilot project will provide data which will be helpful in deciding upon the best method of developing the land reclaimed at Yala.

8.113. *Taveta.*—There is an irrigation potential of about 6,000 hectares at Taveta in Taita District near the Tanzania border. There is a plentiful supply of spring water in the area and development of this for irrigation would not require the construction of expensive water storage works. However, problems of land alienation and soil salinity are obstacles to irrigation development. During the early part of the Plan period trials will be initiated to study the suitability of the area for irrigation. This will involve establishing a field investigation centre on a 30 hectare plot to study which crops and production techniques are best suited to the area. If these preliminary trials produce promising results an 800 hectare pilot irrigation project may be started at Taveta, although this is unlikely to take place before the end of the Plan period. Development funds amounting to K£114,000 have been allocated to these trials.

8.114. *Minor Irrigation Schemes.*—There are many areas of the country where small plots of land can be irrigated from streams, ponds or boreholes. These are not sufficiently large to justify the heavy overhead costs involved in organized irrigation and their development will depend largely on individual enterprise. However, assistance will be available to groups of people who organize self-help irrigation schemes and a sum of K£81,000 has been allocated for this purpose over the Plan period.

Land Reclamation and Development

8.115. Apart from the land reclamation project at Yala Swamp, which was described in the previous section on irrigation, land reclamation during the Plan period will consist primarily of tsetse fly clearance programmes. These programmes will make considerable areas of land available for agricultural development and settlement. There are also substantial areas of high potential land in Kenya which, for various reasons, are largely undeveloped, notably the high potential areas of Narok District and parts of the Coast Province. The approach to be adopted in developing both these under-developed areas and the newly reclaimed areas will be much the same and for this reason they are both discussed in this section.

Tsetse Fly Eradication Programmes

8.116. Quite large areas of land are infested with tsetse flies, including parts of Siaya, Busia and South Nyanza Districts in western Kenya and parts of the Coast, Eastern and Rift Valley provinces. In all of these areas tsetse flies are vectors of bovine trypanosomiasis and this makes livestock production either impossible or at least extremely difficult (depending on the degree of infestation). In addition, in parts of western Kenya tsetse flies carry human sleeping sickness and this makes human settlement impossible and causes considerable suffering. As a result of clearance programmes initiated in the previous Plan period tsetse flies have been eradicated in Siaya and Busia Districts and about 80,000 hectares of land have become available for settlement and agricultural development. Tsetse flies have also been largely eradicated from the Lambwe Valley in South Nyanza. During the Plan period tsetse eradication should be completed in the Lambwe Valley and a new eradication programme implemented in the Kerio Valley in Baringo and Elgeyo/Marakwet Districts.

8.117. The tsetse clearance project in the Lambwe Valley consists of two complementary projects which are being carried out simultaneously. The first of these is a straightforward eradication programme involving aerial spraying and/or bush clearance. This should be completed by about 1970. The other is a three year project which was started in March 1968. This project has four main aspects: (i) field and laboratory research designed to study the ecological associations between tsetse flies, trypanosomiasis, vegetation, man, wildlife and domestic stock; (ii) determination of the most economic methods of tsetse control, including the prevention of reinfestation; (iii) field surveys to determine the extent of infestation in different areas and the results of control measures; and (iv) the control measures themselves. This project is expected to yield results which will be extremely helpful in designing efficient methods of controlling tsetse flies in other areas where there is sufficient economic or social justification for tsetse eradication programmes. The project is expected to cost a total of K£1.1 million. The greater part of this cost will be for recurrent expenditure required to pay staff salaries, etc.; only K£120,000 of development funds have been allocated to this project for the Plan period.

8.118. The other tsetse fly eradication programme to be undertaken will be in the Kerio Valley. About 120,000 hectares of land in the Kerio Valley are infested with tsetse flies. This area will be cleared, beginning at the southern end of the valley. This will open up the area for human settlement and livestock production. The methods of tsetse fly eradication to be adopted will involve the application of insecticides and bush clearing. This project is expected to cost about K£110,000, but only about K£5,000 will be development funds.

Development of Reclaimed Land and Under-developed Areas

8.119. In order to develop the land reclaimed in Siaya and Busia Districts, in the Lambwe and Kerio Valleys, and other under-developed areas, such as Narok District and certain areas at the Coast, comprehensive development plans will be drawn up for each of these areas. But these plans cannot be formulated until a broad range of surveys, involving a study of the physical, sociological and economic environments in each area, have been completed. During the early part of the Plan period these surveys will be carried out under a programme to be co-ordinated by the Ministry of Economic Planning and Development. Development funds amounting to K£40,000 have been allocated to this Ministry for these surveys. When the necessary basic data have been obtained comprehensive development plans will then be made by each of the District Development Committees concerned, working in conjunction with the Provincial Development Committees and the head offices of the appropriate ministries. In this way the local people will be involved in planning their own future through their District Development Committees, but the local development plans will be co-ordinated at the provincial and national levels. Because neither the basic surveys nor the development plans for these areas have been completed, it is not possible at this stage to say exactly how development will proceed in these different areas. Several different ministries, such as Agriculture, Lands and Settlement, Works, Health, and Education, will be involved in implementing these plans. For this reason, it will be necessary to ensure that the operations of the individual ministries are well co-ordinated. Two of the areas involved, the Kerio Valley and Kikoneni Location of Kwale District, are included in the Special Rural Development Programme. This programme should be most helpful in suggesting the most appropriate administrative arrangements under which comprehensive development programmes of this type can be implemented.

CROPS

Introduction

8.120. Increased crop production should contribute substantially to the growth of agricultural output over the Plan period. In 1967 Gross Farm Revenue (GFR) from crops was estimated to be K£43.9 million or about 65 per cent of total GFR. Between 1967 and 1974 GFR from crops is expected to grow at an average annual rate of 6.8 per cent and in 1974 the value of marketed crop production is projected at K£69.3 million (in 1967 prices), or about K£25 million more than the 1967 level*. However, the market prospects for many of the crops produced in Kenya are not good. The quantity of coffee that Kenya can sell in the important overseas coffee markets is restricted by the quota allocated to Kenya by the International Coffee Organization. The world markets for both sisal and pyrethrum have been adversely affected by competitive synthetic products. Likewise, the world market price of tea may decline still further if production continues to grow faster than demand. For these reasons, the country will not be able to expand

* The average annual growth rate from 1968 to 1974 is projected at only 5.9 per cent, in 1968 prices (*see* Table 8.11).

rapidly production of several traditionally important crops; in fact, production will remain static or even decline for a few of these crops. In some cases, where increased production is planned, this will be possible only if we can compete more effectively in world markets through increasing efficiency in both production and distribution. Output will also be increased through diversifying production and concentrating more on hitherto unimportant crops.

8.121. Table 8.11 shows the quantities and values of production for the major crops in 1967 and 1968 together with the projections for 1974. Production is expected to increase rapidly only for a few crops, the most important being tea, maize, sugar-cane, rice and pineapples. The projected annual rates of growth in output for these crops between 1967 and 1974 are all in excess of 10 per cent. Output from most other crops is expected to increase more slowly. For example, the average annual rates of increase in production for the important crops pyrethrum, coffee and wheat are projected at 1.9, 2.6 and 5.1 per cent respectively between 1967 and 1974. In the case of both sisal and wattle a small decline in production is expected. Detailed plans for the individual crops are given in the sections that follow.

Food Crops Produced Primarily for Domestic Consumption

8.122. One of the primary objectives in agricultural development is to ensure that adequate food supplies are available at prices which are reasonably low from the consumers' viewpoint but which are still sufficiently high to give the efficient producer a fair return. When the previous Development Plan was being prepared, the country was experiencing an extremely serious food shortage and Government policies at that time were designed to prevent a repetition of the conditions of severe food shortage which prevailed in 1965. Since then, hybrid and synethetic varieties of maize and higher yielding and more rust resistant varieties of wheat have been introduced; the use of fertilizers and insecticides, etc., has become much more widespread; production has been expanded on irrigation schemes and substantial investments have been made in sugar schemes. This has led to a considerable increase in food production and Kenya has changed from being a net importer to a net exporter of cereals. This increase in production has been accompanied by a lowering in both producer and consumer prices of some cereals including the producer prices of maize and wheat and the retail prices of maize flour and rice. However, producer prices of maize and wheat are still too high to permit these products to be exported profitably and substantial losses have been made recently on maize and wheat exports. During this Plan period, food crop production policies will be aimed at providing local food supplies at reasonable prices and exporting surpluses whenever this can be done profitably. In practice this will involve exporting maize, and possibly rice, to overseas markets, exporting some wheat to the other East African countries, but otherwise producing primarily for the Kenya market.

Table 8.11

CROP PRODUCTION AND GROSS FARM REVENUE FROM CROPS, 1967, 1968 AND 1974

	Quantity of Output (Metric tons)			Gross Farm Revenue in 1967 Prices (K£'000)		Annual Growth Rate 1967 to 1974[a]	Gross Farm Revenue in 1968 Prices (K£'000)		Annual Growth Rate 1968 to 1974[a]
	1967	1968	1974	1967	1974		1968	1974	
						Per cent			Per cent
Permanent Crops:									
Coffee	48,005	39,601	64,000	13,995	16,763	2·6	12,676	17,931	5·9
Tea	22,811	29,764	45,750	8,927	17,904	10·4	9,290	14,279	7·5
Sisal	51,680	50,280	45,750	2,391	2,117	(1·8)	2,193	1,996	(1·6)
Wattle Bark	54,800	50,100	45,000	860	706	(2·4)	702	631	(1·6)
Coconuts and Coconut Products	n.a.	n.a.	n.a.	480	530	1·4	490	530	1·3
TOTAL				26,653	38,020	5·3	25,351	35,367	5·8
Cereals:									
Wheat	162,228	216,309	230,000	4,575	6,486	5·1	6,779	7,208	1·0
Maize	248,839	352,557	610,000	4,218	10,340	13·6	5,361	9,278	9·6
Rice Paddy	15,938	18,747	40,600	387	986	14·2	454	983	13·7
Oats, Barley and Others ..	n.a.	n.a.	n.a.	460	903	10·1	489	787	8·3
TOTAL				9,640	18,715	10·0	13,083	18,256	5·8
Temporary Industrial Crops:									
Seed Cotton	12,715	14,279	20,000	603	948	6·7	700	980	5·8
Sugar Cane	706,300	950,000	1,750,000	1,598	4,025	14·1	2,185	4,025	10·7
Pyrethrins	132	150	150	2,699	3,067	1·9	2,629	2,629	—
Castor and Oil Seeds ..	n.a.	n.a.	n.a.	443	750	7·8	370	750	12·4
Tobacco	n.a.	n.a.	n.a.	10	40	21·9	18	40	14·2
TOTAL				5,353	8,830	7·4	5,902	8,424	6·1
Other Crops:									
Pineapples and Other Fruit	n.a.	n.a.	n.a.	806	1,800	12·1	810	1,800	14·2
Cashew Nuts	11,800	8,693	15,250	422	545	3·7	325	570	9·8
Pulses	n.a.	n.a.	n.a.	466	600	3·7	490	600	3·4
Potatoes	n.a.	n.a.	n.a.	288	400	4·8	290	400	5·5
Vegetables	n.a.	n.a.	n.a.	275	400	5·4	313	400	4·2
TOTAL				2,257	3,745	7·5	2,228	3,770	9·1
TOTAL ALL CROPS ..				43,903	69,310	6·8	46,564	65,817	5·9

([a])Figures in parentheses are negative.

8.123. *Maize.*—Maize is the staple food of the people. It is also the most important crop grown, both in terms of its value and the amount of land devoted to it. In the 1968/69 season it was estimated that more than one million hectares of land were planted to maize and that total production was about 1.4 million metric tons. A high proportion of this maize was consumed by the people living on the farms where it was produced; had it all been sold at the 1968/69 producer price (Sh. 28 per 200 pound bag or about 31 cents per kilo), this crop would have been worth about K£21 million.

8.124. Because the producer price of maize has been quite high in the past, previous policies have been aimed primarily at meeting internal requirements. With the recent major technological improvements in methods of maize production, per unit production costs have declined and there is now a very real possibility of exporting maize profitably. However, the producer price of maize in the last few years has been higher than export parity and recent exports of maize have involved substantial losses. Nevertheless, as a result of savings in handling and storage costs, it is expected that the producer price will soon be in line with the export parity price. For this reason, it is planned to increase maize production substantially. Marketed production in 1974 is projected at 610,000 metric tons compared with the 1967 and 1968 production levels of 249,000 and 353,000 metric tons respectively. This will mean that maize will be an important export crop by the end of this Plan period. Maize exports in 1974 are projected at 430,000 metric tons worth an estimated K£7.6 million. The balance of marketed production, 180,000 metric tons, will be required to meet the needs of local markets.

8.125. The farm gate price of maize and the export parity price should be brought into line soon for several reasons. First, the producer price of maize was reduced in 1969 (to Sh. 24 per 200 pound bag at railhead, or about 26 cents per kilo). Recent technological improvements in maize production methods should permit farmers to produce maize profitably at this price level. Indeed, as better production methods are more widely adopted, the market supply of maize is expected to increase substantially, even at this reduced price level. This move will be encouraged in several ways. The extension services in the maize producing areas are being improved. More farmers, both small- and large-scale farmers, are expected to attend courses at Farmers' Training Centres, where they will learn about better maize production techniques. Supplies of hybrid and synthetic varieties of maize seeds will be increased and an effort will be made to improve the arrangements for marketing and distributing farm inputs in the maize producing areas. Secondly, steps will be taken to bring about a substantial reduction in the cost of getting maize from the producing area to the port of Mombasa. This will involve the installation of bulk storage facilities both at Mombasa and up-country, the use of bulk handling methods on the railway and a reorganization of the operations of the Maize and Produce Board. At present the total cost of getting one ton of maize from the producing areas to the ship in Mombasa amounts to about Sh. 176, on the average. When the new bulk handling and storage facilities are fully operational, probably at about the end of 1971, this figure should be reduced to about Sh. 100 per metric ton. This will obviate the need for subsidizing maize exports, for the farm gate and export parity prices should then be about the same. In the meantime, however, some subsidy on exports of maize will be necessary. This subsidy is justified on the grounds that the maize industry is going through a transitional period with the possibility that maize exports will become one of the most important export crops in a few years time. Thirdly, the internal market will be freed of all movement restrictions.

8.126. Maize production in any particular year can be seriously affected by the weather conditions, etc. Indeed, for this reason maize production in 1969 is now expected to be lower than earlier forecasts suggested. In order to safeguard against possible food shortages arising through drought, the Government decided in 1966 to keep each year a strategic reserve of about 90,000 tons of maize. This policy is now being reviewed in the light of present conditions. It seems likely that the size of the strategic reserve will be reduced substantially and this will be integrated with the normal storage operations of the Maize and Produce Board, i.e. the Board will keep sufficient stocks both to meet the normal market requirements and to ensure against possible shortages in poor seasons. The increasing size of maize exports will mean that the amount of maize surplus to Kenya's domestic requirements is increasing. Thus, it becomes less and less likely that the total volume of production would be insufficient to meet domestic maize requirements even in a period of severe drought. For this reason, the amount of maize needed as a strategic reserve should diminish considerably as the export surplus of maize increases. At present the Food and Agricultural Organization of the United Nations (FAO) and the Economic Commission for Africa (ECA) are conducting a joint study to examine the possibility of grain reserves being kept on a regional basis. If, as a result of this study, Kenya were to participate in a regional grains storage scheme, the reserves kept in the country could be higher or lower than the size that would be needed just to meet our own requirements.

8.127. In the past maize has been used in Kenya almost exclusively for human food. With the substantial increase in production now being obtained, possible alternative uses for maize may become possible. These alternatives, including the processing of maize for industrial uses and the intensive use of maize as a stockfeed, are being examined at present.

8.128. *Wheat.*—Next to maize, wheat is the most important cereal grown. In 1968 the value of marketed wheat production, K£6.8 million, was higher than the value of marketed maize production, K£5.4 million. Short-term credit arrangements have been made as advances on the MFR for wheat, and higher yielding more rust resistant varieties of wheat have been introduced. The cumulative effect of these measures has been a substantial increase in the volume of wheat production. In the early 1960s, the area of land planted to wheat was usually of the order of 100,000 hectares. By 1967 this had increased to more than 130,000 hectares, and to 167,000 hectares in 1968. Yields have also increased during this time. The net result has been that a substantial surplus of wheat has been built up. At the beginning of 1969 this surplus, excluding the 1968/69 crop, amounted to about 80,000 tons more than could be sold in East African markets. Some of this wheat has been used to increase the country's wheat reserves, but much of it will have to be exported overseas as flour, at a considerable loss, for the producer price of wheat has recently been far higher than the overseas export parity price. In 1969, the producer price was reduced to Sh. 40 per 200 pound bag, or roughly 44 cents per kilo. This price is still considerably higher than the equivalent export parity price for both wheat and flour. Accordingly, the policy for wheat during this Plan period will not be to export wheat except to Uganda, and to bring production into line with the market requirements in Kenya and Uganda. In the past, wheat consumption in Kenya has been increasing at an annual rate of about 5 per cent, but this trend is expected to accelerate slightly since it is likely that the retail price of wheat products will be reduced during the Plan period and this will encourage consumption. Taking account of these factors and the estimated size of the market outlets available in Uganda, it is expected that Kenya will be able to sell about 230,000 metric tons of wheat in 1974; this has been set as the target production figure. This target is only a little higher than the 1968 production level of 216,000 tons. Yields are expected to continue to increase over the Plan period, and it seems likely that the 1974 production target will be obtained from a smaller area of land than that used for wheat production in 1968. This reduction could amount to about 15,000 hectares of land.

8.129. The wheat production policy outlined above is essentially a short-term policy. Kenya has an impressive capacity for wheat production. About 500,000 hectares of land in Kenya are considered to be suitable for wheat; this is more than three times the area planted to wheat in 1968. It will not be possible to exploit this capacity unless farmers in Kenya can grow wheat at substanially lower prices, so that wheat can be exported profitably. In the long-term it is hoped that this will be possible as better wheat production methods are used and per unit costs of production continue to decline.

8.130. *Rice.*—The bulk of the rice crop is produced on irrigation schemes. With the completion of two irrigation pilot projects in western Kenya (810 hectares at Ahero and 200 hectares at Bunyala), the ongoing extension programme at Mwea, and the proposed additional irrigation pilot project in the Kano Plains, it is projected that about 6,300 hectares of irrigated land will be planted to rice in 1974. About 1,800 hectares of this land in western Kenya will be double cropped and this brings the effective area of rice up to 8,100 hectares in 1974. Based on the present average yield of 4.8 tons of paddy per hectare this area should produce about 39,000 tons of paddy. However, yields are expected to increase with the introduction of improved varieties of rice. Taking this into account, together with the fact that small supplies of rice should be obtained from rain-fed fields, the target output has been set at 40,600 metric tons of paddy in 1974. This is equivalent to about 26,800 tons of rice.

8.131. The 1974 rice production target is almost double the present level of consumption in Kenya, which averages about 14,000 tons per annum. Consumption in Kenya has been low, partly because the retail price of rice is very high in relation to other cereals, partly because the quality of rice produced has been poor, and also because rice is not a traditional food for the majority of the population. During the Plan period, several measures will be undertaken with the objective of encouraging local consumption of rice. The quality of rice available will be improved as a result of the recent installation of a modern rice mill on the Mwea Irrigation Scheme. The introduction of new attractive varieties of rice should also stimulate consumption in the long term. The retail price of rice has recently been reduced by 12 cents per kilo and it is likely that a further price reduction will be made soon. A rice consumption campaign will be mounted by the National Irrigation Board in order to popularize rice consumption. The National Irrigation Board is also conducting a market research survey to identify market requirements, both in Kenya and overseas, so that these can be exploited fully. However, it seems unlikely that domestic rice consumption will rise sufficiently to absorb all of the increase in production. Probably, some rice will have to be exported. The export parity price of rice will probably be a little lower than the present producer price. However, if rice has to be exported, this should not reduce the producers' incomes, for rice yields are expected to increase in the meantime.

8.132. *Other Cereals.*—The other cereals grown, apart from wheat, maize and rice, are barley, oats, sorghum and millet. Sorghum and millet are grown principally for subsistence in the small-scale farming areas: in some of these areas, they are extremely important subsistence crops. In 1968, it was estimated that about 400,000 hectares of land were planted to these two crops and that production amounted to about 350,000 metric tons. In the past, the Ministry of Agriculture has made persistent efforts to popularize the cultivation of more productive varieties of sorghum and millet. These efforts have been largely unsuccessful, primarily because of the susceptibility of these improved varieties to various pests and diseases. Furthermore, with the advent of drought resistant synthetic maize, the possibilities for developing sorghum and millet as important crops in the drier areas of the country seem even more remote. Nevertheless, research on these crops is still being carried on and efforts to improve their productivity will be continued, especially in areas which are too dry even for the new drought resistant synthetic maize.

8.133. Barley and oats are produced principally in the large-scale farming areas, although they are not important cereal crops. In 1968, for example, the value of barley, oats and other cereals marketed amounted to less than 5 per cent of the value of all cereals marketed. In recent years production of both barley and oats has declined, primarily because wheat and maize production was usually more profitable. Barley production declined from about 20,000 tons in 1963 to less than 10,000 tons in 1968. However, with the recent fall in the producer price of wheat it is expected that some land previously used for wheat production will now be used for producing barley and oats. For this reason, sales of barley, oats and other cereals are expected to increase quite rapidly over the Plan period. Gross Farm Revenue from these crops amounted to about K£460,000 in 1967 and this is expected to increase to K£900,000 by 1974. Special short-term credit arrangements for farmers growing malting barley are now being worked out.

8.134. *Sugar.*—In the Development Plan 1966-1970 programmes designed to bring about a substantial increase in sugar production were outlined. These involved increasing production at the two old-established factories, Miwani in Nyanza Province and Ramisi at the Coast, and the establishment of two new sugar schemes, Muhoroni and Chemelil, both in Nyanza Province. During the new Plan period, sugar production will continue to grow rapidly in the existing four factory zones, for these will be fully developed only towards the end of the new Plan period. In addition, a new sugar scheme may be established at Mumias in Western Province.

8.135. Recent developments in the sugar industry have involved large capital investments. The two new sugar schemes at Chemelil and Muhoroni cost about K£6.3 million and K£3.2 million respectively. The first phase of a sugar roads improvement programme will have been almost completed at a cost of K£2.8 million by the beginning of the Plan period. In addition to these investments, more capital has been invested both in expanding cane production and in improving the two old-established factories. These investments have led to greatly increased production. In 1968, sugar production was more than 81,000 metric tons, compared with 60,000 tons in 1967 and the previous highest figure of 37,000 tons in 1963.

8.136. By 1974, sugar production from the existing four factories is expected to be about 165,000 metric tons, or a little more than twice the 1968 production level. Several factors should contribute to this rapid expansion in production. The area of cane is expected to increase by about 40 per cent, from 29,000 hectares in 1968 to 40,000 hectares in 1974. Average cane yields are expected to improve and there should be major improvements in factory efficiency, especially at the two new factories where serious initial operating problems have been encountered. Lastly, a substantial backlog of overmature unharvested cane has built up recently, especially in the small-scale outgrower areas. At the end of 1968 this backlog was thought to amount to as much as 300,000 tons of cane in the small-cane outgrower areas alone. The existence of this overmature cane markedly reduced the effective level of production of the cane areas. Because the sugar content of cane declines the more overmature it becomes, the existence of a backlog of overmature cane means that it takes longer to produce a crop of lower value. Vigorous efforts are now being made to tackle this problem. Extra transportation equipment is being obtained and the management organizations which look after the harvesting and transport of cane are being strengthened. Likewise, improvements are being made to the cane receiving yards in the factories, so that vehicles supplying cane are not delayed unnecessarily while waiting to unload. These improvements should lead to the removal of the present backlog of overmature cane early in the Plan period, after which time cane should be harvested as soon as it matures.

8.137. In order to fully develop the existing four sugar schemes, additional investments will be made during the new Plan period. But these will not be large in relation to the initial investments made when the two new sugar schemes were established. The largest investment in these areas will be for sugar roads. The first phase of the sugar roads improvement programme in the Miwani/Chemelil/Muhoroni areas will soon be completed at a cost of about K£2.8 million; only about K£380,000 will be required during the Plan period to finish this phase. The second phase of this programme should be carried out in the same areas between 1969/70 and 1971/72. This is expected to cost about K£1.8 million. In addition, a sugar roads improvement programme will be carried out in the Ramisi factory zone during the Plan period, although this has not yet been planned in detail and the likely level of investment required cannot yet be estimated. As well as the investments to be made in sugar roads, it is expected that about another K£600,000 of public funds will be invested in the two new factories. This will be used mostly for new equipment required either to expand capacity or to improve efficiency. About another K£500,000 will also be invested in improving the arrangements for harvesting and transporting cane on the sugar settlement schemes at Muhoroni. More capital will also be required to expand cane production.

8.138. If the production target of 165,000 metric tons of sugar is obtained in 1974, present indications are that Kenya will be almost self-sufficient in sugar at that time. In 1968, sugar consumption was about 132,500 metric tons and about 81,500 tons, or 62 per cent of consumption, was produced locally. Over the past decade consumption has grown steadily at about 6 per cent each year and, if this trend continues, consumption in 1974 is expected to be of the order of 170,000 to 180,000 tons. If the production target for the existing four factories is met, the country would need to import only between 5,000 and 15,000 tons of sugar in 1974. If consumption continued to grow after 1974, the existing four factories would be operating near to their maximum capacities and sugar imports would start to increase again. Thus, if an additional sugar scheme were to be started in Kenya there would be a local market available for this sugar if production commenced at about the end of the Plan period. With a view to meeting this expected need, a sugar pilot project was started at Mumias in 1967 and a report on the feasibility of establishing a full-scale commercial project of Mumias will be available in the middle of 1970. A decision on whether to proceed with the full-scale project will have to await the outcome of this feasibility report. However, present indications are that sugar will grow better in the Mumias area than in any of the existing sugar producing areas. If the full-scale project were to go ahead it would probably cost about K£5 to K£6 million, although it is unlikely that the factory would begin to produce sugar before the end of the Plan period. Central Government development funds totalling K£3.3 million have been tentatively allocated to this project, it being assumed that the balance of the capital required would be obtained from private investors.

8.139. *Beans and other Pulses.*—Development of beans and other pulses has been largely ignored in the past in favour of other more profitable crops such as tea, coffee and pyrethrum. Nevertheless, pulses are a significant source of protein to the population. They are also important cash crops in some areas. In 1967, Gross Farm Revenue from pulses was estimated to be K£466,000 and this is expected to increase to K£600,000 by 1974. In the longer term, it is hoped that the production of pulses will increase substantially. Pulses are an attractive crop not just because they provide a means of diversifying production, but also because they can be grown in many of the drier parts of the country where few alternative crops are available. However, before any large increase in production can be expected, more research needs to be undertaken. During this Plan period a Grain Legume Research Station will be established. The work at this station will be concerned with identifying the causes underlying the present low yields, selecting improved varieties, and carrying out agronomic trials with pulses. Significant results will probably not be obtained from this research programme until late in the Plan period. When these results do become available, they should provide a firm foundation for the rapid development of pulses production.

8.140. *Potatoes.*—Potatoes are an important crop, both for subsistence and for sale, especially at high altitude where maize does not grow well. In 1967, Gross Farm Revenue from potatoes was estimated to be K£288,000 and this is expected to increase to K£400,000 by 1974. Increased production of potatoes has been hampered by several diseases, notably potato blight and bacterial wilt. To overcome these problems, a potato research unit is being established within the Ministry of Agriculture. In addition to conducting research, the unit will supervise the potato seed industry, so as to encourage the production of high quality disease-free seed. A farm has been selected at Limuru for this unit.

Food and Other Crops Produced Primarily for Export

8.141. *Coffee.*—Coffee is the most important cash crop in Kenya, although by the end of the Plan period tea should rank a close second. Over the last few years coffee has contributed about 25 per cent of total Gross Farm Revenue and about 30 per cent of the value of overseas exports. The coffee industry also provides wage employment for about 100,000 people. In 1968 the area planted to coffee was estimated to be 81,000 hectares comprising 31,000 hectares on the estates and 50,000 hectares on smallholdings. Production of coffee in 1967 amounted to 48,000 tons, worth K£14.0 million, although production declined in 1968 to 39,600 tons worth K£12.7 million. By 1974, production is expected to have increased to 64,000 tons worth an estimated K£16.8 million (in 1967 prices). No further expansion in the area planted to coffee is expected over the Plan period. On the contrary, yields are expected to increase sufficiently to enable the 1974 production target to be obtained from an area of coffee perhaps 7,000 hectares less than the 1968 level. The 1974 production target of 64,000 tons is considerably higher than the present coffee export quota allocated to Kenya under the International Coffee Agreement. This was about 47,600 tons for the 1968/69 season. It is hoped that a larger quota can be negotiated before the end of the Plan period, although it is expected that sales to non-quota markets will be increased, especially to the Soviet Union, the Eastern European countries and to Japan. Domestic consumption of coffee should also increase and this will be encouraged.

8.142. The coffee industry has been beset by a number of problems during the last few years. Primary among these has been the high incidence of coffee berry disease (CBD). This became widespread in the 1964/65 season and has since become even more serious. As a result coffee quality has declined and coffee yields have fallen drastically. On the small-scale coffee producing farms coffee yields in 1967/68 averaged only about 78 kilos per hectare compared with 193 kilos in 1963/64. Likewise, on the coffee estates, the average yield in 1967/68 was only about 74 kilos per hectare compared with 146 kilos in 1963/64. While an effective method of controlling CBD has now been found, this is very expensive and not suitable for the conditions on many coffee farms, especially on the small-scale farms. For these reasons, the profitability of coffee production has declined markedly together with the standard of coffee husbandry. Other problems besides CBD have also confronted the coffee industry. Necessary short-term credit has been difficult to obtain and many coffee co-operative societies have been inefficiently managed.

8.143. In view of the problems mentioned above, several remedial measures are being taken. Research on CBD is being intensified with a view to finding more effective and less costly methods of control. At present, it costs about KSh. 1,200 per hectare to control CBD and this makes control uneconomic unless high yields can be obtained. Research designed to breed varieties of coffee which produce higher yields and better quality and which are resistant to CBD will also be undertaken. This could provide the long-term solution to many of the problems of the coffee industry, although it cannot be expected to produce any benefits in this Plan period. The advisory services available to coffee farmers are also being improved and the administrative organizations in the coffee industry placed on a more rational footing. At present there are three statutory authorities directly involved with coffee, the Coffee Board, the Coffee Marketing Board and the Coffee Development Authority. These are all being amalgamated into one organization, the Coffee Board. Steps are also being taken to make increased amounts of short-term credit available to coffee farmers, primarily to help them to finance CBD control measures. The short-term credit for large-scale coffee producers will be administered by the AFC while that for small-scale farmers will be administered through the co-operative movement. Increased efforts are also being made to improve the management efficiency of coffee co-operative societies. These are discussed at the end of this chapter in the section on co-operatives. The Government has also agreed to meet the full cost of coffee extension services and the majority of coffee research costs. These costs, which amount to about K£500,000 per annum, have up to the present time been paid by coffee producers out of cesses levied on production. Finally, the Government intends to encourage farmers in the more marginal coffee producing areas to diversify production and cease growing coffee.

8.144. The extent of coffee production will be markedly affected by the incidence of CBD and the effectiveness of control measures. By the end of the Plan period it is possible that coffee production might be considerably higher than the 1974 target level, if control measures are highly effective. Should this happen, disposing of the surplus coffee could be a serious problem and it may prove necessary for the Coffee Board either to refuse to purchase very low grade coffee or to purchase this only at a very low price. If a surplus of coffee were to be obtained a storage problem might also be created. In anticipation of this possibility, the Government will undertake a study of coffee storage requirements.

8.145. *Tea.*—Recent expansion in tea production has made this commodity almost as important as coffee in terms of its contributions to farm incomes and export earnings. In 1967, tea production amounted to 22,800 metric tons worth K£8.9 million. By 1968, this had increased to 29,800 metric tons, but the value of this crop had increased only to K£9.3 million, primarily because of the substantial drop in world tea prices following the devaluation of the pound Sterling. Over the Plan period tea production should continue to expand rapidly. In 1974, the crop is expected to amount to 45,750 tons. This would be worth K£17.9 million in 1967 prices, but only K£14.3 million in 1968 prices. Most of this expansion will take place on small-scale farms rather than on the tea estates. In 1968, the total area of tea amounted to about 33,300 hectares, of which 21,400 hectares were on the large-scale estates and 11,900 hectares were on small-scale farms. In 1974, the total area is projected at about 50,200 hectares comprising 24,000 hectares on the estates and 26,200 hectares on the small-scale farms. This is equivalent to an increase of 120 per cent in the area of tea on small-scale farms but only 12 per cent on the estates.

8.146. Tea production on small-scale farms is organized by the Kenya Tea Development Authority (KTDA). Tea production has proved to be so popular among small-scale farmers that the KTDA has recently been able to complete its second smallholder tea development programme two years ahead of schedule. The recent decline in the price of tea may dampen farmers' enthusiasm for tea production. Nevertheless, the KTDA expects to be able to complete its third development programme by 1972/73. This calls for increasing the area of tea on small-scale farms from about 11,900 hectares in 1968 to 26,200 hectares in 1972/73. This expansion programme will involve the construction of nine new tea factories at an estimated cost of K£2.8 million. This will be a joint venture between the KTDA, the Commonwealth Development Corporation, the Kenya Government and private tea companies. Most of the expansion in tea production in the field will be obtained through increasing the density of tea production in existing tea areas rather than moving into new areas. In this way, the per unit costs for transport and other overheads can be reduced. Most of the new plantings will be based on vegetative propagation and this is expected to improve tea yields and quality significantly.

8.147. For the five years of the Plan period, total public and private investment in the tea industry is projected at K£4.8 million. Of this total K£1.1 million will comprise Central Government development funds to be lent to the KTDA. The remaining capital will be provided by the International Development Association of the World Bank, the CDC, West Germany, the KTDA and private tea companies.

8.148. *Sisal*.—Export prices of sisal have declined severely in the last few years—from a peak of K£99 per metric ton f.o.b. Mombasa in 1964 to only K£45 per ton in 1968. Sisal prices have been affected adversely by several factors, including competition from synthetic polypropylene substitutes, the devaluation of the British and Brazilian currencies and the removal of Commonwealth Preference on sisal. At the lower price levels prevailing today, only the most efficient producers can hope to produce sisal profitably. Several estates have gone out of production recently and production in 1968 was 25 per cent less than in 1964. Competition from synthetics is increasing and the demand for sisal for use as binder twine in the developed countries is declining due to the more extensive use of mechanical crop palleting rather than the use of string tied bales. An informal agreement intended to improve sisal prices was made between the exporting and importing countries in 1967 under the auspices of F.A.O. Despite this, it seems unlikely that sisal prices will improve much in the near future. The prospects for increased local consumption of sisal are not good either. In 1968, the two local factories which make sacks or sisal rope purchased about 10,000 tons of sisal or

20 per cent of local production. However, the present plans for installing bulk handling facilities for cereals will reduce the local demand for sacks. In view of these marketing problems, both locally and abroad, sisal production is expected to continue to decline. Production in 1974 is projected at 45,750 metric tons compared with 50,280 tons in 1968. All of this sisal is expected to come from large-scale producers.

8.149. In order to help the existing sisal estates to operate profitably, several measures are planned. The ongoing sisal research programme will be continued with the objective of finding methods of increasing yields and improving quality. Research intended to find alternative end uses for sisal will also be intensified and producers will be encouraged to diversify production. With this in mind the Government intends to increase the amount of credit available to sisal growers. At present most of the credit available to sisal producers is provided to them by sisal dealers, who will frequently advance them up to 60 or 80 per cent of the value of their prospective crop. With the fall in prices the extent of these advances has declined. Also, they are available only to help finance sisal production, not to help farmers to diversify production. In order to overcome these limitations, the amount of credit available to sisal growers from the AFC will be increased and this will be available either for financing sisal production or for assisting estates to diversify and take up farm enterprises other than sisal.

8.150. *Cotton.*—The Government is anxious to see cotton production expanded considerably. Demand for cotton within Kenya will soon exceed the volume of local production as more textile mills come into operation. Cotton is also one of the few crops that can be sold easily in increased quantities on the world market. Cotton is also an attractive crop because it can be grown in many of the more marginal agricultural areas. But despite the fact that various measures designed to stimulate production have been taken already, results so far have been very disappointing. For the past four years the level of production has remained almost constant at about 12,000 to 14,000 tons of seed cotton per annum. The target level of production projected for 1970 in the Development Plan 1966-1970 (95,000 bales or about 56,000 metric tons) now seems to be exceedingly optimistic. Although a very high level of production would be welcome, expectations will probably have to be quite modest. For this Plan period the 1974 target production figure has been set at 20,000 metric tons. This represents a 40 per cent increase over the 1968 production level.

8.151. Substantially increased cotton production can be expected only if farmers are able to obtain much higher profits from their cotton crop. By far the most important means of increasing the profitability of cotton production would be for farmers to adopt better methods of husbandry and increase yields. In order to encourage the adoption of these improved practices several measures are being taken. The number of cotton demonstration plots is being increased. This will help to illustrate to a large number of farmers the benefits that can be obtained from timely planting, better weeding, the use of fertilizers and proper control of insect pests. Improved control of insect pests is probably the single most important factor that would lead to increased yields. In the past, even where farmers have been keen to control insect pests better, it has not always been easy for them to do so. Stocks of insecticides and spray pumps have not always been available in local markets and where they have been available, many farmers have had difficulty in paying for them. To help to overcome this difficulty the Government is considering introducing a subsidy on insecticides used in cotton production and extending credit to rural traders so that they can finance holding stocks of insecticides. It seems unlikely that the use of insecticides can be encouraged through a Government sponsored credit scheme for cotton farmers. A credit scheme for cotton farmers was introduced in 1965 but the farmers' loan repayments record was so bad that the scheme had to be discontinued.

8.152. The majority of cotton is grown on small-scale farms and this should continue to be the case. However, some farmers are able to get together with their neighbours and produce cotton in large blocks or strips. In this way the farmers can grow cotton on a sufficiently large scale to justify doing their cultivations with tractors and possibly using air spraying to control insect pests. The adoption of these methods does involve a much higher level of expenditure than traditional small-scale methods, and can be justified only if correspondingly higher yields are obtained. Previous experience with cotton blocks has not been entirely satisfactory. In some blocks, different farmers have planted their cotton at different times. This has meant that the crop has not matured evenly and consequently insect control has been made difficult. In other cases some farmers have not weeded their cotton properly and this has reduced yields. In future, block cultivation will be encouraged only in areas where the farmers are well organized and disciplined, otherwise the cotton yields obtained are unlikely to be sufficiently high to justify the expense involved. In 1968, the Cotton Board also established a large-scale cotton pilot project at Wamumu in Central Province. This involves cultivating about 400 hectares of land using large-scale methods. If this project is successful it is possible that similar schemes will be established elsewhere; however, experience so far at Wamumu has not been encouraging.

8.153. Cotton production could also be encouraged if growers were paid a higher price for their crop. However, unless there is to be some unexpected increase in the world market price of cotton, this possibility will have to be ruled out. In fact, major improvements will have to be made in the arrangements for processing and distributing cotton if the present producer price is to be maintained without the Government's subsidizing the industry. Following the Korean War, world market prices of cotton were high and the Cotton Board accumulated a surplus of well over K£1 million. This has now almost completely disappeared as a result of the deficits made by the Board in recent years. In order to avoid the Board making further deficits in future, several measures are contemplated. It is expected that major economies will be made through changing the method of paying cotton ginners and abolishing the present lint-price formula. The structure and operations of the Cotton Board are also being examined with a view to making economies. At the same time possible ways in which growers might participate in the ginning industry are being examined.

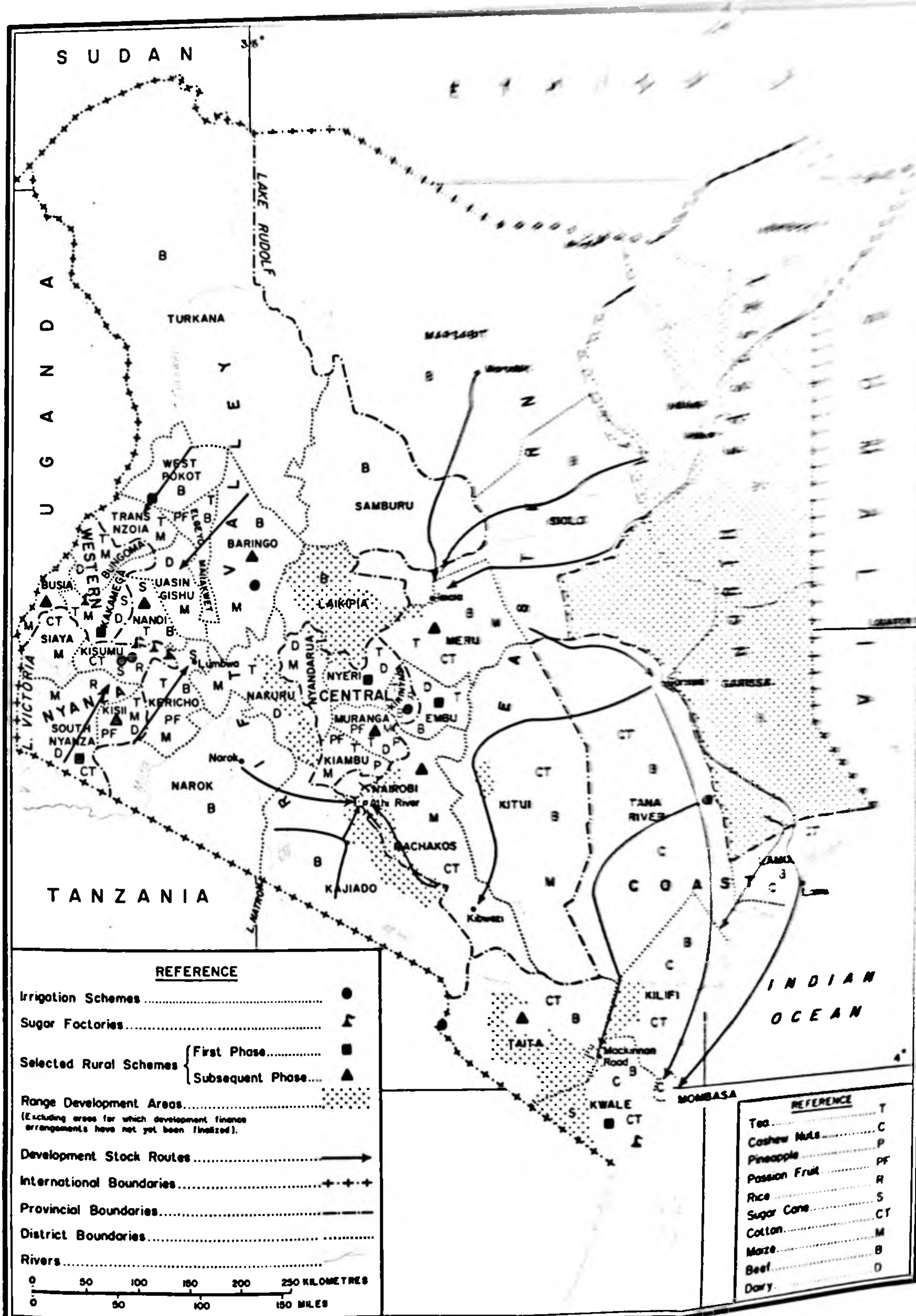
8.154. *Pyrethrum.*—The output of pyrethrum has increased rapidly in the last few years, both because the production of pyrethrum flowers has expanded and because the pyrethrins content of the flowers has been higher. Production of pyrethrins was only 56.8 metric tons in 1964, but this had increased to 150 metric tons by 1968. Likewise, Gross Farm Revenue from pyrethrum increased from K£0.9 million in 1964 to K£2.6 million in 1968. During the present Plan period, however, continued expansion of pyrethrum production will probably not be possible. In fact, production of pyrethrins in 1974 is expected to be the same as in 1968. The major factor hindering expansion of output is the limited market outlets available for pyrethrum, especially in view of the recent development of competetive synethetic products in the developed countries. Competition from synethetics may become more severe and this could mean that Kenya producers will have to accept lower prices in order to remain competitive in world markets. Both to increase the level of profitability of pyrethrum and to ensure that producers are in a better position to withstand a decline in price, emphasis during this Plan period will be given to measures intended to raise productivity. In particular, research and extension programmes will be designed to identify and introduce on to farms varieties of pyrethrum which produce more flowers and have a higher pyrethrins content. It is anticipated that yields will increase from the present average level of about 390 kilos per hectare to about 500 kilos by 1974. The pyrethrins content of the flowers should also increase during the next few years and it should be possible to produce the present quantity of pyrethrins in 1974 from an area of about 40 per cent less pyrethrum; the area of pyrethrum is expected to decline from some 28.000 hectares in 1968 to only 17,000 hectares in 1974. At present about 75 per cent of production comes from small-scale farms and their share of total output is expected to increase to about 80 per cent by 1974.

8.155. *Horticultural Crops.*—A combination of factors has made horticultural crops potentially one of the strongest growth sectors in Kenya's agriculture. It thus offers much needed scope for diversifying agricultural production. The wide range of ecological conditions in the country make possible the production of a large number of different fruits and vegetables. Not only do these meet virtually the entire needs of the local market, but horticultural crops are being exported in increasing quantities. The major horticultural export at present is canned pineapples, although several other fruits and vegetables are exported, especially by air freight to supply the high-priced off-season European markets. The accession of the East African countries to the European Economic Community as associate members and the possibility that air freight rates will be reduced make the prospects for increasing exports to Europe even better. In 1968 Gross Farm Revenue from horticultural crops amounted to about K£1.1 million and this is expected to double by 1974. Several measures will be taken in order to stimulate production. The Horticultural Research Station at Thika is being expanded and the scope of its work broadened to include training as well as research. The Ministry of Agriculture has created a Horticultural Crops Development Authority which has power to regulate and control the industry. Production of pineapples and the capacity of the cannery at Thika are being expanded by Kenya Canners Ltd. Finally, a horticultural market survey was completed recently by the Institute for Development Studies at the University College, Nairobi, and this will be most helpful in providing guidelines for horticultural development. During the Plan period much of the increased output will come from pineapples and passion fruit; these are discussed separately in the next two sections*.

8.156. *Pineapples.*—Production of pineapples is expected to increase very rapidly during the Plan period. Most of this increased production will be used to supply the pineapple canning industry. Production of pineapples for canning amounted to about 10,500 tons in 1967, of which about 6,900 tons were supplied by small-scale producers. This level of production was much lower than expected, partly because of unfavourable weather conditions, but mainly because of the failure of small-scale producers to grow pineapples in sufficient quantities. During this Plan period production of pineapples for the canning industry should increase substantially. Output in 1974 is projected at about 120,000 tons. Almost all of this increased production will go to the pineapple canning plant at Thika belonging to Kenya Canners Ltd., now operated by California Packers who market pineapples throughout the world under the well known Del Monte brand name. About 2,000 hectares of land at Thika have been leased to Kenya Canners Ltd., and they expect that the annual level of production from this land will have reached about 90,000 tons by the end of the Plan period. In addition, they expect to receive about 20,000 tons of pineapples annually from outgrowers at the end of the Plan period. More than half of this outgrower production should come from small-scale producers. Although present plans involve increasing the input of the cannery at Thika to about 110,000 tons by 1974, it is possible that Kenya Canners Ltd., will rent some additional land during the Plan period and increase production to an even higher level.

8.157. *Passion Fruit.*—At present, production of passion fruit is important only in the Kisii/Sotik area. A passion fruit juice factory has been built at Sotik and this is supplied by small-scale producers. Passion fruit is very

* Discussions have just been started on the possibility of starting a project intended to produce flower cuttings for export. This project could produce substantial exports before the end of the Plan period.



PROPOSED AGRICULTURAL DEVELOPMENT 1970 TO 1974

susceptible to a number of diseases, especially brown spot disease, and in 1965/66 the industry was nearly wiped out. This has been overcome. but in order to minimize the risks of infection passion fruit is now grown on a large number of small scattered plots. During this Plan period, it is expected that production of passion fruit juice will increase rapidly to about 1.5 million litres in 1974, compared with only about 560 thousand litres in 1968. By 1974, exports of passion fruit juice are expected to be worth about K£210,000. Much of this increased production will come from the Kisii/Sotik area, although it is expected that passion fruit will also be established at Taita, Thika and perhaps Eldama Ravine.

8.158. *Wattle Bark and Extract.*—In response to declining prices wattle production has diminished over the last few years; the area of wattle planted on large-scale farms has declined from about 35,000 hectares in 1959 to only 19,000 hectares in 1968. However, the price of wattle is expected to remain relatively stable over the Plan period and the area of land planted to wattle should increase by about 4,000 hectares by the end of the Plan period. Because wattle takes several years to mature, these increased plantings will not affect production during the Plan period. In fact, production will continue to decline during the Plan period on account of the reduction in plantings made a few years ago. Gross Farm Revenue from wattle was about K£860,000 in 1967 and this is expected to decline to about K£700,000 (in 1967 prices) in 1974.

8.159. *Cashew Nuts.*—Production of cashew nuts has increased significantly in the last few years, although it declined somewhat in 1968. Production is expected to continue to expand over the Plan period. In 1967 cashew nut production amounted to about 11,800 metric tons worth about K£420,000 to the growers. By 1974 production is expected to have increased to 15,250 tons worth K£545,000 (in 1967 prices). At present most of Kenya's cashew nuts are exported raw overseas, but it may prove possible to establish a modern cashew nut processing plant in Kenya during the Plan period.

8.160. *Other Minor Crops.*—In addition to the major crops discussed so far, a number of other minor crops are produced. These include coconuts, oil seeds, tobacco, groundnuts and macadamia nuts. In 1967 Gross Farm Revenue from these products amounted to about K£930,000. This is expected to increase to about K£1.3 million by 1974. In the longer term production of some of these crops could become important. For this reason, research work will be carried out on some of them, especially coconuts and castor and other oil seeds, during the Plan period. However, this research is unlikely to have much impact on production before the end of the Plan period.

LIVESTOCK

Introduction

8.161. Roughly four-fifths of Kenya is suitable only for livestock production, being too dry for reliable cultivation. Even in the higher rainfall areas much of the land is unsuitable for crop production and a high proportion of the country's livestock is found in these areas including about 50 per cent of the country's cattle population of about 7.2 million, about 45 per cent of its 3.7 million sheep, 25 per cent of its estimated five million goats, all pigs and most of the poultry. In both 1967 and 1968 the total value of livestock production amounted to about K£36 million, comprising about K£16 million of livestock production for subsistence and about K£20 million of marketed livestock output (*see* Table 8.12). This marketed livestock production represented about 29 per cent of total gross farm revenue. In 1967 and 1968, about 88 per cent of the total value of marketed livestock production came from cattle, either as cattle for slaughter or as dairy production. The remaining 12 per cent of marketed production came from all other forms of livestock, including sheep and goats, pigs, poultry, eggs and wool.

8.162. The potential for further development of livestock production in Kenya is very promising. At present, the productivity of most types of livestock is very low and there is considerable scope for increasing it. In 1968, the average cold dressed weight of all cattle slaughtered in Kenya was estimated to be only about 129 kilos. Steers take about four years to mature, whereas with intensive feeding this can be achieved in a much shorter time. The average milk yield of grade cattle is thought to be less than 1,300 litres per annum, while in temperate countries similar animals yield well over twice this amount; and zebu cows, which form the bulk of the female stock in Kenya, probably yield only about 150 litres per annum, on the average. Likewise, the potential for increasing the productivity of grazing is enormous. In an attempt to realize some of this potential, considerable resources will be allocated to livestock production programmes in this Plan period. However, many of these will be long term programmes which will not begin to produce significant returns before the end of the Plan period.

8.163. Essentially, efforts to develop livestock production will be aimed at using more effectively the existing assets, including the substantial numbers of exotic dairy cattle, wool sheep, high quality pigs and boran beef cattle. These will provide the foundation stock for breeding both to increase numbers and to raise quality. Because a relatively sophisticated level of livestock production based on exotic livestock has been build up, a valuable pool of skill, experience and knowledge of livestock production and processing in local conditions has been accumulated. These factors provide favourable conditions for further development. This development will help to raise the incomes of mixed farmers as well as pastoralists. In the range areas particularly, the available options for agricultural production are severely limited and development in these areas must depend primarily on increased livestock output. Not only will this increase the cash incomes of the pastoral people, but because their food supply is derived largely from their livestock, it will help to raise nutritional levels. From the national viewpoint also, the rising demand for protein foods, both in the rural and the urban areas, must be met primarily from increased livestock production.

Table 8.12

LIVESTOCK PRODUCTION, 1967, 1968 AND 1974

Item	Value of Production (K£'000) 1967(a)	1968(a)	1974(b)	Growth in Production 1967/1974	Average Annual Rate of Growth 1967/1974
				Per cent	Per cent
MARKETED PRODUCTION:					
Cattle for Slaughter ..	10,664	11,153	14,550	36·4	4·5
Dairy Products	6,636	6,571	9,330	40·6	5·0
Hides and Skins(c)	630	653	880	39·7	4·9
Pigs	577	565	676	17·2	2·3
Wool..	520	550	623	19·8	2·6
Sheep and Goats for Slaughter	404	445	500	23·8	3·1
Poultry and Eggs	312	324	439	40·7	5·0
Total Marketed Production	19,743	20,261	26,998	36·7	4·6
Non-Monetary Production	16,195	15,797	20,006	23·5	3·0
TOTAL	35,938	36,058	47,004	30·8	3·9

(a)In current prices.

(b)In 1967 prices.

(c)The figures shown for hides and skins refer only to production which does not originate from abattoirs, for these are treated as part of the manufacturing sector. It is assumed that all production outside abattoirs is exported and that the domestic tanning industry receives its hides and skins from abattoirs.

Table 8.13

DISPOSAL OF MARKETED LIVESTOCK OUTPUT 1967 AND 1974*

	1967 (K£'000)		1974 (K£'000)		Percentage Exported	
	Domestic Consumption	Exports	Domestic Consumption	Exports	1967	1974
Beef	8,791	1,873	12,450	2,100	17·6	14·4
Dairy Products ..	5,376	1,260	8,805	525	19·0	5·6
Hides and Skins(a)	—	630	—	880	100·0	100·0
Pig Products ..	347	230	442	234	39·9	34·6
Wool	—	520	—	623	100·0	100·0
Sheep and Goats	400	4	500	—	1·0	—
Poultry and Eggs	292	20	389	50	6·4	11·4
TOTAL ..	15,206	4,537	22,586	4,412	23·0	16·3
F.O.B. Value of Exports at current prices ..	—	6,569	—	6,450	—	—

*At 1967 producer prices except for the bottom row of figures.

(a) See footnote (c) to Table 8.12.

8.164. For the agricultural economy as a whole, and particularly for mixed farmers, livestock development appears to be one of the most promising means of diversification. While available markets, especially export markets, for most important crops are severely limited, this is not true of markets for meat. World consumption of meat is rising rapidly and projections made by international organizations suggest that meat production will not grow fast enough to meet requirements. From Kenya's viewpoint, meat production is not constrained seriously by the lack of markets (with the proviso that at present certain disease control regulations prevent the country from exporting meat to the European markets). The main constraint is on the supply side.

8.165. Livestock production is also important as a source of raw materials for processing. In 1967 the output of the food processing industries was valued at K£37.2 million; the direct processing of meat and dairy products accounted for 39 per cent of this total. The continued development of livestock production will provide further impetus to the expansion of output in these industries. Other industries, the most notable examples being leather and footwear, will also benefit from the increased production of hides and skins.

8.166. The levels of livestock production in 1967 and 1968 and the projections for 1974 are shown in Table 8.12. Total livestock production in 1967 amounted to K£35.9 million and this should increase to K£47.0 million (in 1967 prices) by 1974. This represents an increase of about 31 per cent over the period, or an average annual growth rate of 3.9 per cent. However, livestock production for subsistence is expected to grow by only three per cent each year, from K£16.2 million in 1967 to K£20.0 million in 1974, while marketed output should grow at about 4.6 per cent per annum, from K£19.7 million in 1967 to K£27.0 million in 1974. The disposal of this marketed output between domestic consumption and exports is shown in Table 8.13. In 1967 exports accounted for about 23 per cent of the value of marketed livestock output. By 1974 this proportion is expected to have decreased to about 16 per cent, for output is not likely to increase as rapidly as domestic consumption. As far as individual commodities are concerned, a small increase in beef exports is expected, although the value of dairy products exported in 1974 is likely to be only about 42 per cent of the 1967 level. The decline in the total value of livestock exports is accounted for largely by this fall in dairy exports. Nevertheless the f.o.b. value of livestock exports in 1974 is expected to be only a little lower than the 1967 level, primarily because it is anticipated that the price received for beef exports will rise.

8.167. Public development expenditure on livestock production is shown in Table 8.14. This has been divided into three groups; category "A" includes direct expenditure through the development budget by the livestock departments of the Ministry of Agriculture; category "B" includes expenditure by other Government departments or statutory organizations which also passes through the development budget; category "C" includes expenditure by international agencies which does not pass through the development budget but which is directly related to the projects included in categories "A" and "B". Total development expenditure on livestock over the Plan period is projected at K£11.2 million; K£8.8 million of this, or about 80 per cent, will pass directly through the development budget. Expenditure in category "A" accounts for about half of the total development expenditure on livestock, "B" for almost 30 per cent and "C" for the remainder. A large part of the expenditure in categories "B" and "C" will be for development of the range areas. This programme is expected to absorb about 58 per cent of all livestock development expenditure; this is without taking account of the development activities of the Veterinary Department which are spread across the whole country, including the range areas. An item of expenditure not included in Table 8.14 but which affects livestock development is outlays on land adjudication. Part of the expenditure shown in the table has also been covered in earlier sections of this chapter, including expenditure on range credit, education, training and livestock research. This is included here to give a more complete picture of public development expenditure on livestock. The remaining items of expenditure are discussed in greater detail later in the sections dealing with each aspect of livestock development.

8.168. Although the services required for livestock development have some common features, special requirements do exist for particular types of livestock and for different ecological conditions. The existing structure of the technical services within the Ministry of Agriculture reflects the requirements of Government services for the promotion of increased livestock production. Basically, this structure separates production departments for individual livestock items or groups of these from "common services" required for all. The latter are primarily the clinical and disease research activities of the Veterinary Department. However, this department also provides artificial insemination services through a sub-department. The "production" departments dealing with livestock are the Range Management Division and the Animal Husbandry Division. They also undertake production-oriented research. The functions of the Livestock Marketing Division are apparent from its title. However, its marketing activities are confined largely to beef cattle, although it also handles some sheep and goats for slaughter. The extension activities, particularly of the "production" departments, require strengthening. Since independence, far-reaching changes in the structure of agriculture have taken place in the country, affecting both arable farming and livestock husbandry. Large areas of farm land have been transferred from their former European owners to African farmers, both large and small. The farmers who have been replaced had quite different requirements for extension services. For livestock, their main need was for clinical veterinary services. As a result, extension activities directed towards raising

DEVELOPMENT EXPENDITURE ON LIVESTOCK,

Table 8.14 K£'000

Item	1969/70	1970/71	1971/72	1972/73	1973/74	Total
A. Direct Expenditure by Livestock Departments:						
Range Management Division	223	216	168	184	195	986
Animal Husbandry Division	192	225	226	231	266	1,140
Veterinary Department:						
Research and Vaccine Production	96	172	156	208	268	899
Veterinary Field Services	156	213	230	260	299	1,158
Artificial Insemination ..	26	54	15	17	27	139
Tsetse Fly Eradication ..	74	75	75	80	83	387
Total Veterinary Department	352	514	476	565	677	2,583
Livestock Marketing ..	156	174	167	185	184	866
Total All Departments ..	923	1,129	1,037	1,165	1,322	5,575
B. Expenditure by other Government Departments or Statutory Organizations:						
Water Development ..	224	104	76	72	75	551
Range Credit	355	437	550	600	500	2,442
Rural Dairies	1	15	20	25	30	91
Beef Finishing	—	25	30	40	50	145
Total	580	581	676	737	655	3,229
Total Central Government Development Expenditure (A + B):	1,503	1,710	1,713	1,902	1,977	8,804
C. Expenditure Outside the Development Budget: ..	633	580	437	388	395	2,433
GRAND TOTAL (A+B+C)	2,136	2,290	2,150	2,290	2,372	11,237

production and improving management were weak. A good deal has already been done to correct this deficiency but animal husbandry services will be strengthened further.

8.169. The Animal Husbandry Division was established in 1967 following recommendations made in the report of the East African Livestock Survey undertaken by a United Nations team. The Division has responsibilities for animal production primarily in the "high potential" areas. However, the extension services it has been able to provide for dairying, poultry, sheep and pigs greatly need strengthening. For some aspects of livestock production, particularly pigs and poultry, very few qualified personnel are actually operating. The availability of trained manpower is a severe constraint which will take some years to overcome. Although perhaps less severely, this problem also affects the Range Management Division. Securing qualified extension staff from abroad to supplement the output of domestic training schemes will continue to be necessary for some time.

8.170. Reference has already been made in earlier parts of this chapter to the need for research, not only to control disease but also to promote production, and it is intended to enlarge the resources allocated for production-oriented research. The more intensified and sophisticated livestock production becomes, the greater the potential losses to the economy from outbreaks of disease. For an individual peasant farmer, the loss of a single animal can result in the disappearance of a large part of his productive capacity and seriously aggravate the burden of indebtedness because of loss of income. Intensified disease research and closer veterinary coverage will be even more vital in future.

8.171. In the evaluation of the livestock development programme, it is important to emphasize that investment in livestock development is of a relatively long term nature. It takes at least three years from calving to first lactation for a dairy animal, so that any investments made to step up breeding will not yield returns for several years. Improvements to the quality of breeding stock which may have to work themselves through several generations take even longer. For the range development programme, a large part of the investments must be directed into the development of new ranches, including the establishment on these of breeding stock. Other aspects of the programme are intended to produce more immediate return, for example, the development of marketing facilities, but the establishment of new ranches and the development on these of their own breeding stock will have its "pay-off" several years hence.

8.172. An important element in promoting livestock production deserves mention. This is the need for the right kind of processing facilities to handle livestock products. A large proportion of the output of the industry requires processing prior to consumption, partly in order to overcome the problem of perishability and partly to reduce raw livestock products to the many individual commodities which have their own separate markets. Given the conventional sectoral breakdown of the economy, most of these processing facilities are classified in the manufacturing sector and discussed in the relevant parts of Chapter 10. It is, however, important to note, that, in such cases agricultural and manufacturing activities require to be carefully co-ordinated.

Plans for Different Types of Livestock and Livestock Services

8.173. *Dairying*.—Most of the adult female cattle in Kenya are zebu cattle which produce very little milk. Commercial dairy production depends primarily on the much higher yielding grade cattle. Future development of dairying must depend largely on increasing the numbers and productivity of these grade animals. Improving the processing and marketing of dairy products are also vital to the growth of the industry, and these functions must be clearly co-ordinated with production policies.

8.174. There are at present approximately 3.9 million zebu cows and 273,000 mature grade cows in the country, producing perhaps 730 million litres of milk a year. Of this amount, marketed production is estimated at 290 million litres. A little under half the mature dairy cattle are on smallholdings, particularly settlement schemes. Although the total contribution of zebu cows to commercial production is small, the largest single centre of marketed smallholder milk, at Mariakani, is based on zebu cattle.

8.175. The introduction of grade cattle on smallholdings by transfer from previous European owners goes back only a few years and gained impetus only with the development of settlement schemes. A section dealing with Rural Dairy Development Schemes (RDDS) has been operating within the Kenya Dairy Board to promote dairy development on small farms. In 1967/68, production from the RDDS contributed 20 per cent of the total intake of the Kenya Co-operative Creameries (KCC), the major processor (their intake is 70 per cent of total marketed production—*see* below). The RDDS have been developed largely on the basis of equipment from UNICEF for the milk centres. Production from this source has been rising and its contribution to total marketed production is expected to continue growing. Milk production is already important in the cash income of smallholders and, on settlement schemes particularly, it is a critical element accounting for 31 per cent of total recorded sales from settlement schemes in 1967/68. However, the rapid growth of dairy production on smallholdings has perhaps run ahead of the extension and other facilities required to enhance its efficiency. Husbandry practices leave a good deal to be desired and yields per cow are low. Because of the indiscriminate use of very low quality bulls, instead of artificial insemination, there is evidence of a deterioration in genetic potential. This must be reversed and husbandry practices improved.

8.176. Although a statutory corporation, the Kenya Dairy Board exercises regulatory functions in the industry; the marketing structure and price policy are dominated by the Kenya Co-operative Creameries through which the bulk of marketed milk is channelled. Apart from the facilities available at the usually small RDDS milk centres and the Mariakani Milk Scheme, all other processing facilities are owned and operated by the KCC. The prices paid for milk or milk products delivered to its processing plants are also determined by the KCC.

8.177. The existing price structure is based on a differentiation of milk into three categories, quota, contract and butterfat, each of which receives a different price. The origins of this system go back to the time in the development of the industry when production exceeded internal demand and surpluses had to be exported in the form of butter at a loss. In the internal market, there was and still is a problem of seasonality in production and the present quota system was intended to overcome this by ensuring a minimum level of deliveries in the dry season. Contract milk is whatever the KCC can absorb within the limitations imposed by the rigidities of the quota system and the need to minimize surpluses of butter. The highest priced commodity is quota milk (which is fluid milk) and the lowest butter-fat. However, an important change has taken place during the last few years in the relative quantities absorbed in each of these categories. With the change in the structure of the industry following the transfer of large areas of land and livestock from European to African ownership, the growth of dairy production was slowed down. At the same time, internal consumption (and sales to Uganda and Tanzania), particularly of fluid milk, rose rapidly, leading to a sharp fall in exports of low-priced butter. This has enabled higher prices to be paid to dairy farmers. However, the price structure described above, with all its accompanying rigidities, remains and is acting as a stultifying influence on the growth of the industry.

8.178. On the demand side, favourable conditions exist for the expansion of production. The consumption of dairy products is highly income elastic and is expected to grow rapidly with the rising incomes projected for the Plan period. Fears have been expressed over the effect on consumption of the changing composition of the urban population following the emigration of growing numbers of Asians who are large consumers of milk. It is unlikely that the consequences of this will hold back the growth of domestic consumption. If estimates of unrecorded sales are also taken into account, fluid milk consumption during the last five years has grown 6 to 7 per cent per annum, excluding exports to Uganda and Tanzania. Although this high rate of consumption is not expected to be maintained, a steady upward trend is expected.

8.179. On the basis of the above considerations, a target of 403 million litres of milk equivalent marketed is projected for 1974. On an annual basis, this represents a cumulative growth of just under 5 per cent. The target is expected to be met from a rise in numbers of grade cattle and an increase in yield per cow, the latter perhaps making the more important contribution. Although the absolute quantity of milk from humped zebu cattle will rise a little, its proportion in total marketed production will fall, i.e., almost all growth will originate from grade stock and the bulk of production from zebu cattle will continue to be absorbed in subsistence, as at present. There is a lively market for grade stock in Uganda and Tanzania but it is expected that only a small number surplus to domestic requirements will be available for export.

8.180. Apart from artificial insemination, most of the direct outlays on dairy development by the Ministry of Agriculture will go towards research, education and training; expenditure on the latter has already been dealt with and the development of artificial insemination services is examined later.

What remains are direct expenditures undertaken by the Animal Husbandry Division and funds directed towards building new rural dairies to replace the aid formerly received from UNICEF but which is terminating in 1969. It is likely that funds allocated for rural dairy development will be channelled through the Kenya Dairy Board. As far as direct expenditures by the Animal Husbandry Division are concerned, these include stock improvement schemes, a progeny testing programme, housing (which accounts for 58 per cent) and a minor item relating to the national sahiwal stud. The phasing of these expenditures is shown in Table 8.15. Progeny testing and stock improvement schemes will also affect other livestock but the major part of these schemes will be directed towards dairy cattle.

DEVELOPMENT EXPENDITURE FOR THE DAIRY INDUSTRY

Table 8.15 *K£'000*

	Expenditure by Animal Husbandry Division		Rural Dairies	Total
	Housing	Other		
1969/70	23	3	1	27
1970/71	26	10	15	51
1971/72	30	20	20	70
1972/73	30	27	25	82
1973/74	35	43	30	108
TOTAL	144	103	91	338

8.181. In the development of rural dairies, the emphasis will be on the provision of cooling facilities. Attention will also be paid to proper training of the co-operative personnel running the rural dairies. Milk marketing and processing are highly skilled activities and milk supplied from these dairies must be wholesome. Also, the proper maintenance of the accounts of members of co-operatives is essential. Many primary dairy societies are deficient in these matters. However, the courses now available at the Naivasha Dairy Training School are expected to contribute to a significant improvement in the capabilities of co-operative dairy managers.

8.182. Larger scale processing facilities will also require expansion. Hitherto, the KCC has raised its own finance for further development, mainly from commercial sources and internal savings. However, the Government might have to make a contribution in this respect during the Plan period. The extent of this will depend on the degree of public control of processing that is established and the need for the location of processing facilities in areas where they may not be immediately profitable, but which will contribute to the long-term development of the industry. The importance of careful planning in the expansion of processing plants has already been emphasized. The three major criteria which should affect development policy in this respect are:—

(i) Potential sources of new milk.

(ii) Sales outlets for the various products that can be manufactured.

(iii) The economic and nutritional interests of farmers and considerations of efficiency in the industry as a whole.

During the Plan period, two large new plants may be necessary, requiring perhaps up to K£500,000.

8.183. Improved management of dairy farming operations will be a crucial factor in the attainment of the production target. Undoubtedly, there is room for a substantial improvement of yield per cow from existing animals. Pastures are of low quality and supplementary feeding to improve yields hardly exists at present. Calf and heifer rearing practices affect the milking quality of animals when they reach maturity, but these get insufficient attention. Calving intervals are long and this may be due to breeding diseases or bad husbandry and inadequate feeding. Long calving intervals mean loss of production. Improvements to affect these aspects of livestock husbandry require substantial expansion of extension services, directed at both husbandry practices and disease control.

8.184. Perhaps more than in any other livestock industry, serious problems of pricing and marketing policy exist in the dairy industry and these have a direct bearing on its future growth. Reference has already been made to the three "products" for which dairy farmers are paid by the KCC. Considerable controversy has centred round the "quota issue" over the last few years. Because of the wide price differential between quota and other milk, quotas are sought for reasons which no longer bear much relationship to the original objectives of the system. The pattern of demand confronting the industry as well as the structure of its suppliers has changed radically during the last few years but its price and marketing policies do not recognize this sufficiently and bear little relationship to efficiency and other economic considerations. In addition, there has been a rapid growth in unit processing costs during the last few years. It requires to be determined whether the processing factories are being operated efficiently, whether their location is right and whether they are turning out the right kind of products. There is also the problem of the relative roles of the Kenya Dairy Board and the Kenya Co-operative Creameries in the industry. Hitherto, the former has not been strong enough and the latter, not unnaturally, has acted primarily in the interests of its members without paying much attention to the wider problems of the industry. It is important that these questions should be carefully examined and it is intended, early in the Plan period, to undertake an investigation into the following problems:—

(i) The producer price structure to determine whether it is conducive to efficiency in production.

(ii) The problem of seasonality in production and economic approaches to its solution.

(iii) The pricing of outputs to determine whether the right "mix" is being produced from the point of view of consumer demand.

(iv) The location of facilities in relation to efficiency in processing and development of the potential for dairying.

8.185. *Artificial Insemination.*—The growth and development of the dairy industry is intimately linked with the provision of artificial insemination (AI) services. Approximately half the grade dairy cattle in the country are now held by smallholders. The 25,000 to 30,000 smallholders who own this stock cannot afford to keep bulls of a standard essential to maintain or improve the quality of the progeny. AI services have therefore been strengthened over the last few years, particularly to meet the requirements of smallholder dairy farmers.

8.186. During the past three years, the Swedish Government has made available very considerable assistance to develop and run the Kenya National Insemination Services (KNIS). This assistance has taken the form of development of the Central Artificial Insemination Station (CAIS) at Kabete and the direction and promotion of AI field services. In 1966, before development was stepped up, the KNIS carried out 35,000 to 40,000 inseminations a year. Another 30,000 were undertaken by the Department of Settlement which operated its own service. There also existed varying levels of county council involvement in the provision of AI. In 1967, KNIS took over the AI services on settlement schemes, although the staff concerned continued to be employed by the Ministry of Settlement which also continued to collect fees for the AI services provided, but made over a part of these to the Ministry of Agriculture. For county councils also, KNIS took over the operational control of AI staff, but these continued to be paid by the county councils. This history of centralization of operations without putting all personnel concerned under a single employer has created some problems which require solution in order to promote the further development of AI services.

8.187. During the last two years particularly, the foundations have been laid for a substantial improvement in AI services. There is no longer any problem of semen production as the CAIS is sufficiently developed to supply all requirements. The essential part of future development therefore lies in more efficient and more intensified provision of AI services in the field. In the last plan, a target of 450,000 inseminations (about 150,000 pregnancies) had been set. However, this could not be realized because of staff shortages created by the dispersal of effort following too rapid opening of new areas of operations, insufficient training for existing staff and serious difficulties in transport. In 1968, only 200,000 inseminations were made, resulting in approximately 70,000 pregnancies. The target for 1974 is 350,000 inseminations to achieve about 120,000 pregnancies. This represents an increase of 71 per cent over the level attained in 1968 and is double the level achieved in 1967. It is intended that 80 per cent of all inseminations will be for grade cows and 20 per cent for zebu cattle. The up-grading of zebu cattle will result, of course, in the introduction of increasing numbers of half-breed stock into the national dairy and beef herds.

8.188. The development of AI services is to be achieved by the addition of some new equipment and other facilities at the Central Artificial Insemination Station, the construction of storage facilities elsewhere, along with the provision of associated equipment, the motorization of inseminators, the recruitment of new supervisory staff, and the construction of staff housing in the rural areas.

8.189. Continued Swedish aid for AI services has been requested and is likely to be forthcoming. Under arrangements tentatively agreed with the Swedish Government, the Kenya Government's direct capital expenditure will be confined to the provision of housing; investment on this will be as follows:—

	(K£'000)
1968/69	26
1970/71	54
1971/72	15
1972/73	17
1973/74	27
TOTAL ...	139

All other capital expenditure will be provided by the Swedish Government and will consist of the items and amounts set out in Table 8.16.

ARTIFICIAL INSEMINATION—SWEDISH EXPENDITURES

Table 8.16 — *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Buildings	72	10	10	10	10	112
Machinery and Equipment ..	5	7	3	3	3	21
Vehicles	11	14	11	11	11	58
Livestock..	10	10	—	—	—	20
TOTAL	98	41	24	24	24	211

8.190. Improvements will be directed primarily towards the consolidation of services in existing areas. However, for reasons already mentioned in the previous section on dairy development, this should not mean the complete absence of AI services in other areas where significant numbers of grade cattle already exist. Inseminators will be given more intensive training and better supervision. They will also be provided with vehicles, as far as possible. This will enable them to cover larger areas and to take the service directly to farms. New methods of semen storage will provide additional flexibility for the service.

8.191. As the service is extended, unit costs will decline, but will still remain above the price charged to farmers. At present, farmers pay Sh. 10 per pregnancy (about three inseminations). The full cost of this to the KNIS is about Sh. 40. It is felt that this substantial subsidy is desirable in order to maintain the quality of the national dairy herd and to secure its expansion. It will be continued during the Plan period.

8.192. It is also essential that the service be more effectively centralized. This process is linked to the need for more intensive training of inseminators. Because some staff are employees of county councils, working on different terms of service and recruited on the basis of different qualifications, it is difficult to establish the necessary standards applicable to all personnel in it. Such standards are desirable to impart to the service the improvements in quality which are desirable and, at the same time, to offer personnel adequate scope for the development of careers. The need is for better rather than more inseminators and a single employer offering the same terms of service to all employees is required to achieve this objective. It will require the absorption of suitable staff at present employed by county councils into the KNIS establishment and the termination of any remaining responsibilities of the Ministry of Lands and Settlement in this field. There is also a need for expansion of numbers in supervisory positions in order to make the field services more effective.

8.193. *Beef Production.*—Beef is produced in the dry range lands which form four-fifths of the country, as well as the high potential areas. Both these offer conditions suitable for the further expansion of beef production. However, the greatest opportunities are in the range lands, and all but a small proportion of development expenditure on beef production during the Plan period will be concentrated in these. The range lands consist of the following categories of land:

(i) Existing commercial ranches	10,400 sq. km.
(ii) Subsistence range lands	435,000 sq. km.
(iii) National Parks	28,500 sq. km.
(iv) Unoccupied and unallocated public lands mostly in the coastal hinterland	18,100 sq. km.

Of the 7.2 million odd cattle in the country, it is estimated that 12 to 13 per cent are slaughtered annually. For 1967, the number slaughtered at this off-take rate was about 900,000 head, and yielded about 118 million kilos of meat of which approximately 55 million kilos were marketed. Out of the total numbers slaughtered, about 85,000, or 9 per cent, originated from established commercial ranches in the large farm areas. However, animals from these ranches are a good deal heavier than those from other range areas—about 190 kilos as against 120 kilos—and therefore accounted for a larger share of total production than that suggested by numbers slaughtered.

In the range areas, production is characterized by conditions of traditional pastoralism with little or no modernization. The herds are owned by semi-nomadic people who make periodic moves in search of water and grazing. Although some progress has been made towards the improvement of livestock production practices in these areas during the last few years, only the surface of the problem has been scratched. In terms of production methods, commercial ranches have little in common with other range areas. However, the commercial ranches do rely heavily on the range areas for the production of immature stock which they purchase for fattening and sale for slaughter.

8.194. Where these exist, cattle are moved to markets along stock routes. However, the existing network of stock routes is very rudimentary and it is difficult to get animals to market out of all the range areas. The problems of marketing have been particularly difficult during some recent years, due to shifta activities in North-East Province. Except for direct sales to abattoirs by the commercial ranchers, cattle are purchased from pastoralists by private traders or by the Livestock Marketing Division for sale to the Kenya Meat Commission or direct to butchers.

8.195. Although it occupies a critical position in the beef industry, the Kenya Meat Commission (KMC) processes less than a quarter of all beef produced. Its operations are governed by the producer and wholesale prices prescribed by the Government. These prices are fixed annually. In recent years, about half of the Commission's production has been sold in the domestic market and the other half exported, either in cans (the bulk) or as frozen and chilled beef. Exports of the latter have been restricted by disease control legislation in the major markets in European countries. Although less distorting than in the case of the dairy industry, the KMC's price and marketing policies also have some of the problems of the KCC. A recent study undertaken by a group of economists from the University College underlined the high costs of processing at the KMC and also pointed out anomalies in the existing system of grading meat, as well as cross-subsidization between grades and between exports and domestic consumption. Some changes have since been made in the grading system. The Commission has also been authorized to vary prices to producers and wholesalers according to fluctuations in demand and supply within prescribed limits.

8.196. It has already been indicated that vast under-utilized assets are available in the range areas. As far as markets are concerned, no serious constraints are likely to operate during the Plan period—the problem will be to produce enough beef to meet rising internal demand and maintain exports at the present level. For 1974, a production target of 192 million kilos is envisaged. (This includes marketed and non-marketed production.) Although only 29 per cent above the 1967 level (i.e. a cumulative annual growth of 3.5 per cent is projected) it will not be easy to realise and any shortfall will mean a proportionate reduction in exports. Several critical assumptions underlie this target. It is assumed that off-take will rise to 14.1 per cent, thus making a larger number of cattle available for slaughter. The average carcass weight of cattle slaughtered is also expected to grow by 4.6 per cent, or nearly 6 kilos over the Plan period. The growth in the off-take rate will be closely related to the improvement of livestock marketing facilities, discussed in the next section. A large number of the additional stock are expected to reach markets from the North-East region. However, present information on the number of livestock in that region is based on very approximate notions. If it is significantly below these estimates, the production target will not be realised. Another important proviso is that no serious outbreaks of disease will occur to hinder the movement of cattle out of producing areas.

8.197. The range programme will require the efforts of several Government departments and statutory organizations. Their combined expenditures, as well as outlays which will be made outside the development budget by international aid agencies, will form the largest part of total expenditure on livestock development—58 per cent. A detailed breakdown of expenditure is shown in Table 8.17. The Range Management Division's share of total expenditure is relatively small. The largest item in the total will consist of credit advanced to ranchers through the Agricultural Finance Corporation. Item 6 in the table, beef finishing, refers to development outside the range areas. A part of category B expenditures, made directly by international aid agencies, also relates to research on beef finishing. A large and important item of expenditure directly related to range development but not included

DEVELOPMENT EXPENDITURE IN THE RANGE AREAS

Table 8.17 *K£'000*

Item	1969/70	1970/71	1971/72	1972/73	1973/74	Total
A. Expenditures by Government Departments and Statutory Organizations						
1. Range Management Division	223	216	168	184	195	986
2. Ancillary Veterinary Services	39	35	33	30	30	167
3. Livestock Marketing ..	156	174	167	185	184	866
4. Ranch Credit	355	437	550	600	500	2,442
5. Water Survey and Development	224	104	76	72	75	551
6. Beef Finishing	—	25	30	40	50	145
TOTAL A ..	997	991	1,024	1,111	1,034	5,157
B. Expenditure Outside the Development Budget ..	329	366	298	219	248	1,460
TOTAL A AND B ..	1,326	1,357	1,322	1,330	1,282	6,617

here will be that undertaken by the Land Adjudication Department. Two-thirds of the total area to be registered during the Plan period will consist of range land on which other investments to promote beef production will also be made. Apart from research on beef finishing, "expenditure outside the development budget" will consist primarily of another project related to the main range development programme and a water survey project in the range areas.

8.198. The objective underlying the range development programme is to convert traditional pastoralism into commercial livestock production. It is expected that by the end of the Plan period, 2.2 million hectares of range land will be under relatively intensive development (this includes the existing commercial ranches) and another 11.4 million hectares, mostly in northern Kenya, under extensive development. The programme in each area will be designed to suit local conditions. The foundations will be laid for future development in the range lands by the introduction and establishment of modern methods of beef production. This will form the basis for further intensification of development and its extension to other areas in the years after. Although the programme is expected to make a substantial contribution to the growth of beef output during the Plan period, this is essentially a long-term programme which will yield its maximum benefits after the end of the Plan period.

8.199. Expenditure for this project will consist of, first, a credit operation for four types of ranches and, secondly, funds for a number of Government departments or agencies to finance livestock marketing, range water development and ancillary technical services. Funds for each of these are intended to be allocated as follows:—

	(*K£*'000)
CREDIT:—	
Ranch Investments	857
Working Capital	514
Ancillary Technical Services	129
Total Credit	1,500
OTHER SERVICES:—	
Livestock Marketing	429
Range Water Survey and Development	296
Ancillary Technical Services from:—	
(1) Range Management Division	214
(2) Veterinary Department	107
Total Other Services	1,046
All Expenditure	2,546

Ranch credit will be channelled through the Agricultural Finance Corporation in which a special section has been set up for the purpose. For water development, similarly, a special Range Water Section has been established within the Water Development Division. The above figures differ from those shown in Table 8.17 because the latter also include funds for range development from the Government's own resources and from other sources. It is also hoped that in the last year or two of the Plan period finance for a second phase in the range development programme will have been negotiated with one or both of the donors financing the first phase, as well as other donors.

8.200. The IDA/SIDA investments on ranches envisage developments of four types of ranches, numbering 60 in total and covering an area of over 800,000 hectares. These will receive funds for the development of stock watering, dipping/spraying and stock handling facilities, essential ranch structures, fire-breaks, vehicles and equipment, improved bulls, bush control, fencing, and working capital. Expenditures on such items as bush control, fencing and more elaborate ranch machinery and equipment will be concentrated primarily on the existing commercial ranches. The four types of ranching enterprises identified separately will consist of the following:

(i) *Group Ranches.*—During the Plan period, several group ranches will be established, mostly in Masailand. These will have an average size of about 14,000 hectares, with an initial stock carrying capacity of about 2,000 units, rising to 3,000 units after development. The land and permanent improvements on these ranches will be owned jointly by the members. Group titles will be held under the Land Titles Adjudication Act, 1968 and the Land (Group Representatives) Act, 1968. The latter was enacted specially to enable the establishment of group ranches. While the land and permanent improvements will be owned collectively by the group, each member will own his livestock individually. The group as a whole will make loan repayments on behalf of members and provide the members with facilities for spraying and water supplies, etc. The group will meet the cost of providing these services through levying a charge on the individual members. The charge will be based on the number of stock kept by each member.

(ii) *Company Ranches.*—For these, land will be leased from the Government and shareholders will contribute cattle and/or cash. All animals will be collectively owned and disposed of. The enterprises will be operated by paid employees and policy will be made by a board of directors. Company ranches will be concentrated mainly on Government-owned land in Taita District. In the first phase, 10 ranches of 26,000 hectares each will be established. Twenty per cent of development capital and a small amount of working capital will be expected to come from shareholders. Some of these ranches may be set up as co-operatives rather than as limited liability companies.

(iii) *Individual Ranches*.—These will cater for "advanced pastoralists" mainly in Kajiado District. The first phase will consist of 10 ranches, each of which will cover 800 hectares and be capable of supporting 200 head of livestock after development. Watering, dipping/spraying and stock handling facilities will be shared between several ranches. Owners will be expected to provide basic breeding stock and 20 per cent of the initial development expenditures.

(iv) *Commercial Ranches*.—These are existing enterprises, but those selected for assistance will be the more recently initiated ones. For the first phase, 20 of them, of 12,000 hectares each, with developed carrying capacity of 3,000 head of cattle, will be assisted with loan finance for further development.

8.201. While credit for development will come from IDA/SIDA funds, the UNDP/SF project for the range areas is intended to make possible full and effective use of credit. The project has been underway for two years already. Its objectives are to strengthen the capacity of the Range Management Division to undertake land use surveys as a basis for detailed range development planning, to provide training for range officers, field instructors, and intensify applied research on specific problems of range development and production. The bulk of the expenditure under the project is included in item B of Table 8.17, but the Government's counterpart contribution is part of the expenditure shown for the Range Management Division in the same table.

8.202. The development of water supplies in the range areas is a critical component of the programme. In addition to water for the four types of ranches to be developed, water will also be provided in range areas where no specific ranch development will take place. These will be primarily the areas of "extensive" development in northern Kenya. Large parts of these areas cannot be effectively utilized for grazing because of the absence of water. This will change following the development effort to be undertaken by the range water section of the Water Development Division. More controlled and systematic use of grazing will become possible and the level of off-take raised. It is proposed to build watering facilities at roughly 30 kilometre intervals during the first phase. Forty small tanks and dams of about 9 million litres capacity and 10 boreholes will be constructed. However, sources of water in these areas are not fully known and a separate survey to search for water has been started. This survey is part of an international project which will also include the adjacent parts of Somalia and Ethiopia.

8.203. Areas which will not be included in expenditures from the IDA/SIDA loan will have development assistance from domestic sources. The "normal" lending operations of the Agricultural Finance Corporation for ranch development will be continued, as will the cash grants that have been made for several years through the Range Management Division to assist new development. Community grazing schemes which are essential to introduce more rational grazing in some areas will be promoted.

8.204. The range development programme is under the control and direction of the Range Management Division. However, because several departments will be involved in the various aspects of the programme, close co-ordination of operations will be essential. A large part of the responsibility for this will rest with the Range Management Division. In addition, the Division will provide the extension services required for the programme. For the IDA/SIDA project, special financial provision has been made for the Range Management Division and the Veterinary Department to provide technical services in the north-east and in certain non-project areas which are likely to form part of a second phase of range development.

8.205. A part of the large area of unoccupied land in Coast Province will also be brought into range production, largely on the basis of development by private capital. An area of about 500,000 hectares on the Galana River in Kilifi District has already been leased to a private firm for development. This enterprise is being developed on a cattle/hunting/game viewing economy. A gradual growth in stocking is envisaged over a 20-year period. At the end of this period, 26,000 cattle are expected to be reared. A smaller enterprise of 125,000 hectares in Lamu District is now well advanced, but the emphasis in this will be mainly on cattle. An adjacent enterprise in which people living on the periphery will participate is also being planned, with the intention that it should be managed for a specific period by the larger enterprise which will have more management expertise at its disposal. These enterprises are on land for which the Range Management Division has no development proposals of its own and the scheme will, therefore, contribute to bringing into production land which hitherto was serving no useful purpose. The Government holds an option for equity participation in those enterprises but even if this were to be taken up, the amount involved will be small.

8.206. Reference has been made to the possibilities of developing beef finishing in the high potential areas on the basis of feed crops grown mainly in these areas, A research project is under way to determine the feasibility of beef finishing in the most economic manner. The preliminary results from this project are encouraging and suggest the possibility of moving soon into a pilot production project. The expenditure allowed for this in table 8.17 is based only on tentative requirements of finance. The actual organization of the project still requires to be determined and it is possible that a statutory board such as the Agricultural Development Corporation might well participate, perhaps along with the Animal Husbandry Division.

8.207. *Livestock Marketing.*—The Livestock Marketing Division (LMD) was set up over 15 years ago as the African Livestock Marketing Organization (ALMO) of the Veterinary Department for the purpose of purchasing cattle in the remoter areas where private cattle trading was not yet established. During the 1950s, ALMO expanded its activities and was also engaged actively in encouraging traders to move into these areas. It competed with them to buy cattle and also ran stock auctions or helped County Councils to do this. The cattle it purchased were supplied either as stores to established ranchers, or after a period of quarantine, to the Kenya Meat Commission for slaughter.

8.208. In th eearly 1960s, the organization, now the LMD, restricted its activities because individual traders as well as County Councils had become sufficiently established to take over some of its functions. During the last four years, LMD has confined its purchasing to North-Eastern Province and Isiolo, Marsabit and Lamu Districts, but it has also been more active in the development of stock routes. The Division is no longer part of the Veterinary Department but an independent unit within the Ministry of Agriculture's Department of Technical Services. During the Plan period, its cattle purchasing and stock route development activities will be continued, but with much more emphasis on the development of marketing facilities. Its operations will be related closely to the range development programme and that part of the range credit intended for livestock marketing development will provide the financial means for the extensive development of stock routes by LMD. These stock routes will form the essential links between output from the producing areas and markets and slaughtering facilities. An important component of stock route development will be holding grounds and quarantine facilities. A wider market intelligence role is also envisaged for LMD, to provide producers as well as agencies such as the Kenya Meat Commission, and the Ministry of Agriculture, information on cattle supply trends. The expenditures planned for the development of livestock marketing facilities are shown in table 8.18.

EXPENDITURE ON THE DEVELOPMENT OF STOCK ROUTES

Table 8.18 *K*£'000

Item	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Marketing facilities related to Range Devt. programme ..	130	160	150	150	145	735
Coast stock route	19	5	5	5	4	38
National stock route	7	9	12	30	35	93
TOTAL	156	174	167	185	184	866

Nearly 85 per cent of all expenditure is expected to be devoted to the development of new stock routes and holding grounds directly related to the range development programme.

8.209. The range areas have been divided into several zones for the purpose of laying out a pattern of stock routes to link specific producing areas with outlets for cattle and small stock. The zones and the provinces or districts to be included in each zone, as well as the numbers of cattle which will move down these routes are set out in table 8.19.

CATTLE MOVEMENTS DOWN STOCK ROUTES, 1968 AND 1974*

Table 8.19 *Numbers*

		1968	1974
ZONE 1	North-East Province and Isiolo, Marsabit, Lamu and Tana River Districts	45,000	81,000
ZONE 2	Turkana, West Pokot and Baringo Districts	nil	4,000
ZONE 3	Kajiado and Narok Districts	2,000	44,000
ZONE 4	Coast Province (excluding Lamu and Tana River District)	nil	5,000
ZONE 5	Nyanza and Western Province	nil	15,000
	TOTAL	47,000	149,000

*The numbers of cattle shown for the five zones do not cover all stock movements—livestock now using existing movement facilities (including road and rail as well as stock routes) outside these zones are not included.

8.210. In terms of output of cattle, the most important zone will be the North-Eastern Province and the districts immediately around it. The numbers of cattle moving out of this zone are expected to double by 1974. Some of the cattle moved out of these zones will go straight through for slaughter, but a large number will be immatures intended for delivery to other ranching enterprises for fattening prior to slaughter. Such fattening of immature stock will be an important part of the activities of the new ranching facilities to be developed within the range programme. Zones 2, 4 and 5 will consist of entirely new stock routes.

8.211. The "Coast" and "National" stock routes represent projects which were initiated some time ago. Much development has already been undertaken on the coast route, which was originally developed and run by the provincial veterinary organization in the Coast Province with the primary objective of supplying cattle to the Kenya Meat Commission's Mombasa abattoir. Small allocations of funds have also been made every year since 1956 to develop other stock routes. These are known as "national" stock routes. Where such routes are not included in areas affected by the range development programme, further development will continue with separate funds allocated for these "national" routes which are scattered in may districts.

8.212. With a large part of the finance necessary for the development of stock routes over the Plan period already agreed, and with a good deal of preliminary planning for these routes already accomplished, no serious difficulties in the way of completing the network of stocks proposed for the various zones are anticipated. However, it is important to note that a considerable amount of land acquisition will be essential for creating holding grounds. Normally, such land would have to be acquired from the County Councils. It is hoped that there will be no serious delays in making the necessary acquisitions.

8.213. The Livestock Marketing Division will continue to purchase cattle and will require adequate working capital for this purpose. However, all expenditure in this respect will be recovered from the sale of stock and the charging of fees for stock movement services provided. It is difficult to predict the actual scale of the buying operations of the LMD, as these will depend on quarantine restrictions as well as the degree to which private traders are able to take over cattle buying from the pastoral areas. Although intensified operations against cattle disease will be maintained, the risk of quarantine following outbreaks of disease will remain. As far as buying by private traders is concerned, it is hoped that, by the end of the Plan period, facilities for cattle movement will have improved to such an extent that the LMD will be able to leave this aspect of its activities largely to the private sector. This stage will require the existence of sufficient competition among the private traders. The LMD may have to continue operations in the more remote areas, although it is not unlikely that other statutory organizations such as the Agricultural Development Corporation or even the Kenya Meat Commission might participate in these activities. However, it is desirable that any purchaser of cattle undertaken by LMD in order to keep the Kenya Meat Commission supplied should not involve any losses for LMD. Small losses arising out of purchases for the KMC have been incurred in the past.

8.214. *Sheep and Goats*.—There are probably 8 to 9 million sheep and goats in the country. These sheep and goats make a valuable addition to the total supply of meat and account for about ten per cent of the meat consumed. However, a large part of this goes into subsistence consumption although unrecorded rural sales are probably quite high. The Kenya Meat Commission also slaughters sheep, lambs and goats for supplying urban areas and 59,000 were delivered to the Commission in 1967. Of the total population of sheep, 540,000 are wool sheep. These produced in 1967 a clip of 1.5 million kilos for export. Wool production has been relatively static in recent years.

8.215. The production target for sheep and goats for slaughter is shown in table 8.12. Although slaughterings have tended to be relatively stagnant in recent years, it is felt that the development of new marketing facilities in connection with the range programme will assist in enabling the movement of large numbers of sheep and goats so that an annual growth rate of just over 3 per cent is projected. No sheep and goat meat will go for export so that if more such meat is consumed domestically, larger quantities of beef for export might become available.

8.216. The target growth rate for wool production is lower, 2.6 per cent per annum. Even this will require a great deal of effort to realise and it is likely that the quality of wool produced will be lower than at present. Export prospects for wool are not very bright due to substitution by synthetic fibres. However, production can probably be increased with only relatively small expenditures. There are virtually no sheep now in the range areas and with the further development of these for cattle, some possibilities are also opened up for introducing wool sheep as an additional enterprise in suitable areas. But this will require a considerable extension effort to impart knowledge of wool sheep husbandry practices to farmers. It is also important that only breeding stock of high quality be used—indiscriminate crossing in recent years has been partly responsible for a drop in the quality of wool.

8.217. The only notable investment during the Plan period will be the building of a Sheep Institute at a cost of about K£40,000. The institute will undertake research and perform a training role. Research will also be carried out at sub-stations of the Animal Husbandry Division to study the problems of wool production in local conditions.

8.218. *Pigs.*—Less than 50,000 pigs are now being slaughtered annually. The domestic market can absorb about half the products derived from these and the rest have to be exported, mainly to Uganda, Tanzania and Zambia. The industry has been going through a difficult phase for several years and deliveries to the established factories and licenced butchers have declined gradually, although there is some evidence to suggest that unrecorded sales to small rural butchers have been rising. The basic problem affecting pig rearing is the high cost of production mainly due to the high cost of feed. This makes pig meat in any form a relatively expensive luxury compared with beef or mutton. Production costs are also too high to enable substantial exports to be built up—outside East Africa, these are sometimes made at a loss. Costs have risen particularly since 1965 when the prices of pig feed rose sharply following shortages of cereals for feed. However, cereals are now relatively cheap and are expected to remain so. Efforts are also being made to develop soya bean production and if these are successful, a relatively cheap protein, important for the production of pig feeds, will also become available.

8.219. Despite the above considerations, annual growth of only two per cent is foreseen for pig production and this will be conditional on the availability of cheap feed and the ability of the extension services to interest more farmers in big production. A relatively strong extension unit is expected to be built up with Danish assistance and it is hoped that this unit will make an important contribution towards improvement in pig husbandry. Even among existing producers, many are relatively new to pig farming and the general standard of management is low. However, the growth of pig farming among samallholders in Nyeri during the last few years has demonstrated that pig production can be successfully established among smallholders. But large scale producers will continue to account for the bulk of deliveries, particularly of the higher quality baconers.

8.220. Ninety per cent of production is delivered to the Uplands Bacon Factory which has a capacity about twice that of deliveries made to it. However, additional investment in the factory is essential to give it greater flexibility, particularly to enable more canning to be undertaken. A sum of about K£80,000 which will be necessary for this is not included in the development expenditures for livestock. It will be important also to continue enforcement of the very stringent regulations about foot and mouth disease in the areas surrounding the factory—unless these are maintained, exports will be adversely affected because of disease control regulations in importing countries. Any serious drop in the level of exports could irreparably damage the industry as the domestic market is very small and factory unit costs of production would rise sharply if it produced only for the domestic market.

8.221. *Poultry.*—It is estimated that there are about 300,000 to 350,000 exotic birds in the country and perhaps another 10 million indigenous birds, Unfortunately, the information available on poultry production is not very reliable. The domestic market to which almost all production is directed is relatively small, but there is a growing interest in poultry production with exotic birds. Urban and rural consumption is likely to grow as the prices of poultry products fall following the availability of cheaper feeds and of improvements in management capabilities. A modern hatchery has been established with the participation of the Agricultural Development Corporation to supply high quality layers and broilers to producers. It is also expected that a significant level of exports will be built up from this hatchery. Some producers have occasionally expressed the view that a single marketing organization for poultry is desirable to help even out gluts and shortages in production. However, the experience of other countries in establishing and running poultry marketing boards has not been very encouraging. In any case, the industry in Kenya is much too small to warrant any attempts at "organized marketing".

8.222. *Veterinary Services.*—Kenya has for many years had a reputation among African countries for its relatively well developed veterinary services. For the future, the importance of improved veterinary coverage and its close co-ordination with livestock production activities will be even more essential. A large part of the cost of expansion of veterinary services will involve enlargement of its establishment and provision for expenditures to make this establishment more effective, i.e. greater recurrent costs. However, some substantial projects will also be financed from the development budget. These are set out in Table 8.20.

DEVELOPMENT EXPENDITURE ON VETERINARY SERVICES

Table 8.20 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Rinderpest control (including construction of crushes) ..	59	60	55	56	60	290
Foot and mouth vaccination ..	2	3	3	3	3	14
Assistance to Harambee dips ..	16	32	32	30	30	140
Ancillary tech. services for range areas	39	35	33	30	30	167
Veterinary Clinical centres ..	—	17	34	61	85	198
Veterinary housing	40	50	60	70	80	300
Veterinary education	—	16	13	10	10	49
TOTAL	156	213	230	260	299	1,158

8.223. The Veterinary Department has already had remarkable success in the control of rinderpest. However, more intensive control work is to be pursued. It is intended to vaccinate all cattle in certain areas once a year for several years. The expenditure shown in Table 8.20 includes an amount for the building of crushes to replace those previously built but which have been destroyed and also to construct new ones. Most of the rest of the expenditure will be devoted to the purchase and running of vehicles and buying vaccine.

8.224. For some years self-help groups have undertaken extensive building of dips. It is felt that this voluntary effort requires some assistance for the impetus to be maintained. Financial help is required to purchase construction materials as well as the necessary chemicals for use in the dips. Relatively easy access to cattle dips will make an important contribution to a reduction in the mortality of grade dairy cattle in particular. The development of veterinary clinical centres will promote faster provision of veterinary advice. In many areas, no adequate facilities existed for elementary analysis which is essential for diagnostic purposes. The clinical centres are expected to provide such facilities and will also include an office and store. About 70 are expected to be built during the Plan period. As with other departments undertaking field activities, considerable difficulty has been experienced in the housing of veterinary field staff and a substantial effort to improve housing is planned. Reference has already been made to the ancillary technical services to be provided by the Veterinary Department for activities associated with the range development programme.

CO-OPERATIVES

Introduction

8.225. At the end of 1968, there were about 900 registered and active co-operative societies. The majority, over 700, were primarily agricultural societies. About 130 of these were producer co-operative societies which had purchased large-scale farms in the former Scheduled Areas. But apart from these, most of the agricultural societies were involved primarily in selling, and perhaps processing, their members' produce, especially coffee, pyrethrum and dairy produce. Some of the societies also performed other services for their members, including the supply of farm requisities, such as fertilizers and sprays, the provision of short-term credit, and, specially in the case of societies on settlement schemes, the provision of cattle dipping facilities and a tractor hire service. In addition to the agricultural societies there were about 150 non-agricultural co-operatives. Most of these were either consumer societies or credit and savings co-operatives in the urban areas, although a few societies were involved in a wide range of other activities, including housing, craftsmen's and fishermen's co-operatives.

8.226. Within the co-operative movement, as in any other field of business activity, there has been considerable variability between the performances of individual organizations. However, while some co-operatives have been efficiently managed, too often the reverse has been the case. There have been numerous cases of fraud and dishonesty or favouritism to committee members. Due to poor management, many of the marketing societies have been paying out to their members too low a proportion of the proceeds realised from products sold. Just as important, inefficient societies have not been able to perform certain valuable services, such as the supply of credit, for their members. Probably the most important factors contributing to the inefficient management of societies have been the lack of understanding of business principles on the part of co-operative committee members and staff and the inability or unwillingness of societies to hire experienced staff at competitive salaries. The standard of book-keeping has been especially poor, yet a well kept set of records and accounts should be one of the most valuable aids to efficient management. Partly because inadequate records have been kept by many of the societies it has been difficult for the Department of Co-operative Development to audit the societies' accounts. A shortage of audit staff within the Department has aggravated this situation. For these reasons, a large number of societies had their audits substantially in arrears. At the end of 1968 only about one third of the societies were up to date with their audits, another third had only had their accounts audited up to 1966 while the remaining third were either several years in arrears or had never had their accounts audited. The lack of good records and accounts also made it difficult for the staff of the Department of Co-operative Development to assist many societies to improve efficiency, for co-operative staff must base much of their advice on their interpretation of the societies' records and accounts. Other factors have also made it difficult for the Department of Co-operative Development to provide adequate field services to the co-operative societies. Especially important have been shortages of money for meeting the travelling expenses of staff and difficulties experienced by the Department in recruiting staff of a suitable calibre.

8.227. Co-operatives have an extremely important role to play, especially in the small-scale farming areas, and the Government intends to intensify its efforts to encourage the healthy development of the co-operative movement. However, given the many problems experienced by co-operatives, emphasis, at least during the early part of the Plan period, will be given to measures designed to improve the efficiency of existing co-operatives rather than to expanding rapidly the number of societies. Several measures aimed at improving efficiency have already been taken and others will be implemented during the Plan period. These are discussed below.

The New Co-operative Act

8.228. In December 1966, a new Co-operative Act was brought into effect. This Act gives the Commissioner for Co-operative Development considerably increased regulatory powers over co-operative societies. For instance, the Commissioner can insist that all cheques written by a society are countersigned by a Co-operative Officer. The Department can thus ensure that societies' funds are not used for purposes which are not in the members' best interest. The Commissioner can also insist that small mono-crop or single purpose societies are amalgamated into sufficiently large viable multi-purpose units, perhaps affiliated to a co-operative union. In this way he can ensure that each society is sufficiently large to be able to justify employing the staff necessary to perform its basic functions effectively, while certain services, such as the provision of transport or bulk buying and selling, can be performed by the co-operative union. Where the committee of a society is not performing its duties effectively, the Commissioner can also replace it, initially for a period of one year, with a committee of his own choice. These measures are not designed to be applied indiscriminately to all societies. Rather, when a society is organized inefficiently the Commissioner can and does step in to try to improve matters.

Training Programmes for the Co-operative Movement

8.229. Many of the problems experienced by co-operative societies stem from a shortage of skilled manpower at all levels in the co-operative movement. In order to alleviate this problem a new co-operative college is being established and other training programmes expanded. In May 1967, the Co-operative College of Kenya was opened in temporary accommodation in Nairobi. This temporary college has room for about 35 students at any one time. Most of the students are secretaries or book-keepers of societies who take courses lasting about eight weeks in administration, book-keeping and management. These courses are run at several different levels and students may return to take a higher level course after they have completed a more elementary course. Much shorter courses for co-operative societies' committee members are also given. During 1968 about 300 students attended the co-operative college. It is expected that construction of a new co-operative college will start shortly. This new college will have capacity for about 100 students, or roughly three times the capacity of the present temporary college. The new college is expected to cost about K£350,000. Eighty per cent of the capital cost will be met from a grant which the Nordic Governments have agreed to provide, while the balance will be paid by the Government. When this new college is completed, far better facilities for training staff of co-operative societies will be available and this should lead to the much more widespread adoption of efficient business methods by co-operative societies. In addition to the training programmes given at the Co-operative College, co-operative training is also provided at the Kenya Institute of Administration (KIA) and at Farmers' Training Centres. The courses at the KIA have been designed to provide training to staff of the Department of Co-operative Development. It is expected that this aspect of co-operative training will be transferred to the new co-operative college when this is established.

8.230. With the completion of the Co-operative College and the consolidation of co-operative education, it will be possible to improve the quality of teaching and to relate the content of the instruction to the needs of the co-operative movement. New measures will include the improvement of lines of communications between the College, the Department of Co-operative Development, and the District Co-operative Unions; the transfer of the co-operative education staff of Provincial Training Centres to the personnel establishment of the College; the standardization of the co-operative education syllabus and textbooks at the centres; and the appointment of Education Secretaries at District Unions to encourage membership.

8.231. The number of courses to be offered in the Provincial Training Centres will be increased, as will the number of students to be trained. Some changes will, however, be introduced in the way in which the centres will be administered. Until now, a number of different specialized training institutions have been established at the district level, especially at Farmers Training Centres and District Training Centres. But it is felt that the facilities available could be better used if the different training programmes, including co-operative training, were all centralized in one multi-purpose District Development Centre. This approach will be tried in two districts early in the new Plan period and, if successful, will be extended to other districts. It is the intention that one of the District Development Centres in each Province will cater for the co-operative training needs of that province.

8.232. It is recognized that it will be important to give a degree of autonomy to the Co-operative College in the running of its day-to-day affairs, and to involve the co-operative movement more in the affairs of the College. For this reason, it is intended, early in the Plan period, to explore ways and means of establishing a National Co-operative Education Institute based at the College whose functions will be, among other things, to advise the Minister for Co-operatives and Social Services on all matters related to co-operative education and training, and to co-ordinate in conjunction with the college authorities, all extra-mural aspects of training and member education. The movement will be represented on the Board of Governors of the Institute, and this will give it a say in the affairs of co-operative education. As a corollary to the granting of a degree of autonomy to the Co-operative College and the more active participation of the co-operative movement in its day to day operation, the co-operative movement will be expected to make an increasing contribution to the recurrent costs of the College. In the short run, it will be impossible for the movement to finance a significant proportion of costs but in the long run, most, if not all ,are expected to be met by the movement.

Overseas Assistance to the Co-operative Movement

8.233. The co-operative movement in Kenya has received assistance from several overseas countries, especially the Nordic countries (Denmark, Finland, Norway and Sweden). The Nordic Co-operative Project was started in 1966 and the present agreement will terminate in 1972, although the Kenya Government hopes that the project will be extended beyond 1972. Apart from financial assistance towards the cost of the new Co-operative College, the project involves the Nordic countries in supplying about 50 co-operative advisers to the Department of Co-operative Development. These advisers work in a wide variety of positions throughout the co-operative movement. Most of the advisers are involved in giving on the job training in better methods of book-keeping and administration, including the administration of credit. Some of them help to run courses for co-operative staff both at Farmers' Training Centres and at the Co-operative College, while a few work in the headquarters of the Department of Co-operative Development. A joint Kenya Government/Nordic Board appraisal team has evaluated the performance of the Nordic Project for Co-operative Assistance to Kenya and recommended a number of changes to make the project more effective. The implementation of these recommendations is expected to improve both the effectiveness of the Department of Co-operative Development and the co-operative movement in Kenya as a whole.

The Co-operative Bank and Co-operative Credit

8.234. On January 1st 1968, the new Co-operative Bank of Kenya started business when it opened an office in Nairobi. Apart from operating current accounts and accepting deposits from member societies (the bank does not operate accounts for individuals), the bank can make advances to co-operative societies. This means that the bank can help societies to obtain credit for their own needs and also assist them to extend credit facilities to their members. If the Co-operative Bank is to issue loans to co-operative societies in an effort to increase the availability of agricultural credit to society members, it is essential that the societies receiving loans are well administered. In the past some co-operative societies have issued credit to their members from their own resources, although not many societies have been able to do this and those that have done so have not always supervised the credit well. At the end of 1968 it was estimated that about K£1.3 million was owed to societies by their members. Much of this had been outstanding for a long period and many of the loans had been issued without specific conditions concerning repayment periods and interest rates, etc., being specified. The Commissioner for Co-operative Development has now instructed the societies to make vigorous efforts to recover the money outstanding and make sure that new loans are issued to members only under well defined conditions which state clearly the terms of repayment, etc. Following investigations completed recently, it appears that about 120 societies are sufficiently well managed to permit the Co-operative Bank to consider issuing them with loans without undue risk. Initially, the Bank will concentrate on these societies, although as more societies improve management efficiency the number of societies qualifying for Co-operative Bank loans will increase. Several conditions will have to be fulfilled before societies can qualify for loans; among other things, they will have to have their accounts audited up to date and be recommended for loans by a Co-operative Officer. This co-operative credit scheme could prove to be a major development in the field of short-term credit for small-scale farmers. The AFC has experienced serious problems in trying to administer short-term credit for small-scale farmers, in part because of the high administrative costs and high risks involved. While the commercial banks have issued some short-term credit to small-scale farmers, it is unlikely that they will be able to substantially expand operations in this field, again because of the high administrative costs of issuing small loans for short periods. However, if there were a well organized system of co-operative marketing most of the administrative structure necessary for a short-term agricultural credit scheme would exist. The farmers would have accounts through which credit could be issued and repayments collected automatically when farm produce was sold, and the Co-operative Bank could issue relatively large loans to the societies rather than to individual members and thus keep administrative costs to a reasonable level.

8.235. During the first year or so of this new co-operative credit scheme, funds will be available only from within the co-operative movement. If the scheme works well the Government is prepared to consider placing some funds on deposit with the Co-operative Bank, so that the Bank can increase the availability of credit to societies. A notional allocation of K£425,000 of development funds has been set aside for this purpose over the plan period. However, before this can be considered, the co-operatives will be required to demonstrate that they can use their own funds effectively. This means that, in the first few years of this scheme, small scale farmers in Kenya will be able to obtain short-term credit from co-operative societies only if they are members of the 120 societies which are sufficiently well run to qualify for Co-operative Bank loans. It is hoped that as more and more co-operatives improve management efficiency the scheme will be extended to most other societies. If this can be done, it will mean that a high proportion of small scale farmers will be able to obtain short-term credit from co-operative societies.

Improving the Services Provided by the Department of Co-operative Development

8.236. If the co-operativ emovement is to increase efficiency, it is important that the services provided by the Department of Co-operative Development continue to improve. The expanded training programmes for departmental staff should lead to a steady improvement in the Department's efficiency. The Government also intends to help the Department of Co-operative Development to recruit staff of a higher calibre through permitting it to up-grade the salary scales for certain categories of Co-operative Officers. Measures designed to attract more audit staff will also be taken. The efficiency of the field services provided by the Department's staff has also been impaired by a shortage of travelling funds, and the Government intends to increase the amount of money provided to the Department for this purpose. To some extent, the Department of Co-operative Development has incurred the sort of problems referred to because planning within the Department has not been too effective, and the Government has not been made sufficiently well aware of the problems being experienced by the Department. In order to improve the planning process within the Department, it has been agreed that one senior member of the Department's staff will be assigned to planning duties.

Land Adjudication Programme by Districts

A. Agricultural Areas

Appendix Table 8.1 — Thousand Hectares

District	Total Area Registered at 30.6.69	Area to be Registered During the Plan Period						Total Area Registered at 30.6.74
		1969/70	1970/71	1971/72	1972/73	1973/74	Total	
Bungoma	123	42	23	—	—	—	65	188
Busia	67	42	50	—	—	—	92	159
Kakamega	149	39	40	30	—	—	109	258
Kisumu	5	25	28	32	40	22	147	152
Siaya	28	26	36	49	40	16	167	195
South Nyanza ..	55	42	49	49	61	42	243	298
Kisii	125	30	28	—	—	—	58	183
Kericho	59	44	57	13	—	—	114	173
Nandi	51	32	36	45	15	—	128	179
Elgeyo/Marakwet ..	34	23	20	16	8	—	67	101
Baringo	56	17	24	24	22	—	87	143
Muranga	149	5	—	—	—	—	5	154
Kirinyaga	79	3	8	8	8	—	27	106
Meru	96	41	61	61	32	11	206	302
Machakos	40	37	45	53	61	103	299	339
Kajiado	46	—	—	—	—	—	—	46
Narok	—	—	—	32	32	61	125	125
Taita	7	3	8	8	8	9	36	43
Kwale	—	10	20	28	45	34	137	137
Embu	51	—	—	—	—	—	—	51
Kitui	—	—	4	32	40	40	116	116
Kilifi	—	—	8	24	42	51	125	125
Tana River	—	—	—	—	8	18	26	26
Lamu	—	—	—	—	—	10	10	10
Samburu	—	—	—	2	10	32	44	44
West Pokot	—	—	3	18	38	61	120	120
Kiambu	96	—	—	—	—	—	—	96
Nyeri	80	—	—	—	—	—	—	80
Grand Total ..	1,396	461	548	524	510	510	2,553	3,949

B. Range Areas

Thousand Hectares

District	Total Area Registered at 30.6.69	Area to be Registered During the Plan Period						Total Area Registered at 30.6.74
		1969/70	1970/71	1971/72	1972/73	1973/74	Total	
Kajiado	222	426	405	445	445	202	1,923	2,145
Narok	—	335	405	445	445	304	1,934	1,934
Kitui	—	—	—	—	—	81	81	81
Embu	—	—	—	8	38	53	93	93
Meru	—	—	—	—	28	40	68	68
Machakos	—	—	—	—	—	40	40	40
Baringo	—	—	—	77	81	61	219	219
South Nyanza ..	—	—	—	—	61	81	142	142
Taita	—	—	—	—	28	32	60	60
Kwale	—	—	—	—	40	61	101	101
Kilifi	—	—	—	—	—	40	40	40
Samburu	—	—	—	—	—	81	81	81
West Pokot	—	—	—	—	—	101	101	101
Grand Total ..	222	761	810	975	1,160	1,117	4,883	5,105

CHAPTER 9—FORESTS, FISHERIES, AND MINES AND GEOLOGY

Forests

In 1968, the nation's forests contributed K£6 million directly to gross domestic product and by 1974 it is estimated that their direct contribution will rise to K£8.5 million. Industries which do or will depend on forest resources for raw materials such as sawmills, furniture and fixtures, and the proposed paper and pulp industry, contributed approximately K£3 million to GDP in 1968 and projections indicate that in 1974 the contribution of these industries will rise to approximately K£8 million. In addition, forests are an important and valuable asset with respect to the preservation of water catchment areas, control of soil erosion and preservation of animal life.

9.2. The total area of the national forest reserves is about 1.7 million hectares which is about 3 per cent of the total area of the country. Of this, 1.6 million hectares comprise natural forests, bush bamboo and grassland, while the balance consists of planted forests. These forests resources are estimated to offer a harvesting potential of 500,000 cubic metres of timber per annum, of which 110,000 and 390,000 cubic metres are the estimated optimum levels of harvesting from indigenous and planted forests, respectively.

9.3. Estimates of the future demand for timber, and pulp and paper products indicate that the country needs by 1980 to have planted soft wood forests for timber covering an area of approximately 140,000 hectares and 20,000 hectares of pulp wood forests. Over the period 1969-74 36,600 hectares will be planted and as the level of annual clear felling during the Plan period is estimated to be about 1,300 hectares, the net annual additions to planted forests will amount to about 6,000 hectares. Thus, the area under planted forests at the end of the Plan period will be about 132,000 hectares.

AREA UNDER PLANTED FOREST, 1969 AND 1974

Table 9.1 *Hectares*

Forest Division	Area under Forest as at 31-12-68	Planting Targets 1969-74	Area of Forest clear felled 1969-74	Area under Forests as at 31-12-74
Nyeri	12,400	2,600	1,000	14,000
Nairobi	13,300	2,900	1,100	15,100
Coast	900	300	100	1,100
Southern	5,400	600	400	5,600
Londiani	19,500	5,600	1,400	23,700
Elburgon	14,100	3,300	1,100	16,300
T. Falls	12,300	4,200	1,000	15,500
Kitale	5,500	1,800	400	6,900
Eldoret and Turbo	16,300	13,200	1,200	28,300
Kisumu	3,400	2,100	200	5,300
TOTAL	103,100	36,600	7,900	131,800

9.4. A geographical distribution of planted forests, the new forests to be established during 1969-74 and the area of planted forests to be harvested during the period are given in Table 9.1. Forest plantations are now found generally in the relatively high potential agricultural areas where the climate is suitable for fast growth. The planting programme during the Development Plan period will also be undertaken in these areas for the development of forest plantations in these particular areas at the moment seems necessary if the supply of timber and logs for the pulp and paper industry, is to keep pace with both internal and export demand. However, it is proposed to step up research on the development of forest resources on marginal lands, with the aim of increasing the area under forests on land less important for future agricultural development.

9.5. It is of particular importance that coastal areas should have a sizable share of forest plantations. The development of forest resources at the coast would make the export of forest products a viable undertaking due to the relatively lower costs of transport. To achieve this objective, research on the species of trees that can thrive in marginal areas will be intensified. This research has already been initiated through technical assistance from Norway. High quality seeds are currently being obtained from abroad, particularly from Central and South America which are to be used for an experimental nursery and other planting. However, this research must for the moment be regarded as inconclusive and only a very modest beginning—40 hectares per annum—is to be made in the tree planting effort at the coast during this Plan. Government development expenditure of K£17,300 has been earmarked for this project.

9.6. Many of the new forest plantations will, during the Plan period, be established in the western areas of the country, which at present account for the greater part of forest plantations. Approximately 13,200 hectares will be planted in the Eldoret and Turbo areas, of which 6,200 hectares will be for pulpwood forests and 7,000 hectares will be for timber plantations, Londiani, Thomson's Falls, Elburgon and Kitale divisions will respectively, have 5,600 4,200, 3,300, 1,800 hectares of new forest plantations. In the east of the Rift Valley, the Nairobi, Nyeri and southern forest divisions will have new plantations covering 2,900, 2,600 and 600 hectares, respectively.

Investment Expenditure

9.7. As indicated in the previous Development Plan, expenditure on the maintenance of forest plantations, as well as outlays in the establishment of the plantations, are all considered as development expenditure. An aggregate outlay of K£5.9 million will be spent on both forest plantation establishment and maintenance as well as on the Forest Industrial Training Centre, a pulpwood afforestation scheme at Turbo, local afforestation schemes and extraction roads. The largest component of expenditure will be accounted for by recurrent expenditures in the maintenance of forests which will amount to K£2.23 million. Other major heads of expenditure will be: the Turbo pulp-wood afforestation scheme which will provide raw material for the proposed paper and pulp mill at Broderick Falls, K£880,000; expenditure on staff housing, offices, water supply, roads, vehicles and equipment, K£779,000; local afforestation schemes, K£592,000, extraction roads K£860,000 and the Forest Industrial Training Centre, K£414,000. Table 9.2 provides a detailed breakdown of these expenditures into various sub-heads and also shows the expenditures by financial years. JBRD

DEVELOPMENT EXPENDITURE—FORESTRY

Table 9.2 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
PLANTATION DEVELOPMENT—RECURRENT	406	426	446	466	486	2,230
FOREST DEVELOPMENT—NON-RECURRENT						
Staff Housing	53	73	105	133	168	532
Offices, Stores and Ancillary Buildings	8	9	10	11	13	51
Water Supplies	5	6	7	7	8	33
Roads	9	10	11	12	13	55
Additional Vehicles and equipment..	18	20	22	24	24	108
TOTAL FOREST DEVELOPMENT—NON-RECURRENT	93	118	155	187	226	779
Local Afforestation Schemes—Recurrent	87	90	94	98	102	471
Works and Buildings	16	18	19	21	22	96
Additional Vehicles and equipment	4	5	5	5	6	25
TOTAL LOCAL AFFORESTATION SCHEMES—NON-RECURRENT	20	23	24	26	28	121
LOGGING UNITS						
Vehicles and Equipment ..	—	5	5	5	—	15
Operation Costs	11	13	13	13	13	63
TOTAL LOGGING UNITS ..	11	18	18	18	13	78
FOREST INDUSTRIAL TRAINING CENTRE						
Works and Buildings.. ..	1	4	4	4	—	13
Vehicles and Equipment ..	15	18	7	8	8	56
Operating Costs	68	73	68	68	68	345
TOTAL FOREST INDUSTRIAL TRAINING CENTRE ..	84	95	79	80	76	414

Table 9.2 (*Contd.*)

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
MISCELLANEOUS PROJECTS						
Forest Inventory	6	—	—	—	—	6
Forest Training School Improvements	7	—	—	—	—	7
TOTAL MISCELLANEOUS PROJECTS	13	—	—	—	—	13
MASAI FOREST DEVELOPMENT ..	10	10	10	10	10	50
TURBO AFFORESTATION SCHEME						
Purchase of Land	79	—	—	—	—	79
Payments to E.A.T.E.C. for Agricultural Vehicles, Equipment and Buildings ..	31	126	66	67	23	313
Payment to E.A.T.E.C. Working Capital	8	17	—	—	—	25
Afforestation Works and Buildings	6	10	11	14	6	47
Afforestation Vehicles and Equipment	4	11	4	2	1	22
Afforestation–Operation Costs	56	83	84	85	86	394
TOTAL TURBO AFFORESTATION SCHEME	184	247	165	168	116	880
EXTRACTION ROADS						
Works and Buildings.. ..	2	3	3	4	4	16
Vehicles and Equipment ..	15	6	50	50	40	161
Operation Costs	133	130	135	140	145	683
TOTAL EXTRACTION ROADS	150	139	188	194	189	860
COAST FORESTRY DEVELOPMENT	4	5	6	7	8	30
MARKET AND FEASIBILITY STUDIES	1	1	1	1	1	5
GRAND TOTAL ..	1,063	1,172	1,186	1,255	1,255	5,931

Employment and Manpower Training

9.8. The forestry industry in 1968 offered 20,300 persons full time direct employment. A much larger number of people made a living through the cultivation of forest lands and through casual employment offered by the Forest Department. Projections made for the Plan period indicate that, by 1974, this industry will be offering full time employment to 30,000 people, with 17,000 of them being employed in the public sector, and 13,000 in the private sector. These figures exclude projections of employment in forest industries which are included in the industrial sector estimates.

WAGE EMPLOYMENT IN FORESTRY, 1968–74

Table 9.3 *'000s*

	Recorded 1968	Projected 1974
Public Sector	11·5	17·0
Private Sector	8·8	13·0
TOTAL	20·3	30·0

The Forest Department's established posts in 1968/69 were 1,365. This establishment comprised 109 foresters, 35 other professional officers, 170 forest rangers; 116 clerical officers, 910 forest guards and 25 subordinate staff. Although all the established posts for sub-professional, clerical and subordinate staff are currently filled, a substantial number of professional posts remain unfilled.

9.9. It is proposed to increase the establishment of foresters by 11, forest rangers by 20, forest guards by 100, clerical staff by 20 and other employees by 50 during the Plan period. There are currently 22 Kenya citizens studying forestry in universities overseas and the present shortage of forest officers will be alleviated when these students return and take up appointments. To meet the country's demand for sub-professional staff, training facilities have since 1962 been offered at Egerton College, leading to a diploma in forestry, and in recent years, there has been an output of about 20 sub-professionals each year. As the shortage of these officers is now being eliminated, the foresters' training course at Egerton College has been discontinued but the Forestry Training School at Londiani will continue to train both forest rangers and foresters. The number of students to be admitted for training will depend upon the number of openings available to graduates of the institution.

9.10. The Forest Industrial Training Centre in Nakuru is expected to play a major role in training future saw millers. Training will be offered in logging, saw doctoring, mill writing, and in mechanical and sawmill management. The trainees will be sent to the Centre by the sawmills and will be trained free of charge with maintenance costs being borne by the sawmills which sponsor the students.

Timber Production

9.11. It is estimated that the current annual harvest of timber amounts to approximately 336,000 cubic metres per annum. Table 9.4 below shows the sales of timber from Government forests which account for the greater part of timber supplies. Most of the raw timber sales are for sawmilling purposes and to determine the volume of sawn-timber produced from raw timber a conversion factor of 35 per cent should be applied to the timber sales figures. The fall in the sales of firewood and logs that can be observed in Table 9.4 is a result of the substitution of oil for fuel wood.

9.12. The sales of logs to saw millers are made in accordance with royalty rates which vary according to the species of trees. The royalties range from Sh. 68.00 per cubic metre for the best species of hard woods to Sh. 6.50 per cubic metre for the least expensive of the soft woods. The royalties for planted soft woods will be raised at the rate of 10 per cent per annum during the Development Plan period, until they attain the levels of Sh. 17.50 per cubic metre for 15 year old thinnings, Sh. 22.80 per cubic metre for 22 year old thinnings and Sh. 26.30 per cubic metre for clear fells. The royalties for non-plantation timber are based on the average selling price of sawn timber. The royalty revenue received from forests falls short of Government outlays made in the sector, and although it is appreciated that a considerable amount of indirect income is generated in the economy by forest resources, the Government will endeavour in future to make the forest industry commercially viable, with royalty revenue covering both the capital investment and maintenance expenditures on forest plantations. The proposed raising of royalty rates is intended to achieve this objective.

SALES FROM GOVERNMENT FORESTS OF TIMBER, FIREWOOD AND POLES, 1963–1974

Table 9.4 — '000 *Cubic metres*

	1963	1967	1974 Forecast
Soft Woods	118·8	215·3	419·4
Hard Woods	13·9	16·4	31·9
SUB-TOTAL	132·7	231·7	451·3
Firewood and poles (stacked)	164·3	149·7	112·0

ROYALTY REVENUE FROM SALES OF TIMBER, FIREWOOD AND POLES FROM GOVERNMENT FORESTS

Table 9.5 — K£'000

ITEM	1963/64	1967/68	1973/74 Estimated
Timber	114	153	302
Fuel wood and poles stacked	24	26	50
TOTAL	138	179	352

Development of Forest Industries

9.13. It is estimated that the present forest resources are able to sustain a harvesting rate of approximately 500,000 cubic metres of timber: the present harvesting level of about 336,000 cubic metres falls below this optimum level. One deterrent to the development of new forest industries has been a relative lag in the development of production techniques. To eliminate this handicap, it has been decided to initiate a comprehensive utilization research programme. The research will cover such areas as pine seasoning trials, mechanical pulp testing of cypress and mechanical strength tests.

9.14. The objective of the seasoning trials which will be carried out at the Forest Industrial Training Centre at Nakuru will be to establish standard methods of seasoning pines so as to avoid variations in qualities. In other countries pine is a very important structural timber but in this country there has been twisting and bowing of the timber. This has particularly applied to pines in the rapid growth areas, where fast growth makes the timber from young trees unstable.

9.15. Dip diffusion trials will be carried out at the Ministry of Works laboratory timber testing unit in Nairobi. Trials using that method will be carried out to establish the timber species that can absorb preservatives more easily and the right quantities of preservatives each specie can absorb. An improvement in the durability of timber through the use of preservatives will be achieved through these tests.

9.16. Whereas chemical pulp tests for cypress and pines have been carried out and have proved that the Kenya cypress and pines are suitable material for pulp manufacture, mechanical pulp tests for these species have not been carried out, and it is planned that these tests will be undertaken during the Plan period. Mechanical strength data for many of the country's timber species are not yet available. It is intended that such tests should be carried out for as many species as possible, starting with pines.

Sawmilling

9.17. As at June 30, 1969, there were 43 sawmills licensed to operate in the forest reserves. In addition to these, there are sawmills which operate in private and local authority forests for which it is planned to carry out a census to determine their number, capacities and output. The licensed sawmills have a capacity to process 300,000 cubic metres of timber from plantation softwood forests and 80,000 cubic metres of indigenous timber. As the established output capacity of these mills is less than the estimated optimum level of 500,000 cubic metres, it is planned to raise this capacity by encouraging greater output from existing sawmills and by the installation of new sawmills. To achieve these objectives, financial assistance will be made available through the Industrial and Commercial Development Corporation (ICDC) in the form of loans to prospective investors. A management service has also been established by the ICDC to assist the sawmillers in operating their plants on modern commercial lines. Assistance will also be made available to sawmillers by the Forest Department's Industrial Development Section, whose Extension Service Division will provide technical assistance to sawmillers. Technical assistance is being made available by the Canadian Government which has sent to Kenya a sawmill adviser to assist the extension service to sawmills. The Forest Industrial Training Centre at Nakuru which offers training facilities to sawmill operators will also contribute to the development of the industry.

Plywood mills

9.18. There are currently two plywood mills which have an output capacity of over one million square metres per annum, compared with an estimated annual national consumption of plywood of some 840,000 square metres. During the Plan, a third mill which will be export oriented will be established in the Mt. Elgon forests. The firm proposing to undertake this project is already a supplier of plywood products to foreign markets and approximately half of its output will be for these markets. Further, the local market for plywood is expected to expand rapidly with the proposed diversification of the variety of plywoods to be manufactured.

Fibreboard Mill

9.19. A preliminary study by the ECA/FAO has indicated that a viable fibreboard mill can be established in Kenya. It is estimated that the local market can support a mill producing 45 tons per day of hard and soft board. A further feasibility study will be carried out by the ECA/FAO on the establishment of a mill. As export possibilities to other countries are limited the viability of the mill will be assessed on the basis of the local market.

Prefabricated Houses

9.20. A factory producing prefabricated wooden houses was established at Eldoret in 1965 but was moved to Nakuru in 1966. The plant has a capacity to produce 400 houses per annum. It is envisaged, that this industry will expand rapidly during the Plan period, as demand for relatively cheap prefabricated wooden houses is increasing. The plant has developed houses whose sizes range between 28 and 82 square metres, with prices ranging from K£65 to K£500 ex-factory at Nakuru. The Forest Department intends to carry out studies into the demand for low cost prefabricated wooden houses, improved designs, marketability of the present prefabricated houses, and the methods of helping sawmillers to sett up plants to manufacture houses using methods similar to those evolved by the Forest Industrial Training Centre.

Paper and Pulp Mill

9.21. Negotiations are now in an advanced stage to establish a paper and pulp mill at Broderick Falls during the Plan period. An aggregate capital expenditure of K£12.5 million will be incurred in implementing the project which will provide a great fillip to economic activity in western Kenya. The factory is expected to commence production in 1974 and will have a capacity to produce 45,000 tons of paper and pulp per annum. It will supply most of the internal requirements of paper and have some surplus pulp for export. The mill will, in the initial years, require timber raw material harvested from 1,200 hectares every year and forests within a radius of up to 100 miles of the mill will supply its requirements. Pulpwood forests are being established in the same area to provide the future log requirements of the mill.

FISHERIES

9.22. Although fishing development programmes in the past have led to a steady rise in the amount of fish landed annually, some major sources of fish supply, such as Lake Rudolf, coastal inshore fisheries, and deep-sea fisheries, still remain largely undeveloped. Apart from the fact that fish is a natural resource which, like the other resources of the country, should be exploited to an optimum level, it is a rich natural source of animal proteins which should be used for improving the dietary standards of the population, while fish exports have substantial potential. Fishing also provides a recreational sport for both the resident population and tourists.

9.23. Development programmes have been formulated that will lead to an increase of fish landed from 30,000 tons in 1968 to 55,000 tons in 1974 and as shown in Table 9.6, the value of fish landed will rise from about K£1.5 million in 1968 to K£2.4 million in 1974. To achieve these targets, measures will be introduced to raise production, to improve marketing, to raise internal fish consumption and to promote exports. It is also planned to increase fishing activity in under-fished inland and coastal fisheries, to improve fishing methods by promoting the use of better boats and fishing gear, and to improve the availability to fishermen of the funds they require to establish and operate their businesses.

Table 9.6

PROJECTED INCREASE IN VALUES OF FISH LANDED

Fishery	Value in K£'000		Per cent Increase
	1968	1974	
Coast	377	668	77
Lake Victoria	929	1,394	50
Lake Baringo	18	34	89
Lake Rudolf	25	99	296
Lake Naivasha	43	67	56
Other Lakes	42	42	—
Rivers	84	84	—
Ponds	13	23	77
TOTAL	1,531	2,411	57

Fish Consumption

9.24. The development of fisheries will depend to a large extent on the development of an internal market for fish. Only about a half of the population of the country, mainly people living or originating from the coastal and Lake Victoria areas have traditionally had fish as part of their diets. The domestic market for fish would be greatly increased if the populations of Rift Valley, Central and Eastern Provinces consumed more fish than they do at present. The present national average which is about 3.5 kilograms per annum per person, is lower than the *per capital* fish consumption of other East African countries.

9.25. An intensive campaign to promote the eating of fish will be carried out in areas where traditionally fish has not comprised part of the diet of the people. The Fisheries Department, in conjunction with the Home Economics Department of the Ministry of Agriculture and the Ministry of Health, will establish demonstration teams that will promote fish consumption in these areas. Improvements in the incomes of the people during the Plan and the lowering of the relative selling prices of fish should further promote fish consumption. Increases in fish landings should enable the retail prices of fish to fall relative to meat and other sources of proteins without adversely affecting the incomes of fishermen.

Marketing

9.26. Problems arise in the marketing of fish mainly from the relatively less developed state of road and other forms of transportation between the various fish landing beaches and markets, and the inadequacy of fish preservation facilities at fish landing sites and in wholesale and retail markets. Fish perish quickly and can only be consumed in fresh form if they can be delivered to markets promptly or if kept under refrigeration. Cold stores, and ice plants that are needed to preserve fish and have it delivered fresh to distant markets entail substantial capital investments and, on account of this, have not been installed in most fish producing and consuming areas. On account of the large capital outlays that would be entailed in marketing frozen fish, the bulk of trade in fish will be in fish preserved by simple cheap techniques such as drying, smoking and salting. The Fisheries Department, through its extension services will place emphasis on teaching fishermen better techniques of preserving fish. Programmes were initiated during the last Plan to develop networks of roads connecting fish landing beaches to fish wholesale and retail markets: further progress will be made in developing these during the Plan, while new programmes will also include the marketing of each fishery's output.

Public Sector Investment

9.27. Development expenditure by the public sector in fisheries will amount to approximately K£1.4 million. Table 9.7 below provides a breakdown of this expenditure by projects, and Table 9.8 provides a distribution of the expenditure under the various heads. Deap sea fishing will account for most of the development expenditure but inshore fisheries, Lake Victoria and Lake Rudolf are other projects that will account for sizable expenditures.

DEVELOPMENT EXPENDITURE BY PROJECTS

Table 9.7 K£'000

Project	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Sport Fishing	3	5	3	5	7	23
Lake Rudolf Fishery	16	14	5	6	5	46
Fishpond Development ..	8	11	11	11	6	47
Lake Baringo	2	4	6	4	3	19
Lake Victoria	26	10	23	6	12	77
Deep Sea Fishing	230	180	100	100	200	810
Inshore Fisheries	11	44	30	117	22	224
Other Inland Projects	2	2	2	2	2	10
Fisheries Training School ..	—	20	20	10	—	50
Fishermen's Loan Programme..	10	10	10	10	10	50
TOTAL	308	300	210	271	267	1,356

DEVELOPMENT EXPENDITURE FISHERIES

Table 9.8 K£'000

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Fishing Boats	15	30	36	19	16	116
Tuna Fishing Vessel	—	—	100	100	200	400
Vehicles	5	5	3	3	7	23
Housing	8	11	10	8	4	41
Office Buildings	2	6	8	5	4	25
Stores	6	22	5	5	1	39
Fish Landing Beaches	6	4	2	2	6	20
Markets	13	17	21	3	13	67
Hatcheries	—	—	6	6	—	12
Farm Fishpond Centres ..	4	6	5	5	6	26
Access Roads	1	—	2	3	—	6
Harbour Development	151	104	2	100	—	357
Buoys and Markers	1	—	—	—	—	1
Other navigation improvements	2	—	—	2	—	4
Productivity Research	4	5	—	—	—	9
Cold Store, Workshops and offices	80	80	—	—	—	160
Fishermens' Loan Programme..	10	10	10	10	10	50
TOTAL	308	300	210	271	267	1,356

Deep Sea Fishing

9.28. For some years the Government has been investigating the establishment of a deep sea fishing industry. The assistance of FAO was obtained to assess the fishing potential of the Indian Ocean along the coast in 1962 and this was followed in 1966 by the Government commissioning a fishery development consulting firm, the "Industrial Fishing and Organization Study and Establishment Group", to carry out a feasibility study into the establishment of a Mombasa based deep sea fishing fleet. The findings of the study indicated the viability of establishing such an industry and recommended the implementation of a first phase comprising the introduction of 12 longliners operating 200 to 300 miles from Mombasa, where there would be a fishing base with 1,000 tons capacity cold storage. However, taking cognizance of the fact that Kenyans have not had a deep sea fishing tradition, the Government has decided to embark on a different phasing to develop this industry. In the first year of the Plan, it has been decided to establish a fishing base at Mombasa that will have shore facilities for storage and transhipment of fish. These facilities will initially be rented to Japanese fishing firms which during the last 15 years have fished in the Indian Ocean water, often within 200 miles of Kenya ports. Their current annual catch is approximately 100,000 tons with a long-line fleet of 200 vessels engaged in the fishing. An aggregate sum of approximately K£200,000 will be invested in harbour facilities for the base, and a further investment of K£220,000 will be made in the cold store.

9.29. During the Plan period, two tuna long-line fishing vessels will be acquired for experimental fishing and for providing practical experience to trainees at the fishing school that is to be established at Mombasa. These vessels will eventually be acquired by a local company in which foreign fishing firms interested in marketing the catches, will be invited to participate. It is contemplated that this small fleet of vessels will be increased when the venture proves a success.

Inshore Fisheries

9.30. The Government's efforts to develop coastal fish resources have taken the form of setting up a Government-backed company, the Kenya Inshore Fisheries Limited, to exploit the crustacean resources and in establishing markets and loan programmes to assist the fishermen. Progress to date, as measured by the catch statistics, has been modest. The catch of marine fishes and crustaceans, has increased between 1961 and 1967 at slightly more than 3 per cent per annum. During the Plan ,the Government will give special attention to the development of inshore fisheries and has set a target of a 12 per cent per annum growth in the value of marine fish and crustacea landed from inshore waters.

9.31. The simple dugout canoes being used in the main for inshore fishing will be mechanized. It is planned to make 33 mechanized canoes available to the fishing villages through a reorganized fishermen's loan scheme and it is expected that the demonstration effect of these canoes will stimulate more fishermen to seek loans for the purpose of improving their productivity. Depending on demand, a number of servicing facilities in various fishing communities, including slipway facilities, workshops for engines and other equipment will be needed to support this mechanization programme. An estimated expenditure of K£40,000 will be directed to this programme.

9.32. The Malindi Wholesale Fish Market, inaugurated in 1961, has been a great success and has reached a stage where storage needs to be enlarged. It is proposed that a similar facility be established at Mombasa in co-operation with the Mombasa Municipal Council. Ice-making plants are to be established to supply fishing villages at Kiungu, Kipini, Vanga, Shimoni, Msambweni, Mtwapa, Watamu and Kilifi.

9.33. The development of the inshore fishing industry is dependent to a great extent upon the development of harbour facilities to cater for the fishing vessels. Malindi which lies at a suitable point for the development of these facilities is also an important tourist centre where sport fishing and yachting for leisure are important activities. There are, however, no sheltered harbour facilities at Malindi. The need for these facilities and also the need to control harbour pollution from the Sabaki River have prompted the carrying out of surveys at Malindi regarding both the establishment of a harbour and pollution control. A preliminary study has been carried out and the construction of a harbour to provide shelter and berthing facilities for inshore fishing and for sport fishing boats has been recommended. The facilities would be established in several phases, with the initial phase providing landing facilities that can cater for the landing of 3,000 tons of fish per annum and for a sizeable fleet of leisure boats.

9.34. Technical assistance is being provided to inshore fisheries, by the provision of engineers, master fishermen and inshore fishing volunteers. It is planned also to obtain experts in naval architecture, boat building, oyster culture, harbour operation and engine mechanics through technical assistance. It is expected that the assistance of the Government of Japan in research into the most suitable fishing gear and methods will continue through technical assistance but most of the research needs of the marine fishery will be met through the East African Marine Fisheries Research Organization. It is also hoped that the newly organized Indian Ocean Fisheries Commission will assist in meeting research needs.

Lake Victoria

9.35. Lake Victoria currently accounts for about three-quarters of the total quantity of fresh-water fish landed, although this fishery's share of the national total is declining as other inland fisheries are developed. Most of the fishing effort in the Kenya portion of Lake Victoria is limited to the shallower inshore areas, mainly because of the inability of the simple boats to go farther out into the deeper waters of the lake Inshore waters are approaching their maximum yield of fish and may even now be over-fished. To maintain the last Plan's 7.3 per cent annual rate of growth of fish landed from the lake, it is planned to improve the productivity of fishermen by encouraging them to use bigger mechanized boats which will enable them to reach the deeper waters of the lake. The Fishermen's Loan Programme will continue to be used in furnishing fishermen with improved boats and gear. Fishermen's co-operatives will also be used in demonstrating the advantages of improved equipment.

9.36. The market for Lake Victoria fish has kept pace generally with expanded production in recent years but there is evidence that some potential markets for lake fish in such large urban centres as Nairobi and Mombasa remain unsatisfied. To raise the quantity of fish from the lake reaching the market, an endeavour has been made in the past to establish landing beaches, collection centres and fish wholesale markets. Fish landing sites constructed under self-help programmes are nearing completion at Kaloka, Kendu Bay, Homa Bay, Port Victoria and Rusinga Island. It is now planned to establish more landing beaches during the Plan, amongst which will be landings at Naya, Usenge and Karungu. An allocation of K£6,500 has been made for this purpose. A pilot wholesale market which will cost K£30,000 and which will contain a cold store, an ice making machine, drying and smoking facilities, and an auction room will be established at Port Victoria. An insulated van will be attached to the market in order to transport fresh chilled fish to markets in Nyanza and Western provinces. Integrated with the wholesale market will be a series of fish storage facilities and selling stalls at major market centres where fresh and dried fish will be sold to rural traders. Based on an evaluation of this pilot project and on a marketing study of the western Kenya fish trade, steps will be taken to increase the supply of high quality fish and to penetrate the more remote markets. The marketing of fish will also be assisted by the improvement of access roads to the fish landings: road improvements estimated to cost K£260,000 are planned (in the road programme) to connect Karungu, Wanyama, Nyandiwa, Sindo, Kaloka, Victoria and Sio Port with main roads leading to markets.

Lake Rudolf

9.37. Lake Rudolf is the largest, virtually untapped, fresh-water fishery in Africa. Estimates of its maximum sustainable fish production potential range between 20,000 and 100,000 tons per annum. With current production levels of approximately 1,700 tons per annum, representing a three-fold increase since 1962, it can be seen that the potential of the lake is not being adequately exploited. The development of the fishing potential of Lake Rudolf would serve the dual purpose of increasing the quantities of fish made available for marketing, and of generating economic activity in northern Turkana, an area which does not have high potential for many other economic activities. The main problems to be contended with in developing the Lake Rudolf fishery are the remoteness of the lake from the fish markets and hence the transportation difficulties in reaching those markets, the problems relating to organization of fishing and processing of fish on a large scale and the marketing of the fish. A start in the fishery's development has been made in the Ferguson's Gulf area where a fishermen's co-operative operates a fishing and marketing business. It is planned to develop the fishery so as to increase production to 13,320 tons per annum by 1974.

9.38. To achieve this target various measures will be taken. The transport bottleneck between Lodwar and Ferguson's Gulf will be removed by establishing a lorry and tractor service between these two points and by erecting the necessary storage and housing facilities at Lodwar. Dried fish will be stored at Lodwar and traders will travel there from Kitale and Uganda to purchase the fish. It is expected that these arrangements will cater for a rise in the fish marketed from the lake to 3,000 tons of dried fish (the equivalent of 10,000 tons of fresh fish) per annum. Work has started on the construction of a major road to link Kitale and Nakuru to Lodwar and Ferguson's Gulf.

9.39. To promote fishing activity, an additional number of Turkana people will be recruited and trained to be fishermen and a qualified full-time manager for the established co-operative will be sought locally or through overseas technical assistance. Boats and fishing gear will be acquired through loans administered by the co-operative but obtained from international famine relief agencies.

9.40. The Government's major expenditure on the development of the fishery will be the construction of the Ferguson's Gulf-Lodwar-Kitale road at a cost of K£480,000 (in the road programme). Construction of stores and housing will account for an expenditure of K£25,900, boats and vehicles (K£6,500), fish landings (K£5,000) and productivity research (K£9,000). A fish marketing study to determine the prospects for an orderly expansion of sales of Lake Rudolf fish will be undertaken during the Plan period.

Lake Baringo Fishery

9.41. A fish filleting and freezing factory was established on the shores of Lake Baringo in 1967 to encourage the development of a local fishing industry. The factory resulted in the employment of 60 fishermen and 30 factory workers producing about 550 metric tons of fish per annum. The factory has, however, gone through a series of difficulties relating to management and the inadequacy of fish deliveries to the plant. Measures have been taken to eliminate these difficulties and in 1968 the factory was opened under new management. This has encouraged more fishing activity and additional licences and loans have been issued. The quality and quantity of fish output of the factory have been raised and the factory is now breaking even.

9.42. The objectives for the Lake Baringo fishery during the Plan are to increase the output by about 80 per cent, from 550 metric tons at present to 1,000 metric tons by 1974 and to improve the speed with which the catch is delivered to the factory. To achieve these objectives, fishing and collection boats with engines will be put into operation. Beds and stores for dried fish will be installed and fish landing beaches will be established. It is also intended to introduce additional species of fish to crop the under-utilized nutrients in the lake.

Fishponds

9.43. To the individual farmer, a fishpond can be highly profitable since it is usually constructed on wet land of low agricultural value, while the main cost of construction is local labour, the cost of which can be very low. The main annual operating expense is draining and restocking and very little effort is required at other times to maintain a steady harvest of fish for home consumption. Furthermore, fishponds, if properly developed, could play a most useful role in creating employment in the villages. There are now over 27,000 fishponds in the country, 20,000 of them located in Nyanza and Western provinces, and over 1,500 in Central Province. The main objective of the Government during the Plan will be to raise the productivity of established ponds : currently the annual yield rates are low and average about four kilos of fish per pond.

Sport Fishing

9.44. Kenya's streams, coastal waters and inland lakes have a large variety of fish suitable for sport fishing. There are 25 known commercial operators in big game fishing at the Coast and about 350 persons are employed directly in building, maintaining and crewing the sport fishing boats. In order to expand, the marine sport fishing industry needs docks, harbour improvements and better access roads. Government will install those facilities which will be needed by the industry which cannot be provided by the private sector. This will include improving reef entrances, boat jetties, markers and beacons, while the construction of Malindi Harbour will provide berthing facilities required for sport fishing and leisure yachting. Measures will be taken to conserve trout resources in trout fishing rivers, and to control the noxious weed, salvinia, threatening to take over parts of Lake Naivasha which has a black bass fishery yielding some 4,500 kilograms of fish per year and supports some five fishing resorts.

Loans to Fishermen and Fishermen's Co-operatives

9.45. The Fishermen's Loan Scheme which has proved successful in the past few years will be expanded. An allocation of K£50,000 has been made to this scheme for the Development Plan period. At the Coast, the objective is to provide better and larger boats of a standard design, equipped with inboard semi-diesel engines to enable fishermen to go out more often and farther off-shore. On the lakes, where water can often be rough, the use of boats of a similar type, but equipped with outboard engines, will be encouraged.

9.46. In the past, and especially at the Coast, the loan scheme has been plagued with repayment problems. With better loan supervision from the Fisheries Department, the situation has improved significantly, and loan repayment is no longer considered a major constraint in expanding the scheme. In future, although loans will be made individually to the fishermen, whereas repayment will be the responsibility of the co-operative through which all fish sales to traders will be channelled. The co-operative will automatically deduct the loan instalments from the fishermen's earnings, and consequently the fishermen's ability to pay back their loans will very much depend upon the managerial ability of the co-operative.

9.47. The Fisheries Department plans to reinforce fishermen's co-operatives to make them a more effective development tool than they have been so far. Co-operatives will centralize all fish sales for a given area, administer revolving loans for the purchasing of nets and fishing gear, administer the repayment of loans under the Fishermen's Loan Scheme, manage the fish stores and in some cases might ultimately become responsible for fish transport (Lake Rudolf) and processing (Lake Baringo, Lake Naivasha, Lake Victoria). In the initial stages, the Fisheries Department will provide staff to manage and later on supervise the operations of co-operatives in order to make sure that most of the benefits from the co-operatives accrue to the fishermen themselves.

Training

9.48. Training in the fisheries sector during the Plan will aim at covering the training of the Fisheries Department's junior and middle grade staff in the various activities connected with the fishing industry, training fishermen for crewing deep-sea long-line crafts in gear handling, seamanship, and other aspects of their occupation, and the training of inshore and fresh water fishermen in the use of modern methods of fishing, in seamanship, use of powered craft, simple accounting, quality control and marketing.

9.49. In the past, the training of the Fisheries Department staff was handled by the officers in charge of each station. This proved quite satisfactory because of the very small establishment of the Department and the small annual intakes. Recently, however, the functions of the Fisheries Department have been enlarged and have also become more complex, involving the need for even junior staff to acquire higher skills. It is therefore essential that the basic induction and training for junior and middle grade staff be institutionalized.

9.50. In addition, if the fishing industry is to grow at the target rate, it is essential that fishermen are instructed in the use of modern business techniques. A fishermen's training programme is therefore a matter that will have high priority.

9.51. In 1968, a fisheries training centre was established within the Mombasa Technical Institute. The maximum capacity of the centre's facilities is 20 students at a time and it is only possible to have two such courses in a year. At this rate, an adequate number of middle grade staff for the Fisheries Department will have gone through the basic course by the end of 1969 and junior staff in the subsequent two years. It is proposed to reserve half of the annual capacity of the centre, 20 persons, per annum, for the training of junior and middle grade staff while the other 20 places are to be allocated to training fishermen. As it would take too long for the centre to train all fishermen from the large number of fishing villages in the country—about 150 major and 400 minor centres, the Government will aim to train at least one leading fisherman from each. The limitations of the Fisheries Training Centre at the Mombasa Technical Institute will be eliminated by the establishment of a separate Fisheries Training School for which an allocation of K£40,000, has been made covering the construction of buildings and the purchasing of equipment. To accelerate the school's efforts to reach fishing villages, mobile training facilities will be established which will be manned by the school's staff during part of the year when the school will be in recess. Two such mobile facilities which will cost K£10,000 will be capable of offering training in about 20 villages in a period of three months.

MINES AND GEOLOGY

9.52. Although mining is still a relatively small industry, it is one which has a great potential for expansion, with the possibility of exploiting the wide range of the mineral deposits that have been discovered. The output of the industry which in 1968 was valued at K£3.5 million will, without anticipating dramatic events such as the discovery of oil which would completely change the picture, rise at a projected average rate of 7.3 per cent per annum during the Development Plan period. This rate of growth will raise the output of the industry to approximately K£5.3 million in 1974. The foreign exchange earnings from the industry will rise from K£1.5 million in 1967 to K£2.1 in 1974. Employment should rise from 4,800 persons in 1967 to approximately 6,000 persons in 1974.

9.53. Geological surveys have been carried out over 425,000 sq. kilometres which is approximately three quarters of the country. A variety of mineral deposits containing copper, gold, silver, iron-ore, lead, zinc, nickel, barytes, kyanite, wollastonite and others have been found. Many of the known mineral deposits whose development would lead to much greater output and activity in this sector have remained undeveloped for various important reasons.

9.54. The development of mining has been held back by the fact that the industry is a highly technical activity which in most cases also entails large capital investments. The relevant skills and capital for the exploitation of our mineral resources are not available locally. To develop the mining industry, overseas skills and capital will have to be attracted to the country. During the Plan period, measures will be taken to create incentives for overseas investors to come and assist in exploiting mineral resources. These measures will include guaranteeing the continuation of mining titles over a period of several years, assurances in the levels of taxation, royalty and export duties.

9.55. A further deterrent to mining development is the small number of local manufacturing industries using mine products as raw materials. The progress being made in the industrial development of the country should create progressively new demand for some of our mineral resources. The development of the wollastonite mine at Kajiado for the local ceramics industry is an example of this type of development.

9.56. Other factors that deter the development of the known mineral deposits are the remoteness of the localities where some of them occur (in many instances these localities are not served by either railway or road transport) and the low grade and inadequate quantities of the deposits. To illustrate the impact of the latter factors, graphite, kyanite and anthophyllite asbestos deposits that were mined at one time are now not capable of producing material to meet the specifications laid down by the industries which use the minerals and the mines have therefore had to be abandoned.

Mineral Output

9.57. The leading mineral continues to be sodium carbonate, more popularly known as soda ash whose sales in 1968 amounted to K£1,225,000. As shown in Table 9.9 below, the output of soda ash is expected to rise: the rate of growth of sales revenue is expected to be 3 per cent per annum. Future prospects are good as the world demand and prices for the mineral continue to rise.

MINING AND QUARRYING PRODUCTION ESTIMATES, 1967–74

Table 9.9 K£'000 (1967 *Prices*)

	1967	1968	1974
Metal Mining	448	486	700
Soda Ash	1,122	1,225	1,450
Other Minerals	617	765	1,050
Quarrying	1,035	1,047	1,850
TOTAL	3,222	3,523	5,050

9.58. The metal mining sector, whose output in recent years has declined, mainly on account of the cessation of copper mining as a result of the exhaustion of high grade copper deposits, is expected to revive through the development of gold mining in western Kenya and lead-and-zinc at the Coast.

9.59. The metals sub-sector may receive a further fillip through the development of the mining of niobium and europium and other rare-earth minerals at Mrima Hill. The latter will be a major investment venture to be undertaken by a French firm. Both europium and niobium are minerals whose world demands are good and expected to remain high in the future. Ore reserves are estimated to be around 40 million tons. The current price per metric ton of niobium metal is approximately K£1,200 and the price for europium K£1,000.

9.60. The Exploration Team of the Mines and Geological Department is currently investigating the feasibility of mining lead and zinc near Ribe in the Coast Province. Preliminary investigations show that the mining of these minerals can be viable undertakings. It is proposed that tenders will be invited in 1970 for the development of the mineral deposits.

9.61. In Table 9.9 above, the sub-head of "other minerals" includes salt, diatomite, carbon dioxide and gypsum. This group is likely to expand production rapidly during the Plan period, mainly because of the large increase forecast for salt. It is estimated that the output of salt will rise from a value of K£618,000 in 1968 to K£1,030,000 in 1974 at constant (1967) prices, an increase, in physical terms, from 60,000 tons to 100,000 tons. If the Broderick Falls Pulp and Paper Mill establishes a chlorine manufacturing plant based on the electrolytic process of making chlorine, the internal consumption of salt would rise sharply around 1974, as salt is the main input item in the process. A rapid growth is also envisaged for limestone (included in the sub-head quarrying) and gypsum which are used for cement manufacture. It is estimated the value of limestone and lime output in 1974 will be K£765,000 as compared to the 1964 output of K£258,100. Building activity during the Plan will sustain a high demand for cement and for the ingredients which are used in its manufacture. Other quarry products will be required in line with the growth of the building industry.

Development Expenditure

9.62. Capital investment by the public sector will mainly be in the construction of a Mines and Geology headquarters which will cost K£182,000. Other capital expenditures will cover such items as vehicles, mining and drilling machines and laboratory equipment.

MINING AND QUARRYING GOVERNMENT DEVELOPMENT EXPENDITURE AND PRIVATE SECTOR CAPITAL FORMATION

Table 9.10 K£'000

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Mines and Geology Headquarters	100	82	—	—	—	182
Mineral Exploration	25	25	25	25	25	125
Other	5	5	5	5	5	25
Total Central Government Expenditure	130	112	30	30	30	332
Private Sector Capital Formation	450	450	750	1,375	1,100	4,125
GRAND TOTAL ..	580	562	780	1,405	1,130	4,457

9.63. In the private sector, substantial investment will be required for the establishment of the niobium and europium mine at Mrima Hill. It is estimated that investment there will amount to at least K£75,000 per year during the Plan period. It is also expected that private expenditure on base metal exploration, will amount to at least K£150,000 per annum by 1974. The quarrying industry's investment is projected to rise from K£148,000 in 1967 to K£421,000 in 1974 to provide the increase in production estimated. Expenditure on exploration of petroleum and gas will average about K£1 million annually during the Development Plan period.

Exploration

9.64. Departmental prospecting has been completed for deposits of kyanite at Murka, wollastonite at Kajiado, manganese at Kiwara in the Coast Province, and niobium and europium minerals at Mrima Hill in the Coast Province. The Kyanite deposit has recently been resurveyed and subjected to a feasibility study by a Japanese company. The wollastonite deposit is being developed by a local company with the intention of producing several hundred tons per month when export markets are established for this quantity. The Mrima niobium and rare-earth deposit has been placed under licence to an international company and the actual development of the mine is to commence in 1970.

9.65. Exploration activities will continue in western Kenya within the framework of the United Nations Mineral Resources Survey. The main programme terminated in April, 1968, but is continuing on a reduced scale. Its task is currently to appraise the gold mining prospects in western Kenya and also to finalize geochemical surveys, part of which have already been carried out. The United Nations Mineral Resources Team has achieved success in locating hitherto unknown deposits, the grade and extent of which remain to be established by further drilling. The Mineral Exploration Team, a division of the Mines and Geological Department designed to provide a means of utilizing overseas experts on special exploration tasks and to provide drilling and specialized laboratory staff, will continue the work initiated by the United Nations Mineral Resources Survey team. Specifically, it will extend base metal exploration programmes in the Coast Province and West Pokot.

CHAPTER 10—MANUFACTURING

The Strategy of Industrialization

The Government's first industrial goal is to accelerate the rate of manufacturing development, consistent with economic viability and the maintenance of stable price levels for industrial goods. The rate of growth of manufacturing over the period 1964-68 averaged approximately 5.7 per cent per annum, and it is believed that by following the policies outlined in this Plan, the rate of growth can be accelerated to approximately 9 per cent per annum: a rate of 8.9 per cent is the target set for manufacturing over the period 1967-74. Government considers that this somewhat ambitious target is compatible with the other aims of the Plan, in particular the aims for agricultural production and other programmes for rural development; for the resources that will have to be invested in manufacturing to achieve the industrial output targets would be available, only to a limited degree, for alternative investment in agriculture or other rural activities. Provided the industries developed are viable at current price levels—as is the Government's policy—the promotion of industrialization is consistent with the general Plan strategy of rural development. Indeed, it is complementary to it; for increasing rural incomes will widen the markets for locally produced manufactures, which in turn will widen the markets for agricultural produce when these are suitable for industrial processing.

10.2. Secondly, although acceleration of industrial growth is the first aim of Government's industrial policy, active and steadily growing participation of Kenya citizens in the management and ownership of industry is also regarded as very important. Kenyans had few opportunities to obtain positions in senior management until the last few years, and Government places priority on the local people being able to play a greater and more effective role in the industrialization process. It is, however, recognized that certain skills are in short supply and it will, therefore, be necessary to continue to obtain the services of some skilled expatriates if the production targets of this Plan are to be achieved.

10.3. Thirdly, Government aims to increase the degree of processing of raw materials produced in the country and gradually to export processed products rather than raw materials. It is also hoped to move more deeply into the industrialization process, rather than continue to concentrate on the more simple manufacturing. The country has already made substantial strides industrially and most of the more obvious simple manufacturing opportunities have been taken up: it will now be necessary to move to a higher level of industrialization, involving greater capital investment and more sophisticated techniques.

10.4. Fourthly, the Government believes that the country has not yet exhausted all opportunities for import substitution industries. In the last five years, there has been a considerable amount of import substitution and this trend will continue in the next five years. The Government recognizes that most capital goods will continue to be imported but there are increasing opportunities for producing both capital and consumer goods locally which are at present imported.

10.5. Fifthly, Government aims to increase its own participation in the growth of industry, both in terms of the promotion of new projects and in the financing of them. The Government is, on occasions, able to take a wider view of industrialization than a single private investor. Linkages between projects may make them viable when carried out together, whereas they might not be viable if considered separately. The Government is in a unique position to promote such complementary projects.

10.6. Sixthly, the Government aims to achieve a wider geographical dispersal of the benefits of industrialization. New industries have already been set up outside the two main centres of Nairobi and Mombasa and it is proposed to obtain a further dispersal of new projects to other urban areas and rural areas. There are some industries that are not dependent on the close proximity of other industrial infrastructure, and external economies in other towns will build up as new industries are attached to them.

10.7. Finally, subject to the provisions of the East African Treaty, Government aims to encourage the development of the East African countries as a single market area, so that industry can expand to a scale that would not be feasible if the Kenya market were considered alone. In this way, economies of scale will be achieved in these industries in which large scale production has a significant impact on the cost per unit of production.

Projections for Individual Industries

10.8. Government will aim to promote an average growth rate of manufacturing gross product (value added) of nearly 9 per cent and a somewhat less rapid rate of growth of output. The difference between the two projections reflects the assumption and strategy that industry in this country will not only expand but also deepen, in the sense that it will process more raw materials and primary products and not just process or assemble semi-manufactures. This will be the case, particularly, where planned projects will cover the complete manufacturing process. The target entails a faster rate of growth in manufacturing than has taken place since Independence, but it is confidently expected that demand for manufactured goods will now rise more rapidly as farm and other incomes grow at the planned rates. The 8.9 per cent growth projection for industry must be seen against a background of an expected rise in monetary GDP for the whole economy approaching 8 per cent.

10.9. The basis for the detailed projections set out below is the Census of Industrial Production 1967 which covered all manufacturing enterprises with five or more employees, plus estimates for enterprises employing less than five employees in urban areas. The projections cover more than 95 per cent of all manufacturing. Small rural enterprises with less than five workers are considered separately, since it is not known how much capital they employ or how much capital they are likely to need for expansion. But because of the small weight of these establishments in the total product of manufacturing, the aggregate overall growth rate used for planning purposes is 8.9 per cent.

10.10. The overall growth projection and the total investment estimate associated with it are based on detailed estimates for individual industries. This makes the overall projection considerably more realistic than if the procedure had been the reverse, with an aggregate growth figure being decided upon in advance and then allocated between industries. The product and output projections for individual industries, are shown in Table 10.1. They relate to specific projects in a considerable number of cases, but about half the envisaged growth consists of *projections* rather than projects. Main specific projects taken into account are the following:—

Meat processing (expansion of Kenya Meat Commission at Athi River and Uplands Bacon Factory at Uplands).

Dairy products (expansion of Kenya Co-operative Creameries).

Canning (pineapple canning plant, Thika).

Sugar Industry (expansion of existing factories and one new factory at Mumias).

Beer (expansion of the breweries and new plant).

Textiles (two integrated textile mills at Nakuru and Eldoret).

Wood products (sawmilling expansion and veneer plant).

Pulp and paper (mill at Broderick Falls).

Rubber (tyre plant in Nairobi).

Petroleum products (refinery extension, grease plant and lubrication oil plant at Mombasa).

Metal products (steel re-rolling mill in Mombasa).

10.11. In industries where specific projects are not known, it is still possible to make projections by considering past growth trends and by taking into account the scope for expansion provided by the general growth of domestic demand, export opportunities and import substitution. The projections have been made for each industry taking into account not only technical but also economic feasibility.

PROJECTIONS* OF GROSS PRODUCT AND OUTPUT BY INDUSTRY

Table 10.1 *at* 1967 *Prices*

INDUSTRY	GROSS PRODUCT (VALUE ADDED)			GROSS OUTPUT		
	1967 K£'000	Growth rate per cent	1974 K£'000	1967 K£'000	Growth rate per cent	1974 K£'000
Meat processing	719	7·5	1,193	6,865	7·5	11,396
Dairy products	1,066	6·0	1,600	7,620	6·0	11,430
Canning of fruit and vegetables	247	14·0	619	1,338	14·0	3,344
Grain milling	2,029	5·0	2,861	11,288	5·0	15,916
Bakery products	785	8·0	1,342	3,370	8·0	5,762
Sugar	582	15·0	1,550	2,804	10·9	5,777
Confectionery	72	7·8	122	241	7·8	408
Miscellaneous food	731	10·6	1,485	3,110	10·6	6,282
Total food processing ..	6,233	8·1	10,771	36,635	7·4	60,314
Beverages and tobacco	5,261	6·0	7,891	11,221	6·0	16,832
Cotton ginning	135	5·8	200	943	5·8	1,399
Knitting mills	248	7·5	411	778	7·5	1,291
Cordage, rope and twine ..	653	0·0	653	1,644	0·0	1,643
Spinning and weaving	762	24·0	3,438	2,842	20·1	10,232
Total textiles	1,798	14·7	4,703	6,206	12·6	14,565
Footwear	511	7·0	822	2,148	7·0	3,458
Clothing and made up textiles ..	1,356	8·0	2,319	4,748	8·0	8,118
Total Footwear and Clothing	1,867	7·7	3,140	6,895	7·7	11,576
Wood products	1,177	8·2	2,048	3,029	8·2	5,270
Furniture and fixtures	904	9·0	1,654	2,831	9·0	5,180
Pulp and paper	799	26·0	4,122	3,110	18·1	10,000
Publishing and printing.. ..	2,635	7·5	4,375	5,649	7·5	9,378
Leather and fur	195	9·0	357	906	9·0	1,659
Rubber	335	36·0	2,848	944	29·0	5,570
Chemicals and petroleum ..	5,463	8·0	9,337	25,470	8·0	43,738
Non-metallic minerals	2,446	6·0	3,669	5,911	7·5	9,812
Metal products	2,395	7·5	3,976	7,509	7·5	12,466
Machinery	2,774	8·3	4,854	5,320	8·3	9,310
Transport equipment	7,489	7·0	12,058	13,111	7·0	21,108
Miscellaneous	602	7·5	1,000	1,807	7·5	3,000
Total Manufacturing* ..	42,372	8·9	76,803	136,555	8·4	239,778

*Excluding small rural establishments, the total product of which was estimated at £K2·8 million in 1967 and is projected at K£5·3 million for 1974.

10.12. The product projections set out in Table 10.1 represent estimates for urban and large scale rural manufacturing only. They do not cover the small rural workshops and handicraft industries which are still strictly part of manufacturing industry and are included in the estimate of the total product of manufacturing set out in Table 10.4. In 1967, the gross product of the small rural industries was equal to K£2.8 million, representing rural brewing, small tailors, furniture makers, bicycle and motor repairers, "posho" mills, sawmills and handicrafts, etc. The Plan emphasis on rural development will undoubtedly give much more impetus to the growth of small rural industries of these types and although there is no basis for projecting the rate of growth at all accurately, it is assumed for the purpose of the Plan that they will expand at a rate approaching that of urban and large-scale industry. On this basis, the product of manufacturing as a whole will increase from K£45.2 million to K£82.1 million in 1974, an overall rate of 8.9 per cent per annum.

10.13. The changing structure of industry is illustrated by the following list showing the ranking of industries in 1967 and as projected in 1974. The broad industrial groupings are ranked according to gross product (value added), output, and employment.

RANKING LIST OF INDUSTRIES BY GROSS PRODUCT, OUTPUT AND EMPLOYMENT IN 1967 AND 1974

Table 10.2 *Ranking Order*

	Gross Product		Output		Employment	
	1967	1974	1967	1974	1967	1974
Transport equipment	1	1	3	3	1	1
Food processing	2	2	1	1	2	2
Chemicals and petroleum products	3	3	2	2	8	9
Beverages and tobacco	4	4	4	4	7	7
Machinery	5	5	10	11	6	6
Publishing and printing	6	7	9	10	9	10
Non-metallic minerals	7	10	8	9	11	11
Metal products	8	9	5	6	10	8
Footwear and clothing	9	11	6	7	4	5
Textiles	10	6	7	5	3	3
Wood products	11	13	12	13	5	4
Furniture and fixtures	12	14	13	14	12	13
Pulp and paper products	13	8	11	8	14	12
Miscellaneous	14	15	14	15	13	14
Rubber products..	15	12	15	12	16	16
Leather products	16	16	16	16	15	15

10.14. It can be seen from this table that textiles, pulp and paper and rubber products will move up in the ranking list for gross product (value added), with parallel changes generally occurring in the ranking of output. It can also be seen that five leading industries, transport equipment, food processing, chemicals and petroleum products, beverages and tobacco, and machinery manufacture and repair, in this order, are expected to retain their positions. Detailed comments on the expected growth of individual industries are set out in industry notes in the final part of this Chapter, commencing at paragraph 10.74.

Investment

10.15. An increase of manufacturing gross product of the order of 80 per cent over seven years, as envisaged, will require that substantial industrial investment is undertaken over the Plan period. This investment can be considered in two parts. On the one hand, there will be the investment necessary to replace industrial assets and maintain the existing productive capacity at the (higher) level achieved each year, and on the other hand there will be investment necessary to increase productive capacity to achieve the productions targets set out in Table 10.1.

10.16. Estimates have been made of the new investment required to achieve the expansion targets in each industry separately and these are set out in Table 10.3. Estimates of necessary "replacement investment" have not been made for each industry individually but only for manufacturing as a whole, since insufficient information is available as to the age of machinery, buildings and equipment in any one industry. The "new investment" projections cover the period 1967-73, on the assumption that the increase in output during 1968-74 can largely be ascribed to investments during 1967-73.

10.17. An estimate of the actual gross investment (capital formation) undertaken over the years of the Plan 1970-74 is set out in Table 10.4 for manufacturing as a whole. As noted above, about half the "new investment" during the Plan period relates to specific projects, the cost of which is already known within reasonable limits. The other half represents estimates of the "new investment" estimated to be required to achieve the projected increases in value added or output, using independently determined incremental capital output ratios*.

10.18. The new capital required to produce a given increase in output will vary substantially between different industries, some like the sugar industry being particularly high. From the national point of view, there might seem to be an advantage in concentrating on those industries which are expected to have a low incremental capital output ratio, since more output and economic benefit can be obtained from less capital. But this would be an over-simplification, while the fact must be faced that if the country is to move into the more sophisticated industrial fields, it will have no option but to set up industries which are relatively more capital intensive.

10.19. On these calculations, the expansion of urban and large-scale rural industry, projected up to 1974 will require, over the period 1967-73, an injection of new investment funds above those required for normal replacement, equivalent to some K£79.3 million. However, it is estimated that some K£30 million of this total will be undertaken during the years 1967-69. At the same time, for Plan purposes investment in the year 1974 has to be taken into account, even though such investment is unlikely to affect production significantly until after the Plan period. Estimates have been made for investment in 1974, on the assumption that the economy will continue to grow

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* These estimates have, on the industry level, been checked against data indicating the average ratios between capital assets employed and value added in manufacturing in 1968, and also against international time-series and such data as given by UNIDO in "Profiles of Manufacturing Establishments" (UN -ID/SER.E/4 and 5, Vols. I and II, New York 1967 and 1968). In many cases, adjustments have been made taking into account the known existence of excess capacity in individual enterprises.

Table 10.3

Industry	Projected increase in Gross Product 1967–74* K£'000	Incremental capital output ratio	New investment 1967–73 K£'000
Meat processing	474·5	2·53	1,200
Dairy products	533·2	2·81	1,500
Canning of fruit and vegetables	371·3	2·96	1,100
Grain milling	832·0	1·68	1,400
Bakery Products	557·1	0·99	550
Sugar	967·0	8·79	8,500
Confectionery	49·7	1·01	50
Miscellaneous food	753·3	1·99	1,500
Total Food Processing	4,538·1	3·48	15,800
Beverages and tobacco	2,630·3	1·90	5,000
Cotton ginning	65·4	1·53	100
Knitting mills	163·5	1·83	300
Cordage, rope and twine	—	—	—
Spinning and weaving	2,676·1	3·55	9,500
Total Textiles	2,905·0	3·41	9,900
Footwear	311·5	0·96	300
Clothing and made up textiles	962·8	0·62	600
Total Footwear and Clothing	1,274·3	0·71	900
Wood products	871·1	1·95	1,700
Furniture and fixtures	750·0	1·33	1,000
Pulp and paper	3,323·4	3·76	12,500
Publishing and printing	1,739·3	1·03	1,800
Leather and fur	162·0	1·23	200
Rubber	2,512·5	2·39	6,000
Chemicals and petroleum	3,874·6	2·86	11,100
Non-metallic minerals	1,222·9	3·15	3,850
Metal products	1,580·9	1·58	2,500
Machinery	2,080·2	1·35	2,800
Transport equipment	4,568·5	0·87	4,000
Miscellaneous	398·0	0·63	250
TOTAL MANUFACTURING	34,431·1	2·30	79,300

*1967 prices.

after the Plan at about the same pace, implying that manufacturing investment requirements will grow by about 10 per cent in 1974. An allowance has also been made for the small investment requirements of rural small scale industries, since although these are not expected to affect the overall total to any significant extent, they must be taken into account in a projection of total gross investment. The timing of investment expenditures will be subject to considerable uncertainties but the approximate path of total investment and total gross product over the Plan period is set out in Table 10.4. The overall gross capital output ratio, after lagging investment by one year and comparing investment in the five years 1969-73 with the increase in product over the five years 1970-74, is 3.2. This ratio is a little higher but not significantly so, than the similar ratio over the last five years.

PROJECTIONS OF TOTAL GROSS INVESTMENT AND GROSS PRODUCT IN MANUFACTURING

Table 10·4 *K£ millions* 1967 *prices*

	Gross investment	Gross Product (Value Added)
1967	14·9	45·2
1968	13·4	49·2*
1969	14·8	53·6
1970	16·0	58·4
1971	18·0	63·6
1972	20·0	69·2
1973	22·0	75·4
1974	24·0	82·1
1970–74	100·0	348·7
1968–74 Average annual growth per cent	10·2	8·9

*The provisional estimate of manufacturing product in 1968 is in fact K£48·5 million (1967 prices). On this basis, the projected average rate of growth 1968–74 is 9·2 per cent.

The Market for Manufactures

10.20. Industrial output in 1967 was equal to about two-thirds of the total domestic use of manufactures. This is a very high ratio for a developing country and indicates that the home market must be regarded as the largest single determinant of industrial growth. Table 10.5 shows that the projected 8.4 per cent growth of output is accompanied by a projected 8.3 per cent growth in domestic use of manufactures. A realization of the growth projections for the economy as a whole—and a realization of the investment plans which they entail—should therefore assure local manufacturers of the necessary scope for expansion.

10.21. Import substitution which has often been regarded as the main driving force behind industrial development will not be as important during the Plan period as it used to be. An analysis of the end use of manufactures shows the following breakdown for 1967:

Intermediate goods	58 per cent
Capital goods	21 per cent
Consumption goods	21 per cent
	100 per cent

It is generally thought that the greatest opportunities for import substitution lie in the field of consumer goods but the figures show that consumption goods only accounted for 21 per cent of the total (or about K£20 million). Intermediate goods represent a much larger group in imports but also one where the substitution opportunities are very much dependent on technical factors and the availability of raw materials. Where such problems can be overcome, such as in the case of the proposed pulp and paper project or the rubber tyre factory, substantial inroads will still be made in the import bill. With respect to machinery and equipment, the technical complexity of the products and the minimum scale of economic production are usually such that it would be uneconomic for this country to attempt import substitution in many cases.

10.22. A review of the economically feasible field of import substitution within the span of the new Plan shows that it would be very costly to attempt to reduce total imports of manufactures, or even to keep them at a constant level. The Plan projections imply that such imports will rise, but at a slower rate than local production. This difference in growth rates in itself represents a significant degree of import substitution.

10.23. Exports of manufactures are difficult to forecast and for this reason have been projected at a very conservative rate of 5.5 per cent per annum. The uncertainties regarding access to established markets in neighbouring countries are well known, and in the case of some individual commodities, it is even assumed that sales to neighbouring coutries will fall as a result of their own industrialization. For some commodities, continued, but slower growth in sales to our East African neighbours can be expected, and it is clear that the projected total rate of growth of manufacturing exports can only be achieved if we succeed in breaking ground in new markets in Africa and in the Indian Ocean area. Details of projected exports of manufactures are set out in Table 5.4 (Chapter 5) and on the basis of these estimates it is expected that the share of manufactures in total exports will fall slightly.

10.24. There is no doubt that the export potential for manufactures is considerable, both as regards foreign demand and the capacity to meet such demand. Indeed, while it is prudent to assume a growth of exports of no more than between 5 per cent and 6 per cent, it is possible that the country could achieve 10 per cent per annum growth in exports. The constraints of a more rapid expansion of exports are not thought to lie in local supply limitations; for an assumption of 10 per cent in manufacturing exports (instead of 5.5 per cent) would make a difference of about K£22 million in output by 1974. This amount would correspond to 9 per cent of 1974 output as now projected, and there is little doubt that it could be accommodated within the production structure as now foreseen.

10.25. An important constraint on exports lies in a tendency for costs and prices in Kenya manufacturing to rise faster than those of overseas competitors. Provided that costs and prices can be kept under control, and provided also that more effort is put behind sustained sales promotion in old and new markets, it should indeed be possible to expand exports faster than now forecast.

MANUFACTURING BALANCE, 1967 AND 1974

Table 10.5

	1967 K£m*	1974 K£m*	Annual growth per cent
1. OUTPUT			
(*a*) At producer prices	140·8	246·2	8·3
(*b*) At wholesale prices	172·2	300·3	8·3
2. IMPORTS			
(*a*) c.i.f.	96·5	158·7	7·4
(*b*) wholesale prices	127·5	214·6	7·7
3. EXPORTS ..			
(*a*) f.o.b.	42·8	62·4	5·5
(*b*) wholesale prices (notional)	43·4	62·9	5·5
4. DOMESTIC USE at wholesale prices =1b+2b—3b	256·3	452·0	8·4

*In 1967 prices.

Employment and Productivity

10.26. It is estimated that employment in manufacturing as a whole will expand by about 30,000 from 1967 to 1974. Two-thirds of this increase will be accounted for by the expansion of urban and rural large scale industry, while it is confidently expected that the basic Plan strategy of rural development and the programmes for the expansion of small scale rural industry should lead to a further 10,000 jobs being created. Overall, this means that manufacturing employment will grow from 106,000 to about 136,000, an average rate of growth of 3.5 per cent, and that productivity (here defined as value added per worker) will grow by about 5 per cent per annum. Projections of employment changes compared with the growth of gross product in each industry separately for the urban and larger rural establishments are set out in Table 10.6.

10.27. It is clear from these figures that in spite of the expanded industrialization policy planned by the Government, manufacturing by itself is not going to offer, during this Plan period, a solution to the problems of unemployment and underemployment discussed in Chapter 4. However, the employment benefits of industrialization should not be measured only in terms of the number of jobs created directly by manufacturing firms. In addition to the direct employment increase of about 30,000, the growth of manufacturing will result in a substantial increase in employment in the main supplying sectors of the economy. These main supplying sectors are, in order of importance:—

(i) Agriculture and forestry,

(ii) Transport, storage and communications,

(iii) Trade and other services,

(iv) Electricity and water.

10.28. Manufacturing enterprises in 1967 purchased about K£40 million worth of inputs from these supplying sectors. Half the purchases came from agriculture and forestry and the total number of workers engaged in producing such inputs for manufacturing may have been of the order of 70,000 persons, By 1974, it is likely that manufacturing enterprises will be buying about K£65 millions of goods and services from the above sectors, and that the number of workers engaged in producing them will be over 100,000.

10.29. In 1967, every 100 workers in industry were backed by some 70 workers in the supplying sectors. This ratio is likely to persists or even improve by 1974, and it gives a rough indication of the importance of manufacturing industry as a source of employment overall.

INDUSTRIAL EMPLOYMENT PROJECTIONS*

Table 10.6

Industry	Product growth 1967–74 per cent	Employment growth 1967–74 per cent	Numbers employed 1967	Numbers employed 1974	Increase in employment 1967–74
Meat processing	7·5	0·8	2,021	2,150	129
Dairy products	6·0	2·6	1,440	1,728	288
Canning of fruit and vegetables	14·0	6·5	1,715	2,659	944
Grain milling	5·0	2·7	2,273	2,750	477
Bakery products	8·0	3·4	1,425	1,795	370
Sugar	15·0	2·6	1,744	2,100	356
Confectionery	7·8	5·4	131	189	58
Miscellaneous food	10·6	7·5	1,231	2,049	818
Total Food Processing	8·1	3·7	11,980	15,420	3,440
Beverages and tobacco	6·0	3·7	3,534	4,555	1,021
Cotton ginning	5·8	7·7	126	212	86
Knitting mills	7·5	10·4	793	1,587	794
Cordage, rope and twine	—	neg	2,032	1,699	−333
Spinning and weaving	24·0	9·6	2,836	5,388	2,552
Total Textiles	14·7	6·3	5,787	8,886	3,099
Footwear	7·0	7·9	1,175	2,000	825
Clothing and made up textiles	8·0	1·4	3,727	4,100	373
Total Footwear and Clothing	7·7	3·1	4,902	6,100	1,198
Wood products	8·2	4·5	4,678	6,373	1,695
Furniture and fixtures	9·0	0·4	1,929	1,982	53
Pulp and paper	26·0	11·9	1,004	2,210	1,206
Publishing and printing	7·5	3·5	3,147	4,000	853
Leather and fur	9·0	9·6	474	900	426
Rubber	36·0	10·1	382	750	368
Chemicals and petroleum products	8·0	3·4	3,217	4,058	841
Non-metallic minerals	6·0	3·4	2,056	2,600	544
Metal products	7·5	5·1	3,140	4,458	1,318
Machinery	8·3	2·5	3,946	4,703	757
Transport equipment	7·0	1·6	14,487	16,251	1,764
Miscellaneous	7·5	7·8	1,039	1,754	715
TOTAL Manufacturing	8·9	3·7	65,702	85,000	19,298

*Excluding small rural establishments and self-employed.

Policies to Achieve the Targets

10.30. This chapter so far has been concerned with the overriding industrial strategy of the Government—that is to accelerate industrial growth. It has considered what, in the light of demand trends in the growing economy, appears to be a feasible industrialization programme and the investment allocations that will be necessary to achieve the output and employment targets set down. Other things being equal, these must, however, remain targets, since the major part of the investment required will be sought from the private sector. However, as indicated in the first part of this chapter, the Government proposes to adopt a much more positive role in the industrialization process than hitherto. Government plans to induce indirectly or promote directly the industrial development required to achieve the targets set and to achieve the other strategic aims outlined in the first section. This section of the manufacturing plan will consider the means available to the Government and the policies that will be followed in order to achieve the targets. The final part of this chapter will consist of detailed industry notes outlining the developments that are expected or planned in each industry separately.

The Ministry of Commerce and Industry

10.31. In order to be able to undertake a more positive role in the industrialization process, the Ministry of Commerce and Industry has been reorganized. An Industrial Development Division has been set up within the Ministry to give the needed attention to industrial (and commercial) planning. The Division will also be required to aim at a better scheduling of project implementation and a more efficient liaison with other economic ministries. The Division includes a newly created Industrial Survey and Promotion Centre and will bring together and expand the available data on industrialization in the country. K£82,000 has been allocated for industrial surveys and planning.

Promotion and Finance of Projects

10.32. The role of the Government in the promotion of new industries is undergoing a significant change. Hitherto, the initiation of projects has been left largely to private enterprise; such projects as were submitted were reviewed by the Government to determine their profitability, and their eligibility for certain forms of incentives and protection. The Government will continue to review projects submitted by private sponsors in this manner, but greater attention will in future be given to the evaluation of projects from the standpoint of their benefit to the national economy.

10.33. However, in future the Government will also promote industrial projects on its own account by carrying out feasibility studies. This involves a complete change of approach, for instead of dealing with single projects on an *ad hoc* basis, efforts will be directed towards making whole industry or even inter-industry studies. It can be the case that two or more industrial projects or programmes taken together may be viable because they are complementary or inter-related, but when such projects are studied in isolation they are not viable.

10.34. As part of its development activities, the Ministry of Commerce and Industry, with the support of its Industrial Survey and Promotion Centre will provide a new advisory service where prospective investors can obtain information on investment opportunities and competent advice on the many questions involved in setting up a new enterprise. In order to strengthen its power to protect new industries, the Government proposes to introduce new legislation for industrial registration.

10.35. In addition, every new project and every expansion of an existing industry which requires Government financial participation will be subject to scrutiny by an inter-ministerial Projects Committee which will advise the Government on the costs and the benefits of each project. The Committee is composed of civil servants and technicians from the ministries concerned, and representatives of Government's two investment companies also participate in its work.

10.36. The total amount of Government's financial participation in the industrialization process must necessarily be limited, in the light of the total investment programme required (K£100 million) and Government's total commitments for the Plan (K£180 million). But the total amount is less important than the fact that Government is ready to participate on a joint basis with private investors and, by so doing, indicate its confidence in particular projects and thereby get them under way more quickly than might otherwise be the case. Government participation also provides an opportunity to influence the direction of company policy in accordance with general industrial strategy. A sum of K£922,000 has been allocated for direct Government participation in industrial ventures during the Plan period.

10.37. Various means will be used to stimulate the flow of investment capital into industrial projects and Government will make full use of the existing financial institutions, in particular the Industrial and Commercial Development Corporation (I.C.D.C.), a statutory corporation, and the Development Finance Company of Kenya (D.F.C.K.), its part owned subsidiary.

Industrial and Commercial Development Corporation

10.38. The role of the ICDC in the industrial development programme will consist of: investment in large industrial projects, the development of industrial estates, and the development of rural and other small scale industries, by providing financial assistance and a management service. The Corporation is already negotiating with other prospective investors with regard to joint participation in major industrial projects. The table below sets out projects in which it will invest in the first and second years of the Plan. The Corporation has also indicated its desire to invest in other projects, e.g. the Broderick Falls pulp and paper mill.

POSSIBLE ICDC PROJECTS IN THE FIRST TWO YEARS OF THE PLAN

Table 10.7

	Total Investment K£'000	Total Equity K£'000	ICDC's Equity K£'000	ICDC's Equity as Percentage of total Equity
Eldoret Textile Mill	3,425	1,000	250	25
Flamingo Textile Industries	3,653	1,450	125	9
Venus Easterbrook (EA) Ltd.	54	10	4	40
Firestone EA (1969) Ltd.	5,143	2,071	300	14
Ready-mixed Concrete	93	43	21	49
Kenbrew Ltd.	500	100	48	48
	12,868	4,674	748	16

10.39. The Central Government will allocate some K£1.2 million to ICDC during the Plan period for major industrial projects. In its capacity as promoter of small scale rural industries the ICDC will seek finance from abroad.

Industrial Estates

10.40. A major industrial programme under the auspices of the I.C.D.C. will be the development of Industrial Estates. It had been proposed to establish five industrial estates, located at Nairobi, Mombasa, Nakuru, Kisumu and Eldoret, during the 1966-70 Development Plan period, but this programme proved to be too ambitious and it was decided to restrict efforts to the first phase of the Nairobi Industrial Estate in order to gain experience for the overall programme. During the 1970-74 Plan, industrial estates will be established at Mombasa, Nakuru, Kisumu and Eldoret and the second phase of the Nairobi Industrial Estate will be carried out.

10.41. The main purpose of the industrial estates scheme is to provide an opportunity for Africans to take part in the industrial expansion. The programme entails the construction of factory buildings which are rented to African enterpreneurs at reasonable rents with administrative and technical services blocks attached to them. Machinery and equipment are provided to entrepreneurs on a 100 per cent loan basis and the loans are paid back over periods ranging between 8 and 10 years at a rate of interest of 8 per cent. Working capital has to be provided by the entrepreneurs themselves. Technical and management assistance is given in the initial stages as well as in the day to day running of business. Technical assistance is provided free of cost for the selection of machinery, technical operation and management.

10.42. The construction of the Nakuru Industrial Estate will commence in 1970/71 and by the end of 1972/73 the 15 unit industrial estate is expected to be in operation: a site for this industrial estate has already been made available on Government land. The construction of the Mombasa Industrial Estate, which will cater for the establishment of 25 factory units and which is estimated to cost K£610,000, will start in 1971/72 and will be in full operation by the end of 1973/74. The establishment of the Kisumu and Eldoret industrial estates will commence in 1972/73 and 1973/74 respectively. Table 10.8 shows the financial outlays for the Industrial Estates Scheme which will be financed through the Development Budget.

ICDC OUTLAYS ON INDUSTRIAL ESTATES DEVELOPMENT

Table 10.8 *K£'000*

Industrial Estate	1969/70	1970/71	1971/72	1972/73	1974/75	Total
Nairobi (2nd phase)	105	200	225	—	—	530
Nakuru	—	105	200	200	—	505
Mombasa	—	—	150	210	250	610
Kisumu	—	—	—	105	200	305
Eldoret	—	—	—	—	105	105
Grants to Kenya Industrial Estates Ltd.	22	25	30	35	40	152
TOTAL	127	330	605	550	595	2,207

10.43. The Nairobi Industrial Estate will establish a technical service centre which will design tools and dies. It will operate in close co-operation with the Industrial Research Centre which will be established during the Plan period.

Small Industrial Loan Scheme and Rural Industrialization

10.44. The ICDC will be required to undertake an important part in a programme to promote rural industries such as saw milling, wood working, shoe making, leather processing, clothing, vehicle repairs and the manufacture of elementary building materials. The Corporation has already carried out a survey of Nyeri District to identify potential industries and it will undertake similar surveys in other districts. Where necessary, the ICDC will make available loans to entrepreneurs taking up these opportunities. It is believed that as the various agricultural programmes based on cash crops are implemented, additional incomes will be created, leading to a substantial increase in effective demand. The Corporation believes that some of this demand can be met by the rural industries which it intends to promote.

10.45. The ICDC role will consist mainly of providing industrial loans and management guidance for this programme. One of the main tests for the Corporation will be to overcome the difficulty Africans face in obtaining capital to start and operate a business, and to this end, allocations amounting to K£550,000 have been made to a revolving loan fund for small industrialists, of which K£120,000 will be made available to small entrepreneurs in rural areas for purchasing machinery and equipment. Further financial assistance to Africans will be made through the ICDC Investment Company which has been formed with the specific purpose of enabling Africans to acquire shares in industrial concerns which require local participation. The Company has already invested in a number of firms and an aggregate of K£300,000 has been allocated for these investments during the Plan period.

Development Finance Company of Kenya

10.46. The Kenya Government, through the ICDC, the Commonwealth Development Corporation, the Netherlands Overseas Finance Company and the German Development Corporation hold equal shares in the Development Finance Company of Kenya (DFCK) which has invested or has committed itself to invest a sum of K£2.9 million in 24 projects. Sugar production, textile manufacture, and hotels each account for approximately 20 per cent of the total, while the other 40 per cent are in such industrial activities as flour milling, manufacture of metal products, food processing, timber and wood processing, vehicle assembly, engineering and insurance.

10.47. Although the Company has mainly directed its investments to new commercially viable projects, it has also financed projects which have been considered profitable only in the long run. The Company does not invest in infrastructure projects such as schools, roads and hospitals, nor does it provide short term loans. The minimum company's investment in any one project is K£20,000 and the maximum K£300,000.

10.48. The DFCK proposes to increase its capital by inviting its partners to increase their contributions. As the company's investments are likely, by 1974, to exceed its authorized capital of K£4.0 million, it is proposed to raise the authorized capital of the company during the Plan. The Government has allocated K£50,000 per annum to increase its participation in the company and a total of K£250,000 to meet loan repayments for the company to a Bank consortium. This means that Government has allocated a total of K£500,000 for DFCK during the Plan.

10.49. Besides finance from ICDC and DFCK, funds will also be available from the East African Development Bank which is required under the East African Treaty to allocate $22\frac{1}{2}$ per cent of its resources to Kenya. Funds for major projects can also be made available from the African Development Bank, the International Finance Corporation and the World Bank (which has recently established a body for the financing of small-scale industry). Other external sources of finance have been provided by bilateral agreements, e.g. from the Commonwealth Development Corporation and the German Development Corporation. A number of foreign countries and lending institutions are prepared to provide long term loan finance for industrial projects.

10.50. The Government is therefore able to call upon sources of finance over and above that which it is able to make available itself to the ICDC and the DFCK. By use of the influence Government commands, additional funds will be made available for the industrialization process which would otherwise have to be found by the private sector or without which projects might not get started at all.

10.51. In the absence of detailed financing plans for the industrial investment programme, it is impossible to indicate with any precision the financing arrangements that might be used in individual industries, but Table 10.9 shows, very approximately, the sources of finance as between the public and private sectors.

10.52. "Public" sources of funds mean all investment funds which are channelled to projects via Government, local authorities, statutory boards and corporations and other para-statal bodies, in the form of equity, loans or income notes. The purpose of this table is to show the degree of Government financial involvement in industrial expansion. The column "public" therefore, also covers funds of any origin which involve Governmental loan guarantees, representing a contingent obligation by the Government. The sectoral allocations shown in the table are, however, only indicative and do not represent a Government commitment to any single project or sector.

Industrial Protection

10.53. The Government will pay particular attention to the protection of both new and existing industries, within the scope afforded by its obligations under GATT, the Treaty for East African Co-operation, and the Agreement for Association with E.E.C. Industrial protection may be afforded through import tariffs on goods arising outside the E.A. Common Market, by use of import licensing and quantitative restrictions, and by drawbacks of duty on imported industrial raw materials. At the national level, cases of industrial protection are dealt with by the Ministry of Commerce and Industry, in close consultation with other relevant economic ministries through the Industrial Protection Committee whose functions are set down in Chapter 4. At the East African level there are facilities for consultation to ensure harmonization of tariff policies and procedures in accordance with the Treaty.

SOURCE OF INVESTMENT FUNDS FOR MANUFACTURING EXPANSION

Table 10.9 K£'000

Industry	Private	"Public"	Total
Meat processing	200	1,000	1,200
Dairy products	1,500	—	1,500
Canning of fruit and vegetables	1,000	100	1,100
Grain milling	1,300	100	1,400
Bakery products	500	50	550
Sugar	4,500	4,000	8,500
Confectionery	50	—	50
Miscellaneous food	1,450	50	1,500
Total Food Processing	10,500	5,300	15,800
Beverages and tobacco	4,500	500	5,000
Cotton ginning	100	—	100
Knitting mills	300	—	300
Cordage, rope and twine	—	—	—
Spinning and weaving	7,500	2,000	9,500
Total Textiles	7,900	2,000	9,900
Footwear	300	—	300
Clothing and made up textiles	575	25	600
Total Footwear and Clothing	875	25	900
Wood products	1,200	500	1,700
Furniture and fixtures	900	100	1,000
Pulp and paper	9,000	3,500	12,500
Publishing and printing	1,450	350	1,800
Leather and fur	110	90	200
Rubber	5,500	500	6,000
Chemicals and petroleum	10,100	1,000	11,100
Metal products	2,000	500	2,500
Non-metallic minerals	3,700	150	3,850
Machinery	2,675	125	2,800
Transport equipment	3,500	500	4,000
Miscellaneous	250	—	250
TOTAL MANUFACTURING	64,160	15,140	79,300

10.54. In considering requests for industrial protection, the Government will pay regard, not only to profitability of the individual enterprise, but also its costs and benefits to the economy as a whole, e.g. value added in relation to loss of revenue to the Exchequer, additional employment created, possible effects on the balance of payments. Protection facilities will be continuously reviewed.

10.55. In suitable cases the Government will grant undertakings "Approved Status" under the Foreign Investments Protection Act 1964 which states:—

7. "Notwithstanding the provisions of any other law for the time being in force, the holder of a certificate may, in respect of the approved enterprise to which such certificate relates, transfer out of Kenya in the approved foreign currency and at the prevailing official exchange rate—

(*a*) the profits, after taxation, of his investment of foreign assets;

(*b*) the approved proportion of the net proceeds of sale of all or any part of the approved enterprise, either in liquidation or as a going concern; and

(*c*) the principal and interest of any loan specified in the certificate.

8. No approved enterprise or any property belonging thereto shall be compulsorily taken possession of, and no interest in or right over such enterprise or property shall be compulsorily acquired, except in accordance with the provisions concerning compulsory taking of possession and acquisition and the payment of full and prompt payment of compensation contained in section 19 of the constitution of Kenya and reproduced in the Schedule to this Act."

10.56. The rate of tax on company profits is 40 per cent, and there is an investment allowance of 20 per cent of the cost of new industrial buildings, machinery and fixed equipment. Taken together with the usual depreciation allowance, an industrialist can write-off 120 per cent of his investment against taxable income over a period of years. In addition, further incentives in the form of refunds of customs duties are available to companies using imported raw materials. These refunds are normally granted to ensure that local production can compete with imports of finished goods and in foreign markets. Normally, duty refunds for the home market are granted only for a limited period, and in some cases according to a sliding scale. This system has been found particularly useful for new industries in their first years of operation.

Industrial Training and Extention Services

10.57. Greater African participation in the management and operation of industrial enterprises will require increased technical training facilities during the Plan period. During the first Plan, it became apparent that there are two broad categories of personnel which require separate training schemes, namely industrial technicians and skilled workers on the one hand, and industrial managers and entrepreneurs on the other. For both types of training there is already a wide range of institutions sponsored by different Government departments and voluntary organizations, but with the considerable increase necessary in the number of skilled technicians and managers to achieve the targets of this Plan, Government recognizes the need to expand the training programmes already in existence.

10.58. For the technicians and skilled workers, "on-the-job" training and "day release courses" at the Kenya Polytechnic are now available; but although such training schemes exist, efforts must be made to see that more people are able to take advantage of them. This can be done partly by the private sector expanding existing schemes and by ensuring that new projects include in advance programmes for training Africans.

10.59. The training of African entrepreneurs and industrial managers has even more urgency. Creating entrepreneurs is a difficult task but those who have the potential must be trained and assisted in setting up new business.

In this task, the Kenya Industrial Training Institute (K.I.T.I.), the Management Training and Advisory Centre, the National Industrial Vocational Training Centre, and the Industrial and Commercial Development Corporation through the Industrial Estate Scheme, will all have important parts to play and all must expand their efforts.

10.60. The Government plans to expand K.I.T.I. by providing further training in forging and casting; a new foundry will enable training to be given in casting various machinery spare parts. The Japanese Government has also agreed to help with the expansion of the motor vehicle repair workshop at this training centre, which will result in more African repair workshops and ease the urgent need for such services. In addition, K.I.T.I. will establish (in co-operation with the Management Training and Advisory Centre) an extension service to assist ex-students and small industrialists in technical and managerial matters. Many small industrialists cannot spare the time to attend courses in Nairobi or Nakuru, and therefore industrial courses will be started at other places. Government will provide K£60,000 for the expansion of K.I.T.I. services.

10.61. The Industrial and Commercial Development Corporation will continue to assist in industrial training not only through the comprehensive industrial estates scheme but also through the follow-up by extension officers. In addition, small industrialists will also benefit from on-the-spot advice from the Provincial and District Trade Officers.

Industrial Research

10.62. The Government recognizes the importance of industrial research in the securing of rapid development. In the past, valuable services have been rendered by the East African Industrial Research Organization, and Government will continue its support to this organization, but increased attention will be given to the Material Testing and Control Laboratory to supplement the services of the EAIRO. Recent experience has shown an increased need for material testing in connexion with industrial promotion and protection.

10.63. The Government will also set up a National Scientific and Research Council with members from various departments and national institutions as well as from important private industries. It is proposed that the council should have an industrial research committee which will meet regularly to discuss, assess, and co-ordinate industrial research projects. It will also identify and select new ones and recommend them for implementation to the relevant institutions. The council will be given funds, thus enabling it to sponsor especially worthwhile projects.

The Location of Industry

10.64. The first section of this chapter indicated that an important part of Government's industrialization strategy was to widen the geographical dispersal of the benefits of industrialization. In the past, industrial growth has mostly occurred in Nairobi and Mombasa because these towns constituted the main markets for industrial goods. In addition, the early status of Nairobi and Mombasa as administrative and commercial centres with developed infrastructure constituted a secondary, but important, localization factor. At a later stage, the industrial development in Nairobi and Mombasa became self-generating in that it provided markets not only for consumer goods, but also for industrial goods and services. This favoured a further concentration of industries producing goods and services for manufacturing in Nairobi and Mombasa. In 1967, no less than 60 per cent of the labour force engaged in large-scale manufacturing found employment in Nairobi and Mombasa.

10.65. Industrialization in urban areas outside Nairobi and Mombasa has been based primarily on the processing of agricultural, livestock and forest produce, both for the domestic market and for export. Towns such as Nakuru, Eldoret and Kisumu grew up initially as distributive centres but constituted a rational choice for the location of industries based on such raw materials. In addition, these urban centres developed infrastructural facilities, to serve Government administration and the distributive trade, which also could be utilized by industry. During the last decade, a considerable diversification of industrial activity has taken place in these non-metropolitan towns, a development which has been stimulated by Government policies. Such towns offered employment to some 24 per cent of the large-scale industrial labour force in 1967.

10.66. Larger industries with a rural location accounted in 1967 for only some 16 per cent of employment in manufacturing, excluding the small-scale rural workshops. With a few exceptions, these industries are operating in fields where economic and/or technical considerations favour a location close to raw materials such as sugar, sisal and saw-milling.

10.67. Table 10.10 below shows the 1967 structure of industry in terms of urban and rural employment on the individual industry level. It can be seen from the table that, on this level of aggregation, the rural share of industry exceeded 25 per cent in only four cases and by 10 per cent only in five cases. The metropolitan dominance in the urban sector is also well reflected in the table; employment in Nairobi and Mombasa exceeded employment in other urban areas in all sectors except food and wood processing.

10.68. It is the Government's intention now to locate industries to a great extent in urban areas outside Nairobi and Mombasa. An important element in this policy has been the selection of a number of major urban growth centres. The list of designated centres set out in Chapter 3 includes the main administrative towns of Eldoret, Embu, Kakamega, Kisumu, Nakuru, Nyeri and Thika. The centres have a developed service infrastructure and are strategically located to form major administrative, commercial and industrial centres. As mentioned earlier, four towns outside Nairobi have been designated as locations for Government-sponsored industrial estates—Eldoret, Kisumu, Nakuru and Mombasa.

URBAN AND RURAL INDUSTRIAL EMPLOYMENT IN URBAN AND LARGE SCALE INDUSTRY IN 1967

Table 10.10 *Per cent*

	URBAN					
	Nairobi	Mombasa	Other	Total	Rural	Total
Food processing	24·6	8·7	40·1	73·4	26·6	100·0
Beverages industries	78·1	15·8	6·1	100·0	0·0	100·0
Tobacco manufacturing	86·7	0·0	11·2	97·9	2·1	100·0
Textiles	20·2	18·8	25·4	64·4	35·6	100·0
Footwear and clothing	37·4	17·9	13·6	68·9	31·1	100·0
Wood except furniture	15·4	3·4	31·2	50·0	50·0	100·0
Furniture and fixtures	65·8	16·4	13·5	95·7	4·3	100·0
Paper and paper products	42·0	51·1	6·9	100·0	0·0	100·0
Printing and publishing	80·8	7·3	10·6	98·7	1·3	100·0
Leather and fur products	65·1	0·0	34·9	100·0	0·0	100·0
Rubber manufactures	91·5	2·6	5·9	100·0	0·0	100·0
Chemicals	47·9	11·5	32·2	91·6	8·4	100·0
Petroleum	0·0	100·0	0·0	100·0	0·0	100·0
Non-metallic minerals	28·8	50·9	8·4	88·1	11·9	100·0
Metal products	28·6	47·1	24·3	100·0	0·0	100·0
Basic metals industries	73·9	26·1	0·0	100·0	0·0	100·0
Non-electrical machinery	71·8	7·2	19·3	98·3	1·7	100·0
Electric machinery	77·5	3·2	18·7	99·4	0·6	100·0
Transport equipment	54·3	20·7	22·6	97·6	2·4	100·0
Micsellaneous	73·3	12·4	4·8	90·5	9·5	100·0
TOTAL	43·5	16·4	23·6	83·5	16·5	100·0

10.69. However, in addition to the manufacturing employment in rural areas shown in Table 10.10, a sample survey of non-agricultural economic activities in rural areas in 1967 indicated that more than 40,000 persons were employed in small enterprises in the countryside. This employment is expected to increase by about 10,000 workers by 1974, although it must be emphasized that this was only a sample survey and that the people covered by it were on average effectively employed only a few days a week to judge from the very low average product per worker, compared to the average for large-scale manufacturing.

10.70. Most of the planned growth of the manufacturing industry will come from large-scale manufacturing. Urban industries will continue to have the major share in absolute terms of the growth envisaged in the Plan, but the growth of industries located in rural areas, measured in terms of employment, will be almost twice that of urban industries. Thus, total industrial employment as shown in Table 10.6 is projected to grow at 3.7 per cent per annum while rural industrial employment will grow by more than 6 per cent.

10.71. Although most of the industrial expansion will inevitably take place in the major growth centres, the Government's rural development programme will endeavour to stimulate the more rapid growth of the small-scale rural industries. Government will investigate particular projects suitable for promotion, and priority will be given by the ICDC and KITI to the stimulation of both industrial and commercial activities undertaken by entrepreneurs at the village level. Finally, the Provincial and District Trade Officers in these areas will be strengthened as required to take their part in the integrated programme.

10.72. The Government has just received a report by a consulting firm on the "Development of Cottage Industries Based on Sisal, Wood and Metal Working, and Leather". The relevant Ministries and departments are examining the recommendations included in this report, which concludes that there is scope for improved design in furniture manufacturing in the rural areas and also for instruction in the use of simple mechanical aids such as universal wood-working machines. The report also suggests that there is a potential for establishing manufacturing in the rural areas and small towns of the following products: wheelbarrows, simple household equipment, beehives, blacksmithing in combination with agricultural machinery repair, agricultural hand tools and boat building, tanning and leather products and handicrafts. The Government has provided a sum of K£284,000 for the creation of rural industrial centres during the new Plan, over and above K£52,000 for small-scale and cottage industries and loans issued through ICDC from the Small Industrial Loans Fund.

Government Expenditure on Industrial Programmes

DEVELOPMENT EXPENDITURE—INDUSTRY

Table 10.11 — *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Industrial Survey and Planning	10	18	18	18	18	82
Kenya Industrial Training Institute	20	10	10	10	10	60
Rural Industrialisation Programme	—	66	70	73	75	284
Miscellaneous Industrial Loans	172	150	175	200	225	922
INDUSTRIAL AND COMMERCIAL DEVELOPMENT CORPORATION						
Investment in major industrial projects ..	187	250	250	250	250	1,187
Kenya Industrial Estate						
(*a*) K.F.W. Loans	105	305	575	515	555	2,055
(*b*) Grants to K.I.E. Ltd.	22	25	30	35	40	152
Small scale and cottage industries ..	—	10	12	15	15	52
ICDC Investment Company (Loans) ..	50	50	70	80	50	300
Grants for Small Industrial Loans Revolving Funds	90	100	110	120	130	550
Total Industrial and Commercial Development Corporation	454	740	1,047	1,015	1,040	4,296
DEVELOPMENT FINANCE COMPANY OF KENYA						
New and Additional Investment (including Income notes)	50	50	50	50	50	250
Bank Consortium Loan Payments	50	50	50	50	50	250
Total Development Finance Co. of Kenya ..	100	100	100	100	100	500
TOTAL	756	1,084	1,420	1,416	1,468	6,144

10.73. The programmes described in this section will require a significant increase in Government's total financial allocations to the industrial sector. In spite of the fact that most of the investment required for industrial expansion will be sought from the private sector, the increased finance necessary for the proposed ICDC and DFCK programmes, together with the special programmes of rural industrialization centres, the Kenya Industrial Training Institute and industrial loans to be provided directly by Government (rather than via ICDC or DFCK) will require a total allocation of K£6.1 million. The details of this are summarized in Table 10.11.

Manufacturing Plans and Projections by Industry

Food Processing Industries

10.74. The food processing industries constitute the second largest manufacturing group (after the motor repair group) with a gross product of K£6.2 millions and an output of K£36.6 million in 1967. Of equal importance, these industries purchased total inputs costing K£30 million, of which as much as K£28 millions were domestically produced, mainly by agriculture. Employment in the group made up about 18 per cent of total manufacturing employment.

10.75. The Plan projections for this group shown in Table 10.1 are based on assumptions that domestic use of manufactured food products will grow by about 7.5 per cent per annum; secondly that there will be some import substitution; and thirdly that export of food products will grow at a rate of between 4 per cent and 5 per cent per annum.

10.76. Gross product is expected to grow at 8.1 per cent which is higher than the output growth of 7.4 per cent because the recovery rates of industries, such as sugar, pineapple and meat processing, are expected to improve during the Plan period. The "new" investment required to take care of this expansion is expected to be about K£16 millions, implying an incremental capital output ratio of 3.5.

10.77. *Meat Processing.*—The Government has reorganized the management of the Kenya Meat Commission which has resulted in a return to profitability in 1968 after a loss had been incurred in the previous year. Government will now take firmer steps to control the sale of slaughter cattle to butchers other than KMC in order to improve further KMC's position in the industry. Increased supplies of meat not subject to rigorous standards of hygiene and sanitation carry implications not only for KMC's profitability but also for public health. Accordingly, the throughput in KMC is expected to rise faster than the production of cattle in the country as a whole, because KMC will take a larger proportion of the cattle available. The "new" investment for the industry is estimated at K£1.2 million, mostly underwritten by the Government in the form of loan guarantees.

10.78. In the *Dairy Products* industry the growth of gross product and output have both been projected at 6 per cent. Milk throughput will increase and there will also be increased emphasis on higher quality products. A new plant has recently been opened to preserve milk, and it is expected that this will increase total demand for whole milk. Investment of K£1.5 million will be required to increase capacity and upgrade products.

10.79. *The Fruit and Vegetable Canning Industry* is dominated by the canning of pineapples. The largest producer of pineapples, Kenya Canners Ltd., has been acquired by an American Company, California Packers, who own the Del Monte label. This company proposes to undertake a K£5 million investment programme for factory modernization and expansion, and planting of pineapples and other crops on its own estates. These developments are planned to provide 70,000 tons of pineapples for canning by 1974. Apart from Kenya Canners' plans to process 4,500 tons of raw passion fruit by 1974, small extraction plants will be established in various parts of the country to diversify the production areas and minimize the effect of disease.

10.80. An expansion of the vegetable dehydrating industry will depend on the trend of world market prices and the standards of quality and efficiency which can be attained by Kenya processors. A pilot project for vegetable dehydration at Naivasha has provided valuable experience, but an uneven quantity and quality of vegetables from settlement farmers led to factory difficulties which were further aggravated by transport problems and falling prices. The factory is temporarily closed but as soon as an even flow of high quality vegetables from farmers is assured, the project should be able to resume profitable operation. The Government envisages that about K£100,000 of "public" investment will be needed for this project during the Plan period.

10.81. *Grain Milling* is expected to grow at about 5 per cent. Maize milling and processing may grow faster than this as consumers turn to sifted maize products which can only be produced in large-scale modern mills. Wheat milling may grow more slowly for, although local demand may expand by about 6 per cent, the present policy of exporting milled flour will be halted once local wheat supply is brought into balance with Kenya / Uganda aggregate demand.

10.82. The feasibility of establishing new industries for the manufacture of maize starch, glucose, maize oil and maize based breakfast cereals is under consideration. Developments in wheat flour processing are expected to include the rationalization of the baking industry, the expansion of pasta production based on domestically grown duram wheat, and the expansion of biscuit production.

10.83. Maize and wheat milling capacity is expected to be adequate during the next few years but towards the end of the Plan period some increase may be required. In addition, it is planned to treble the capacity of the

Mwea rice mill in 1970, and to install a parboiling plant. To take care of this expansion, new investment will be higher as old milling machinery is replaced. Some K£100,000 of "public" investment in the form of ICDC loans will be needed to encourage small-scale maize millers.

10.84. *Sugar production* has been expanding rapidly in recent years (from 35,333 metric tons in 1964 to 81,439 metric tons in 1968) and will continue to expand during the Plan period, so that the country will be nearly self-sufficient by 1974. The difference between the projected growth of gross product in this industry, 15 per cent, and of the growth of output, 10.9 per cent, is explained by the fact that recovery rates in 1967 were very low. As the backlog of over-age cane (discussed in Chapter 8) is worked down and younger cane is processed, the recovery rates per ton of cane will improve. It is also confidently expected that technical and transport difficulties which have marred the running of new factories will be overcome, leading to a further improvement in cane yields.

10.85. Investment over the period 1967-73, which applies only to the factory operations and does not include money for sugar roads or plantation development, is estimated at K£8.5 million, of which about K£4 million will be "public" investment. But much of this investment has already taken place at Chemelil in 1967 and 1968, and little new investment is envisaged until the end of the Plan period when a further K£3 millions will be spent on a new factory at Mumias, if the current feasibility study is favourable. However, although the investment in Mumias will probably take place during the Plan, it is assumed that production will not begin until 1975. This results in a very high marginal capital-output ratio during the Plan period of about 8.8.

10.86. It is expected that the miscellaneous food group which consists largely of margarine, cashew nuts and fish processing, will grow at a rate of 10.6 per cent. The cashew nut industry at present processes only about 10 per cent of the country's normal crop of 12,000 tons, the rest being exported raw to India. The Government is now experimenting with different processes in order to find one that will provide greater economic benefit than afforded by the export of raw nuts. If the outcome is successful, the Government will establish one (or possibly two) factories in the Coast Province, which will allow for the recovery of the important by-products from cashew nut processing, such as cashew nut shell liquid which is, among other things, used as an ingredient in paints. "Public" investment may be of the order of K£50,000.

10.87. The Government is also planning to expand the fishing industry, both at the coast and on lakes Victoria, Baringo and Rudolf. At Mombasa, it is intended to build cold storage and harbour facilities to process the catch from fleets which fish along the coast. Inland filleting and freezing facilities will be expanded at Lake Victoria and Lake Baringo, and a fish drying plant will be established at Lake Rudolf. Investment of about K£1.5 millions is envisaged for all these developments but until further feasibility studies have been carried out this figure is provisional. However, it is confidently expected that there will be substantial scope for expansion of present industries and new industries in this group, as reflected by the projected growth of 10.6 per cent per year.

10.88. In the *Beverages and Tobacco* industries, a rapid growth in beer and soft drinks production has recently been accompanied by slower growth in tobacco manufacturing. Both sub-groups have been faced with declining export markets, since Tanzania and Uganda have built up their own industry and exports to these countries may be expected to fall further. But demand in Kenya is growing rapidly to take the place of these lost markets, and growth is projected at 6 per cent per year.

10.89. Most of the projected new investment of K£5 millions in this group is expected to be self-financed but the Government, through ICDC, has plans to initiate a joint venture with the breweries to produce traditional "Chibuku" type beers on a commercial basis in order to provide people with an hygienic, good tasting and low-priced beer. "Public" investment in this project may amount to K£500,000. These developments will probably lead to an extra 1,000 jobs by 1974.

Textiles

10.90. The expansion of the textile industry since independence has been exceedingly fast. Value added grew by an average of 17 per cent per year and output by 25 per cent per year between 1963 and 1967. However, almost the whole of the 1968 increase was attributable to the growth in production of cloth while a rapid expansion of cloth manufacturing capacity also occurred in Uganda and Tanzania. A problem of over-production of certain kinds of cloth now exists within East Africa, since nearly all producers are concentrating on the manufacture of lower qualities. There is as yet little production of better quality cloths which require a higher level of technology and skills. Most textile mills in East Africa have been designed to supply the East African market, and the most economic development of the industry requires a considerable exchange of textiles between the three countries. Only in this way can each mill concentrate on a limited range of products and get the long production runs necessary to make textiles cheaper. Until the East African Treaty came into operation, each country was taking measures which restricted the imports of textiles from its neighbours, but since the Treaty came into force quantitative restrictions have been abolished and there is a move towards harmonized protection of the textile industries in the three countries against imports from overseas. Kenya exports of certain textiles are still hampered by transfer taxes in Uganda and Tanzania, but the Kenya mills are diversifying their production, so as to be able to capture a greater share of the domestic market.

10.91. The long-term scope for further expansion is still considerable in view of the import substitution possibilities and the growing home market demand. The projected average growth rates of 15 per cent for value added and 12.6 per cent for output are therefore attainable targets. The industry will continue to "deepen" its production processes, in the sense that it will produce semi-manufactures which previously were imported for processing simultaneously with an increase in final output. This process is illustrated by the expansion plans of the rayon mill at Thika, which is in the process of constructing a weaving section which will supply hitherto imported loom-state cloth. Other mills are expanding their spinning sections so as to reduce imports of yarn.

10.92. New mills will be built, to produce high quality cotton and cotton-polyester poplins at Eldoret and Nakuru which will, from the outset, be fully integrated from spinning to finishing. These two projects alone account for a considerable share of the total K£9.5 million of new investment expected in the spinning and weaving industry, with the Government participating to the extent of about K£2 million.

10.93. The projections for the *weaving and spinning* sector of the industry, indicate a medium term growth of about 24 per cent for gross product and 20 per cent growth per annum for output. The *knitting industry* is expected to grow by about the same rate as domestic demand. Some import substitution will take place in the case of goods coming from overseas, but imports from Uganda and Tanzania are likely to increase rapidly as these countries build up their own production of quality goods. The nil-growth projection for the *cordage, rope and twine sector* reflects an assumption that there will be increased competition from synthetic materials. There is a trend towards increased use of synthetics in packaging materials and it is expected that the Kenya producers, of which East African Bag and Cordage is the largest, will need to adjust to this structural change by using new and different raw materials and processing techniques.

Footwear and Clothing

10.94. A decline in shoe exports to Uganda and Tanzania, which followed the development of domestic manufacturing capacity in those countries, caused a check to the advance of shoe production, but the effects of these market losses are now being overcome. Production of shoes rose sharply in 1968 and the growth estimate for 1967-74 of 7 per cent is based on the assumption that domestic use will grow by about the same rate as incomes.

10.95. The clothing industry has been expanding very rapidly in recent years but there is still scope for further expansion. On the basis of past experience, domestic use is expected to grow by at least 6 per cent per year, and while the scope for import substitution is now more limited, there is no doubt that a 8 per cent growth rate for output and value added is well within reach. It should also be mentioned that exports were equal to two thirds of imports in 1967 and by 1974 they should well exceed imports.

10.96. This is a labour-intensive industry which should expand with a comparatively small investment. But the development of skills and designs in the production of clothes, and in marketing of the products is as important as the provision of capital. This is a field where Government can and will play a role in training people in cutting and tailoring and in the business methods which will help to make a success of many small enterprises. Public investment through ICDC may amount to K£25,000 during the Plan period.

Wood Products

10.97. The sawn timber industry has largely recovered from the depression which characterized it in the years following 1963. With the upsurge in building activity, the output of the industry has been growing rapidly and is expected to grow in the future at over 8 per cent. A number of small saw mills will be developed into larger units as timber supplies increase. The plantation units of the Forestry Department have not yet reached maximum productivity and a number are at the stage where they only produce small quantities of thinnings. New sawmillers who will be licensed in such areas will only need a limited amount of capital to start and they can gain experience before they expand to deal with the greatly increased volumes that become available when plantations reach maturity. Sawmilling is thus an industry which offers great scope for Africanization, and the Government, through ICDC, will provide the necessary loan facilities.

10.98. However, most of the existing sawmills are using obsolete machinery and production techniques, and there has been some reluctance on the part of non-citizen entrepreneurs to invest in necessary modernization. This has resulted in wasteful use of timber and low labour productivity in the industry as a whole. During the Plan period, these problems will be tackled by improving methods of wood and timber utilization, by a reduction of waste, as well as by investment in new equipment. As a result, productivity is expected to increase by about 3.5 per cent per annum while employment is expected to grow by 4 per cent.

10.99. Two plywood factories have been established recently at Elgeyo and Elburgon, in the latter case with DFCK finance. It is intended to licence a third factory which would draw supplies from South Mount Elgon. The licence area will provide podo as tea chest material and hardwoods for veneers for export. It is hoped that, later, the exports will be mainly in the form of plywood faced with decorative veneers, rather than veneers as such. There are also plans to set up a pencil factory using pencil slats which are at present exported and the Government is examining the possibility of manufacturing wood based boards and wood-wool cement boards.

10.100. The Government has started a Forest Industrial Training Centre with logging operations at Maji Mazuri and Bahati and a sawmill and prefabricated housing factory at Nakuru. This centre has been established with a view to training sawmillers in the running of efficient sawmills. The Government contribution to investment in this sector through DFCK and ICDC is likely to be at least K£500,000.

Furniture and Fixtures

10.101. This industry should now grow at a faster rate than during recent years, and a growth rate of at least 9 per cent per year is forecast. Most of this expansion should take place in the manufacture of low-cost furniture for existing factories are being modernized and better equipped, while there is scope for the establishment of new factories as well. Potentially, the industry could expand much faster than 9 per cent per annum if the industry could export a greater proportion of production. There is a market in the Eastern Africa region for furniture where Kenya manufacturers could compete effectively.

10.102. The furniture industry is expected to require an investment for expansion of at least K£1 million for the period 1967-74 if a 9 per cent per annum expansion is to be achieved. The Government assists Africans who want to establish themselves in this industry, by training programmes and by financial assistance through the ICDC, which will make available K£100,000 for this purpose. The furniture industry in particular lends itself to comparatively small scale and local development.

Pulp, Paper and Products

10.103. Progress in the establishment of a pulp and paper factory at Broderick Falls has been slow, in spite of strenuous efforts from the Government's side. To some extent, the delays have been unavoidable because of the time required to negotiate satisfactory financial and managerial arrangements for this very large project. On present indications, the mill is likely to cost at least K£12.5 million of which about K£3.5 million will be in the form of Government loans and equity. The factory is designed to produce about 50,000 tons of kraft and "cultural" paper each year, of which about half will consist of kraft paper of different kinds for the packaging industry, such as cement and sugar sacks, paper bags, corrugated cartons.

10.104. The competitiveness on the kraft side is essential because a considerable share of the output of packaging will be exported directly or indirectly in competition with imports from Europe and North America. The pulp and paper mill at Broderick Falls must, therefore, be capable of supplying the packaging industry with kraft paper at international prices and quality. The packaging industry will supply Kenya exporters, especially those of agricultural products, but also those of manufactures like cement, and packaging materials must be so priced that they do not increase the cost of Kenya exports in overseas markets.

10.105. When the factory starts operations, in the early 'seventies, it will employ more than 1,000 workers and contribute a gross product of about K£3 million per annum. In addition, the project will create considerable employment in the forests and the transport industry.

10.106. The success of the project hinges largely on the continued rapid development of the packaging industry. This sector has been expanding very rapidly both at home and in neighbouring countries, but the home market is now subject to increasing competition from other packaging products and methods. The output projection is based on the assumption that domestic industry will replace the bulk of imports and that there will, at the same time, be a moderate growth of exports. The packaging industry has had some successes in the Indian Ocean area, the Persian Gulf, Malawi and Zambia, although competition from international supplies is very intense. Provided that the industry can be supplied with raw materials at international prices, it should continue to expand.

Printing and Publishing

10.107. With rapidly increasing literacy and rising living standards, the printing and publishing industry has experienced an expanding market. The investment requirements of a modern printing industry are substantial, and new investment of about K£1.8 million will be required during the Plan period. The rapid implementation of the school programme, and of literacy programmes generally, will ensure a steadily rising market for textbooks produced and printed locally, and of newspapers and periodicals. The Government Press is being enlarged at a total cost of about K£197,000 during the Plan period.

Leather and Leather Products

10.108. After some years of stagnation, the leather and tanning industries now seem to be expanding. The leather industry had a very good year in 1968 with a production increase of nearly 17 per cent, reflecting rising exports and the higher level of demand from the domestic footwear industry. The Government sees the prospects of substantial growth in this sector and there is little doubt that the export of wet salted cow hides from the slaughterhouses could be replaced by exports of leather. A number of factors are in favour of such a development.

10.109. The Government is therefore investigating the feasibility of an expansion of the industry for export, by means of increased processing of hides, and at the same time a replacement of imported tanned leather by locally produced leather. In the meanwhile, commendable initiative has already been shown in the establishment of a kid-leather plant which will, to a considerable degree, absorb the local output. Sheepskins are already being treated and beginning to develop into a profitable export. ICDC is assisting local enterprise with respect to all kinds of fur and leather products, by making available expertise and investment of about K£90,000.

10.110. The target growth of 9 per cent per annum is realistic in the light of these developments. The investment required will be modest though employment in the industry is expected to double.

Rubber Manufactures

10.111. This industry has been expanding rapidly at about 23 per cent per year since independence, and an even faster growth rate is foreseen for the period 1967-74. The strongest impetus for the new expansion is the decision by Firestone Rubber Co. to go ahead with a motor vehicle tyre plant, which will produce about 80 per cent of all the tyres needed in the country and have capacity for exports as well.

10.112. The investment involved in this project alone is of the order of K£5 million, of which about K£0.5 million will be "public" equity. Other rubber manufacturers will continue to expand and diversify their production, resulting in total net investment for the industry of about K£6 million.

10.113. The rubber tyre project, and the expansion projections for the industry as a whole, are based on a normal growth assumption for domestic use of rubber products, consistent with the growth of vehicle population, a reduction in imports of such products which can be made locally, and an increase in exports. Initial production will be about 150,000 tyres a year rising to just over 200,000 after three years. The factory is being designed in such a way that capacity can be increased with relatively little additional cost, so that new export outlets can be easily satisfied. The factory will be a completely integrated modern tyre plant, with new equipment to produce best quality tyres to suit the exacting local conditions.

Chemicals and Petroleum Products

10.114. This group of industries experienced a very rapid growth between 1963 and 1967, due mainly to the establishment of the oil refinery at Mombasa at the end of 1963. Even excluding petroleum products, the chemicals industry has grown rapidly, by about 12.5 per cent per annum. The projected growth for the combined group is put at 8 per cent per annum. Total new investment is estimated at K£11 million, although this figure may be too low if feasibility studies of certain basic industrial chemicals show favourable results.

10.115. The chemical industry is based on pyrethrum and wattle bark extract, paints, soap, matches, oxygen, vegetable oils, toilet articles and pharmaceuticals. Although the future of the extracts of pyrethrum and wattle bark is uncertain, other products are expanding rapidly. In the case of wattle bark extract, a market sharing agreement in 1968 ended a period of price cutting among producing countries and exports increased by 30 per cent in value in a single year. The world demand has remained relatively stable for some years, the fall in demand from developed countries due to the use of synthetic substitutes being counter-balanced by higher demand from developing countries in line with the rising demand for shoes. Since the wattle tree takes between eight and ten years to mature, the industry depends heavily on settled market conditions. Pyrethrum extract is a substantial foreign exchange earner and has continued to do well in spite of the constant threat of synthetic substitutes. To remain competitive the industry has taken steps to increase the pyrethrin yield of flowers as discussed in Chapter 8.

10.116. Production of paints, soap and detergents is expected to grow at the same rate as local demand, since Tanzania and Uganda markets are now largely satisfied by production in those countries. But Kenya paints production should grow rapidly to match the high growth rate anticipated for the building industry.

10.117. The remaining chemicals required for domestic consumption must be imported, at a cost in 1968 of some K£12 million. Among these chemicals, there are a number of possibilities for viable import substitution, although for many products there is a problem of achieving an economic scale of production. Caustic soda may be made by the Broderick Falls pulp and paper mill for its own use but there will be a surplus of 3,000 tons of chlorine as a by-product. The Government will examine the possibility of using this surplus in other local industries.

10.118. Other studies will examine the viability of manufacture of glues, fertilizers, industrial alcohol from molasses produced by the sugar industry and sulphuric and hydrochloric acids. The prospects for extracting niobium as a by-product of the extraction of europium in Coast Province are being examined, and if the concentration is high enough to warrant going ahead, hydrochloric acid will be needed in fairly substantial quantities.

10.119. The case of fertilizers offers an object lesson on the limitation of local chemical production imposed by the size of the local market. A nitrogenous fertilizer project at Mombasa has had to be postponed because the local market for non-complex nitrogenous fertilizers grew more slowly than anticipated and demand shifted towards more complex fertilizers. At the same time, strong competition in the world market forced prices down, while the capital costs of the project escalated. Had the project been completed, heavy additional subsidies would have been required to make the product available to farmers at the price they now pay. There is no doubt that the potential local market for fertilizers in terms of nutrients is large and the Government is re-examining the prospects of establishing the fertilizer plant; but until the market is large enough to support an economic project it is not in the country's interest to forego the benefits of cheap imported fertilizers.

10.120. The same argument applies to a number of basic industrial chemicals which enjoy significant economies of scale. The present state of technology indicates that small chemical plants have high costs per unit of output. However, the Government believes that there are opportunities in this field which may have significant linkage effects and rapidly justify themselves, although they may not appear viable when examined in isolation. The whole field of chemicals will therefore be kept under constant review to assess opportunities for local production.

10.121. The oil refinery established at Mombasa in 1963 has resulted in a vigorous industry which continues to expand at a rapid rate. The plant is efficient and competitive by international standards and with exports of about K£11 millions in 1968, the industry is a considerable earner of foreign exchange, even allowing for the fact that all crude oil is imported.

10.122. The future expansion of the refinery will depend to a certain extent on export markets in Zambia and Tanzania. Zambia has recently announced that it intends to build a refinery to supply its own market. At present, Tanzania exports substantial quantities to Zambia and imports from Kenya. When the Zambian refinery comes into operation, Tanzania will be able to meet its requirement and Kenya will have to look elsewhere for export possibilities. However, there are other markets in Africa and the Indian Ocean area, and the domestic market for petroleum products is expected to grow by about 10 per cent per annum.

10.123. Further expansion of refinery capacity is expected to eliminate the bottlenecks in the present plant with relatively little new investment. There are also firm plans for a grease plant to commence production in 1970 with a capacity of 2,000 tons per annum and a lubricating oil plant starting in 1972 with a capacity of 60,000 tons per annum. Both of these will satisfy the local market as well as being able to export most of the products to neighbouring countries and to the Indian Ocean area. The 9 per cent per annum growth rate projected for the Plan period is realistic in the light of these plans, provided that the export markets in traditional products do not decline.

10.124. The new investment required for this expansion will be nearly K£8 million, with the lubrication oil plant alone accounting for about K£4 million. The industry is very capital-intensive; employment is not expected to increase by more than 350 persons because there is little choice of technology in oil refining. Its position as a major foreign exchange earner more than justifies the investment, since the saving in valuable foreign exchange can be directed towards other industrial projects of a more labour intensive nature.

Non-Metallic Minerals

10.125. This group includes cement, glass, pottery, china and earthenware, concrete and clay products. In 1967, the group employed nearly 2,100 persons and contributed a gross product of about K£2.5 millions. The most important industry in the group is the cement industry which is considered in more detail below. It is not easy to forecast the performance of the group as a whole during the Plan period, and much will depend on the country's success in developing new export markets for cement. Other important factors will include the import substitution of glass and pottery products, the level of production in Uganda and Tanzania, the extent of competition from plastics, and the level of activity in the construction industries. When these factors are taken into consideration, a growth rate of 6 per cent is forecast on a conservative estimate. The employment target for 1974 is about 2,600 and new investment will be about K£4 million, of which K£150,000 may be "public".

10.126. Production of cement has grown by about 9.6 per cent per annum between 1963 and 1968, while domestic use has grown by 9 per cent per annum, as can be seen from the following table.

CEMENT PRODUCTION AND UTILISATION, 1963–68

Table 10.12 — '000 *Metric Tons*

	Production	Domestic Use	Net Exports to Uganda and Tanzania	Overseas Exports
1963	343·7	117·5	115·6	110·6
1964	422·0	84·0	163·9	174·1
1965	483·8	98·2	186·2	199·4
1966	470·3	145·8	154·9	169·6
1967	493·6	185·1	87·3	221·2
1968	543·5	180·7	123·8	239·0

The table illustrates the rise in domestic use which took place concurrently with the increased building activity starting in 1966, the tendency for net exports to Uganda and Tanzania to decline, and the steady growth in overseas exports. It is expected that domestic markets will continue to expand, in line with building and construction, and that exports to Uganda, Tanzania and Zambia will shrink into insignificance as these countries expand their domestic production. The rate of growth of other exports will be governed, first, by the construction of new bulk-handling facilities and, secondly, by the construction activity in export markets. It is estimated, for example, that the present market of 55,000 tons in the Persian Gulf and Indian Ocean area could be expanded to 300,000 tons in connection with harbour and airfield construction projects.

10.127. A feasibility study has been carried out of prospects for a local *ceramics industry* including sanitary glazeware, and it is expected that a project in this sector will be implemented during the Plan period. The *glass industry* is also likely to expand, particularly in view of the large imports of houseware glass and the potential demand not only in Kenya but also in surrounding countries.

Metal Products

10.128. This group of industries covers a wide range of products such as steel window frames, corrugated and galvanized sheets, tins, nails, tanks, vats and pressure containers. The projected growth of 7.5 per cent per annum takes into account the continued expansion of the existing intermediate products, such as windows, sheets and nails for the building industry, tanker and trailer bodies for the transport sector, and tins for the canning of meat, fruit and vegetables, and also reflects possibilities for new products.

10.129. One new project is already under way, expanding the operations of an existing Mombasa company which manufactures nails, rivets, and welded mesh. The new factory will be built on Mombasa mainland and the expanded operations will include the re-rolling of imported steel billets to produce reinforcement rods, bars, angles and flats. The investment required will be K£500,000, some of which is being provided by DFCK, and there will be a substantial saving in imports.

10.130. Another opportunity is the manufacture of a wide range of agricultural hand tools. Most pangas and hoes are at present imported. However, prices must be kept at present levels, which means in effect that locally made implements will have to compete against imports without the protection of import duties.

Machinery

10.131. This industry which includes non-electrical and electrical machinery and equipment covers a very wide range of products, including milling machines, pump and related equipment, agricultural trailers, harrows, ploughs, sewing machines, dry-cell batteries, car batteries, rubber and PVC-insulated cables and wire. Feasibility studies will be undertaken to examine the production possibilities of diesel engines, centrifugal pumps, sprayers, bush cutters, spare parts for automobiles and a number of other items in the non-electric group. In the electrical section, new production will be introduced in motors, particularly winding operations, electric lamp bulbs, bakelite switches, electric cookers, heaters, radiators, refrigerators and washing machines where feasibility studies give positive results.

10.132. Generally, domestic use in the field of machinery is expected to grow faster than domestic output, for import substitution is inhibited by the immense diversity of products which are needed for the economy and limitation of production runs based only on the local market. Only in a limited number of cases is the local demand alone large enough to enable local production to be economic, and manufacturers will have to find export markets for such projects to be viable.

Transport Equipment

10.133. This industry is the largest in manufacturing in terms of gross product and employment and is expected to grow during the Plan period at 7 per cent per annum. Some industries, such as the building and repair of railways rolling stock will grow more slowly, while others, such as motor vehicle repair, and shipbuilding and repairing are expected to grow faster. The motor repair industry will continue to grow at least as fast as in the past. At Mombasa, an expansion of the dock-yard facilities may open up the possibility of a new project for shipbuilding and repair.

10.134. The overall growth rate would be considerably higher if feasibility studies of local assembly of passenger cars were to give encouraging results. Several manufacturers have made proposals for the local assembly of cars, but so far none has proved viable. The Government insists that local assembly should not result in higher prices for the consumers or loss of revenue to the Government. It is also necessary to ensure that the quality of the locally assembled product will be up to international standard. Consequently, any foreign manufacturers who allow their cars to be assembled in Kenya must undertake to supply other countries in the region from the factory, as the local market alone is too small to support such a project. The competition in other markets in the region would ensure the quality and price of the product.

10.135. The assembly of lorries and buses has been expanding fairly rapidly in recent years and is expected to continue during the Plan period. The bulkiness of fully assembled lorries is such that it is economic to assemble them locally without high protection. East African demand for tractors is reaching the level which could make local assembly viable, and the Government intends to re-examine this possibility.

CHAPTER 11—BUILDING AND CONSTRUCTION

Importance and Performance of the Industry

The building and construction industry must play a key role as regards capital formation for this Plan and will accordingly be one of the faster-growing industries. The share of total capital formation attributed to building and construction is approximately 50 per cent and is likely to be slightly higher in the future. The annual rate of growth of output between 1964 and 1968 was 10.8 per cent, which was one of the highest rates of growth among the major industries of the economy, although it followed five years of decline from 1959 to 1964. Over the 1970-1974 Plan period, the annual growth rate is expected to approach 9 per cent. Growth in the private sector will be slightly higher than in the public sector, as many public projects will be constructed by private firms under contract.

11.2. The building and construction industry is labour intensive; and as the sector expands, it will contribute toward reducing unemployment and under-employment in the country. In 1968, nearly 40,000 persons were employed in the industry and it is expected that the total may rise to approximately 70,000 by 1974. Furthermore, the industry is capable of depending increasingly upon domestic goods and services with less dependence upon imports from abroad.

Organization and Resources

11.3. The industry can be divided into two sub-divisions, each with certain distinctly different characteristics. One is the building portion that produces a wide range of buildings, including dwellings, factories and warehouses, schools, hospitals and other public and private buildings. The other, being the construction industry, includes roads, dams, water supplies and systems, sewerage systems, irrigation canals and communications and transport facilities. Plantation development and farm improvements, such as reforestation, terracing and other conservation projects are also contributions of the construction industry.

11.4. Compared to many developing nations, Kenya has a well-established building supplies industry. Only about 25 to 30 per cent of the cost of modest houses is represented by imported materials, among which are plumbing supplies, hardware and sheet metal for roofing. Cement, a basic building material, is produced locally by a growing cement industry that is producing for export, as well as for local building needs. In the past, *per capita* consumption of cement has been very low; but this will increase with expansion in building and will serve as a stimulus to the general economic growth. Also, several other basic building materials are produced locally and are capable of supporting a growing industry. These materials include burnt clay bricks and tiles, construction timber, concrete blocks, quarry products, wood and metallic window and door frames, paints and some hardware. In addition, there are encouraging possibilities for production of certain other building materials that are now being imported. Among other possibilities are less valuable sorts of wood and agricultural wastes for hardboard manufacturing, production of low-cost panel wood homes, ceramic sanitary ware and glazed tiles, asbestos cement roofing sheets and pipes. Plaster board is also a distinct possibility because of the availability of good gypsum. Quarrying has increased significantly as the construction industry has expanded and can be expected to continue at an annual rate of at least 9 per cent during the Plan period. In addition, some of the needed materials might be imported from neighbouring countries. Although production of local products declined during the years of low-level activity in this sector of the economy, with the recovery of recent years and the projected growth in the future, the suppliers of building materials are facing a much more encouraging market and must be prepared to supply the materials at the times and in the quantities required.

Capacity of the Industry

11.5. Although the capacity to respond to demands placed upon it is a major factor in the performance of any industry, it is of particular importance in construction. A sudden increase in demand for buildings of varying sizes and purposes can be met only if contractors are available to carry out the jobs. A study, completed in November 1968, by members of the staff of the Institute of Development Studies of the University College, Nairobi, indicated some difficulty in determining the actual capacity of the industry to respond to the anticipated growth in the building needs of the country. While many of the firms are relatively large and well established, with definite staffs and headquarters, others operate without central offices or permanent employees and have a minimum of equipment. Some firms operate spasmodically with a high level of turnover, often followed by long periods of inactivity. Yet, these firms are available and will respond to indications of expanding needs for construction activity. The study found that more than 140 firms were actually operating as building contractors in Kenya and with another group exceeding 250 in number that are usually available for small contracts.

11.6. The largest of the firms are public limited companies of an international character and are well established organizations with headquarters staffs, permanent supervisory and artisan personnel and substantial investments in workshops, machinery and equipment. A very large proportion of these firms are based in Nairobi but are available for projects throughout Kenya and the other East African countries. One of this large group is based in Nakuru and another in Mombasa. These firms have increased their levels of operation in the past few years and are definitely capable of further enlargement as the building needs of the country expand.

11.7. A group larger in number but smaller in size are also well established in the industry. One of the basic characteristics of this second group is that they tend to be "family" organizations with the head office and supervisory personnel being members of the family of the principal owner of each firm. Most of these contractors, like the larger group, maintain relatively permanent cores of skilled artisans and prefer large contracts exceeding K£50,000. A majority of these contractors have been operating for more than ten years and are thoroughly experienced in the industry.

11.8. Another group that are smaller and are located in several parts of the country, with concentrations in Kisumu, Mombasa and Nakuru, tend to employ no permanent labour but hire casual labour as required. They also use the services of sub-contractors to a considerable extent. They tend to operate on a non-continuous basis of accepting only one contract at a time, often followed by varying periods of inactivity between contracts. Virtually all of the contracts of this group are small, as the direct supervision is provided by the owners and is therefore a limiting factor in the scale of operation.

11.9. In addition to the large and small contracting firms is another group of "potential" contractors. Some have had contracts in the past, and others are submitting tenders but are not actually engaged in performing a contract at a specific point in time. Once a contract is obtained, a labour force is employed and work is begun. Although the capacity of these firms is difficult to estimate, they are in the tender market and are a part of the total construction capacity.

Manpower Resources of the Industry

11.10. The building and construction sector require three broad classes of labour. While the lines between the classes are neither clear nor distinct, classifying the workers into supervisory, artisan, and semi-skilled and unskilled is useful. Supervisory labour has responsibility for one trade or part of the total job. Artisans are skilled in particular trades or crafts. Semi-skilled and unskilled labour is often hired locally on a casual basis. The level of productivity of unskilled labour depends to a great degree upon the quality and quantity of available supervision. The industry seems to be able to attract an adequate supply of semi-skilled and unskilled labour and should be able to continue doing so in the future. There are, however, critical shortages of supervisory and skilled workers.

11.11. For the industry to meet the needs of the future, it is vitally important to accelerate the development of supervisory and management skills among the African contractors. These firms are performing an increasing role in the building programme of the nation. For several years in the future, a significant portion of their work will be in the public sector, largely for the Ministry of Works. It is important that these contractors receive continued encouragement from the Government. As the large-scale construction contracts are likely to be awarded to firms that depend upon capital intensive methods of production, the smaller firms tend to be more labour intensive.

Objectives and Policies

11.12. *Labour Intensive Methods.*—Construction can offer some choice between the use of labour and capital, and can permit the conservation of scarce capital resources and foreign exchange for projects and sectors of more limited technical flexibility. The Government is aware of this and is encouraging both labour intensive methods of production and the training of people to meet the needs of the sector as it expands, not only in terms of the number of semi-skilled and unskilled workers, but through all levels of skills and professional and managerial requirements. It must be recognized that labour intensive methods are not necessarily inferior to capital intensive and are to be preferred over the capital intensive methods as far as possible. It can be the case that, when a full comparison is made in a country in which wages tend to be relatively low and capital costs are high because of having to be imported from abroad, the labour intensive methods are more economical in terms of real costs.

11.13. Intermediate technology is particularly applicable to this sector, especially in regard to the construction of feeder and other minor roads and for a wide variety of local and other public works projects. Although the major projects will tend toward greater use of capital intensive methods, the smaller and more widely dispersed ones offer greater possibilities for the labour intensive methods. There is also the possibility where capital equipment is used that the choices of equipment can take into account the numbers of persons required to operate the equipment. Often the less expensive and less complicated equipment using more operators can do the same work that the highly expensive equipment can do by making use of a smaller number of operators. Development of skills in maintaining and operating the necessary equipment is an important objective of the Government in the further development of this industry. Skills developed in one segment of the industry can be transferred to others and even to other sectors of the economy. For example, workers maintaining a mechanized piece of equipment used in constructing dams can transfer their acquired skills to other similar operations such as building roads, houses and even to operating equipment used on farms and in factories. The value of this type of training and experience has been recognized within both the public and private sectors of the economy. The Ministry of Works will establish a research section in its Building Branch to carry out research in this field, and the information developed will be available to designers and contractors.

11.14. *Training.*—The building industry has taken the initiative in proposing that a training levy be imposed upon itself to be spent on training people to meet the expanding needs of the industry. The training is needed to provide greater numbers of skilled persons to replace non-citizens as well as to meet the additional requirements caused by normal growth. This matter has been under consideration by the Government and the industry. Without a system requiring all firms to participate, each employer is hesitant about making the necessary contributions toward training his employees, because of the fear of losing the trained employees to other firms. With a levy being charged to all to be used for training purposes only, the supply of trained personnel will be larger and will more adequately meet the needs of the industry as a whole. Therefore, the levy system will assure that each contractor will contribute on an equitable basis, and it will provide greater incentive to increase the total training effort of the country and enhance the productive effort of the industry. The proposal is to have the Ministry of Labour establish a Levy Board as the administrative agency. The Board will propose the basis for the levy and the kinds of facilities and the training to be provided.

11.15. *Geographic Diversification and Employment Opportunities.*—With the basic strategy of emphasizing development in the rural areas, small diversified projects widely dispersed geographically will be encouraged because of the employment opportunities that are created. It is important that the largest possible number of these be located in areas with surplus labour. The success of this policy will be greatly enhanced if adequate attention is directed toward seasonal shortages of rural labour, particularly during the planting and harvesting seasons. The wages paid should be according to the prevailing rates in the different localities rather than the wages paid by the large contractors in the urban areas using highly mechanized methods. Following this policy will not only assure greater employment but will spread the training and other benefits more broadly and equitably throughout all sections of the country. It is further proposed that labour recruitment for road projects should take place in the rural areas through which the roads will pass.

11.16. *Encouraging African Contractors.*—Nearly 400 African firms are registered by Provincial Engineers and the Ministry of Works. Most of these, however, are the smaller firms; but few of them have been engaged in large contracts with definite indication that they will undertake larger contracts more frequently in the future. Unlike the large contractors, fewer than half of them are based in Nairobi, and large concentrations of them are found in the Western, Nyanza and Rift Valley Provinces. Developing an industry based to an increasing extent on African contractors is a major goal of the Government in general and the National Construction Corporation in particular. These firms will tend to depend more heavily upon labour intensive methods as well as providing employment in many areas and in helping to avoid unduly heavy concentrations in only a few urban areas.

11.17. *Minimizing Costs.*—With the increases in the volume of activity within the building and construction industries and the forecasts of continued expansion, the maintenance of relative price stability is a major objective of the Government. Prices have risen throughout the entire sector in the past five years, although the increase was at a smaller rate in 1968 and 1969. Every effort will be made to assure that price increases are kept at a minimum. A major effort will be made by the Ministry of Works to reduce costs through planning and awarding large contracts for road construction projects. With a five-year road programme exceeding K£43 million, it is important to give the necessary attention to costs in each contract. A list of potential contractors will be maintained on a continuous basis; and for each programme, tenders will be invited from all of the contractors on the list. It has been found that larger contracts attract more tenders, thereby increasing the competition among the contractors. To encourage Kenya contractors to become interested and develop their firms, provision will be allowed for a small price differential when selecting the lowest bidder. Tenders for small contracts under K£5,000 will be invited solely from Kenya contractors. Helping these contractors become established and participate actively in the market will be one of the most effective means of assuring increased competition in the future. It will also help in bringing about a general increase in the capacity of the industry necessary to support an annual rate of growth averaging 9 per cent. The Ministry of Works will create a Building Construction Research Development Unit to enable the Ministry to provide the necessary leadership and guidance to the industry.

11.18. In a Draft Report of a Ministry of Works Reorganizational Study submitted in May, 1969, special attention was directed toward possible savings that could result from closer estimating and control of building contracts. The recommendations of the Draft Report are being considered prior to receipt of the Final Report. It was noted that Government regulations require that all contracts be put out to tender and that negotiating contract prices with appropriate contractors is not permitted. It is the view of the consultants that some freedom in negotiations would enable the Ministry of Works' staff to reduce costs of some of the contracts, at least. Among the recommendations of the Draft Report is that special effort be made to plan tendering requirements, so that peak loads will be avoided. This will have the effect of encouraging contractors to tender more competitively. The recommendations of the Study will be considered by the Government to determine how savings might be made in the entire building and construction programmes.

11.19. Another attempt to reduce building and construction costs has been to study the system of professional fees of the technical trades and professional bodies related to the industry. A committee has been formed to study all relevant disciplines. Special emphasis is being given to the scale of fees charged in Kenya, but the fees collected in other countries are being reviewed with the intention of formulating recommendations leading to the adoption of a system that will best serve the needs of this country.

Government Buildings

11.20. A significant part of the industry will be engaged in the Government buildings programme, which is expected to total approximately K£44 million or nearly 23 per cent of total Government development expenditure. Most of this programme, which is aggregated in Table 11.1 represents institutional buildings and housing necessary to implement the programmes outlined in this Plan, rather than just office accommodation, the expenditures for which are not included in the functional programmes and are aggregated separately in Table 11.2. However, with the many different agencies in the Government and their wide geographic dispersal, any compilation of building programmes covering a period of several years may be incomplete by the end of the period. The list, therefore, will be subject to some change with the evolving needs of the Government, but Table 11.1 provides an estimate of the total expenditures, most of which will be co-ordinated through the Ministry of Works during the 1970-1974 Plan period. A long-term building plan including the institutional and housing requirements of all Ministries will be devised and a Planning and Programming Unit within the Ministry of Works will be set up as soon as necessary manpower is available.

11.21. Office accommodation needs of the various Government departments will expand throughout and beyond the Plan period, but many of the more pressing needs will be met in the early years. Several Government departments have, of necessity, been using rented buildings. Although space in these buildings has met the most urgent temporary needs, buildings designed for the departments which will occupy them are a more satisfactory permanent arrangement. Therefore, a general policy of moving from rented buildings to those owned by the Government has been followed in planning the total Government building programme. Efforts have been made to plan the needs of the many Government agencies in order to follow a co-ordinated programme that will provide not only the actual space needed but will also assure that the design of each building serves the needs of the agencies occupying the buildings.

Roads Programme

11.22. A very large element of the building and construction industry is the Roads Development Programme co-ordinated by the Roads Branch of the Ministry of Works. This, like many other building and construction programmes, influences every province and every district, as construction of new roads and upgrading of existing roads will be carried out in every district

Estimated Value of Government Buildings Required

Table 11.1 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
*New Government Office Blocks	200	400	600	600	600	2,400
*Conference Halls and Offices	300	400	300	300	300	1,600
*Provincial and District Offices	161	160	160	160	200	841
*Administrative Police Buildings	40	150	150	150	150	640
Agriculture Programme..	1,303	1,522	1,174	1,124	909	6,032
Lands and Settlement Programme	116	5	5	5	5	136
Water Development Programme	35	100	75	50	50	310
Mines and Geological Headquarters	100	82	—	—	—	182
Forests Programme	17	20	28	38	41	144
Games N.P. and Fisheries Programme ..	74	70	75	75	25	319
Commerce and Industry Programme	20	10	10	10	10	60
Information and Broadcasting Programme ..	158	241	176	133	139	847
Education Programme	604	1,808	2,236	1,543	1,446	7,637
Health Programme	1,226	1,780	1,860	1,876	1,921	8,663
Housing Programme	250	300	300	300	300	1,450
Labour Programme	65	49	34	34	30	212
Remand Homes Programme	26	5	6	6	10	53
Police Programme	300	582	707	744	505	2,838
Prisons Programme	204	244	233	236	236	1,153
Defence Programme	344	300	300	300	300	1,544
Immigration Programme	47	50	51	—	—	148
Judicial Services	76	105	105	105	109	500
Power and Communications Programme ..	89	300	750	1,500	1,500	4,139
*Other Buildings and Works	664	390	390	540	690	2,674
Total	6,419	9,073	9,725	9,829	9,476	44,522

*Programmes not included elsewhere.

Estimated Expenditures on Government Buildings, not Included in other Programmes

Table 11.2 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
New Government Office Blocks	200	400	600	600	600	2,400
Provincial and District Offices	161	160	160	160	200	841
Conference Halls and Offices	300	400	300	300	300	1,600
*Administrative Police Buildings	40	150	150	150	150	640
Electrification of Government Buildings ..	40	40	40	40	40	200
M.O.W. Offices and Depots	32	50	50	50	50	232
Public Works Non-Recurrent	100	100	100	100	100	500
Contributions for Works Staff	100	100	100	100	100	500
Other Government Buildings and Facilities ..	392	100	100	250	400	1,242
Total	1,365	1,500	1,600	1,750	1,940	8,155

during the Plan period. The programme is presented more extensively in Chapter 14. It has been planned carefully with all proposals from District Committees being investigated, and all of the roads in the Plan have been inspected on site. Traffic volumes have been assessed and correlated to expected development and the need to open up new areas. The programme was planned with major emphasis on the development of rural areas. The estimated expenditure of the entire Roads Programme exceeds K£43 million. Concerted efforts will be made to minimize the increases in road construction costs as is being done with public buildings. The success of this effort will determine whether the estimated expenditures will necessarily have to be increased to complete the programme as planned.

Housing and Electricity

11.23. Another programme accounting for a significant portion of the capital formation which is especially closely related to the living standards, employment and general welfare of the people is Housing. A full analysis of this programme is presented in Chapter 19. Estimated expenditures in the public sector exceed K£33 million. In the private sector, the forecast is for an additional expenditure of K£20 million, with a combined total for both sectors of more than K£53 million. The electricity programme, analysed in Chapter 12, includes a very large construction element. A total of about K£14 million is expected during the Plan period for all of the construction projects of the industry. Like the Housing and Roads Programmes, its contribution to the total building and construction industry is of great significance.

The National Construction Corporation

11.24. The National Construction Corporation was set up in 1968 after it was appreciated that a major difficulty faced by many contractors was financial. The principal objectives are to sponsor Kenyan contractors and to encourage others to enter the construction field. These objectives are being pursued by providing assistance through loans, guarantees or other means; acting as the main contractor and sub-letting to Kenya contractors; and providing instruction in respect of accounting, estimating, planning, purchasing and other aspects of building technology. Its first move was to assist Kenyan contractors in establishing viable enterprises. In doing this, a significant number of contracts have been awarded to contractors who were either at a complete standstill or were seriously delayed because of insufficient financial resources. Credit was first provided through the Industrial and Commercial Development Corporation; but since April, 1968, the Corporation has depended upon its own revolving fund. By the end of May, 1969, more than 70 contractors had been granted loans related to work valued at approximately K£1 million and have aided Kenyan contractors who are continually assuming a more important role in the construction industry.

11.25. The Corporation has a revolving fund of K£100,000 from which loans can be made to contractors. It is anticipated that this fund will be increased to K£200,000 during the first two financial years of the Plan period. The estimates of the development expenditures of the Corporation during the Plan period are given in Table 11.3 below:—

DEVELOPMENT EXPENDITURES FOR THE NATIONAL CONSTRUCTION CORPORATION

Table 11.3 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Grants for Administrative Expenses	62·00	68·00	75·00	83·00	90·00	378·00
Loans for Contractors' Loan Schemes ..	50·00	50·00	—	—	—	100·00
TOTAL	112.00	118·00	75·00	83·00	90·00	478·00

11.26. Site supervision is one of the most important activities of the National Construction Corporation. During the first year of its operation, it was impossible to perform this function as adequately as it will be done in the future. Yet, the available supervision has been valuable to many contractors. Part of the supervision and advice is related to preliminary organization of contracts and assistance in ordering necessary materials. Education and training are integral parts of the activities of the Corporation through both individual training and formal courses. By the end of 1968, courses had been offered in all provinces. Because of the short time available, primary emphasis is placed on the practicable aspects of the business, intentionally avoiding heavy concentration on relevant theoretical considerations. Early experiences indicated a great desire for training and the Corporation will intensify the courses while conferring with the contractors about the most effective means of increasing the usefulness of the training. In addition, some institutions and private companies engaged in education and training have been contacted with a view to improving the effectiveness of the courses and on-the-job training. The Provincial Engineers and Quantity Surveyors will be asked to give talks on their local conditions.

11.27. In order to be of greatest practical assistance to Kenyan contractors, the Corporation has become the main contractor on several large projects, with Kenyan firms participating as sub-contractors. An example of this is the new Central Training Centre for the National Youth Service at Gilgil. This contract, with a total value of K£90,000, was shared by four firms. Another similar arrangement has been followed with the extension of the Kenya Institute of Administration at Kabete. This contract with a total value exceeding K£100,000 was awarded by the Ministry of Works. Other projects in which sub-contractors are employed are with the Ministry of Works and the Municipality of Kisumu. This practice will continue, as it enables the Corporation to concentrate on training persons working in new contracting firms, permitting the limited supervisory staff of the Corporation to focus attention on a relatively small number of jobs and be of maximum benefit to the sub-contractors. In summary, the full range of activities of the Corporation are directed to increasing both the number and degree of effectiveness of Kenyan contractors and their contribution to the economic development of the nation.

CHAPTER 12—ELECTRICITY

Electricity is supplied by the East African Power and Lighting Company Ltd. (E.A.P. & L.) and its associated companies, the Kenya Power Company Ltd. and the Tana River Development Company Ltd. The power companies operate under exclusive 50-year bulk supply licences granted by the Government.

12.2. Although the essential role of E.A.P. & L. is that of distributor of electricity to consumers, it owns and operates thermal generating plant and a few hydro-electric stations and transmission lines, as required, in the Central and West Kenya areas, as well as three thermal power stations to supply the Coast area. The E.A.P. & L. is a public limited liability company maintaining share registers both in London and Nairobi. Total issued and paid-up share capital as of 31st December 1968 amounted to K£9.7 million, and the Company's total net assets were valued on that date at K£13.4 million. The Government now ranks as the largest single shareholder, with approximately 40 per cent of the capital.

12.3. The Kenya Power Company generates electricity at its hydro-electric stations on the Upper Tana and Maragua rivers. It also purchases bulk supplies of up to 30 MW. of electricity from the Uganda Electricity Board at Tororo in Eastern Uganda, in accordance with the terms of the 50-year Kenya/Uganda Electricity Agreement. The supplies from these sources are transmitted to Nairobi and sold in bulk to the E.A.P. & L. for distribution. The major transmission line from Tororo to Nairobi is also tapped for bulk deliveries to E.A.P. & L. at Lessos and Lanet to serve Western Kenya. The Kenya Power Company sells all its supplies to E.A.P. & L. at "ascertained cost", i.e. a cost based on payments in respect of capital redemption and interest charges, plus operating expenses and all administrative and other charges. It operates on a "no profit" basis. The Kenya Power Company is a public limited liability company, the issued ordinary share capital of which is held one-third each by the Government, E.A.P. & L. and Power Securities Corporation Ltd. The 50-year licence issued to the Kenya Power Company provides that on expiration or prior revocation, all assets of the company revert to the Government and that the two electricity companies sell their shares to the Government at nominal value of the shares.

12.4. The Tana River Development Company Ltd. was established in 1964 to develop the hydro-electric power resources of the Tana River at Seven Forks. The Tana River Development Company sells in bulk to E.A.P. & L. all electricity generated at its Kindaruma hydro-electric station and will also do this at other stations subsequently developed on that river. Sales are at "ascertained cost" as in the case of the Kenya Power Company, and the company operates on a "no profit" basis. The Tana River Development Company is a limited liability company with the Kenya Government, Commonwealth Development Corporation, E.A.P. & L. and Power Securities Corporation Ltd. as equal partners. Under the terms of the Tana River Development Company Agreement, the assets of the company will vest in the Government when all loan moneys have been repaid.

12.5. The Electric Power Act enables the Minister for Power and Communications to control by licence, consent or otherwise many important matters of company policy. For example, no increase in electricity tariffs can be effected without the approval of the Minister. This enables the Minister to ensure that the tariff structure is consistent with the Government's Development Plan. The Government is represented on the boards of directors of the three power companies which ensures that the Government's policies and wishes are fully expressed and represented in the shaping of the policy of these companies.

Electricity demand

12.6. The development programme for electricity is based on the expectation that demand for electricity will grow by about 9 per cent per annum. Since demand growth has varied greatly from year to year in the past, it is quite possible that experience during the next few years may cause a change in the timing of new installations so as to follow as closely as possible actual demand development. The most important thing in electricity generation and distribution is that the system should be able to meet all requirements. The cost of temporary shortfalls can be heavy to individual users and cause dislocations in the economy. On the other hand, the cost of investing in new installations is also very heavy, and it is important that the installations all be timed so that they will be fully used with the minimum delay. Whether they are used or not, they will constitute a cost on the economy for amortization of loans and payment of interest.

12.7. The growth in electricity demand has been about 6.7 per cent per annum over the ten-year period 1959-69 on the basis of units sold to consumers by E.A.P. & L., but during this ten-year period the highest growth rate, from one year to another, was 12.7 per cent and the lowest was 1.9 per cent. The system must not only be developed so as to take care of the demand growth within a range of the order indicated, but it must also be flexible enough to meet demand when there are occasional seasonal peaks, and also to manage through the occasional year of drought, when hydro-electric installations will generate less power than normal, or when there is any other shortfall in normal supplies. Thus, the present electricity system is being built up to take care of about 9 per cent growth of maximum demand as well as 9 per cent growth of average demand. This means that during the Plan period the system will have the capacity at any time to supply about 40 per cent above the projected average demand.

12.8. The electricity developments planned for the years 1970-74 form part of a larger and longer-term planning framework extending into the eighties. Thus, on present indications maximum demand is likely to rise from 101 MW. in 1968 to 286 MW. in 1980, which is an indication of the required capacity growth, while the energy requirements during the same period are likely to rise from 619 million kWh. in 1968 to 1,751 million kWh. in 1980. While this projection might have to be changed in the light of events, it forms the basis for present planning. Fortunately for Kenya, it is possible to develop sources of electric power in comparatively small steps of between 15 MW. and 50 MW. at a time, so that the programme can be accelerated to retarded within limits, and also so that at no single time will there be a great excess of unused capacity to pay for.

12.9. The present demand projections represent an assumption that demand will rise faster than during the past ten years; they are based on considerations of the faster growth rate which is planned and expected for the economy as a whole. The flexibility of the system, as currently developed, stems from a number of factors, which are described on following pages.

Power Stations and Major Transmission Lines

12.10. The demand for electricity occurs mainly within a few miles of Nairobi and Mombasa, these centres accounting for about two-thirds and one-quarter respectively of the total. Most of the remaining demand occurs west of Nairobi. The supply system has hitherto been in two parts. The inland part, which supplies Nairobi and west Kenya, is based on three hydro-electric stations in the Tana River Basin totalling 63 MW. installed capacity, namely Wanjii and Tana 23 MW., and Kindaruma 40 MW. Kindaruma consists of two sets of 20 MW. each, of which the second is now being made operative. A bulk supply contract with Uganda provides up to 30 MW. and various small diesel and other plants provide standby capacity. The stations and load centres are interconnected by 132 kV. and 66 kV. transmission lines. The coastal system is supplied by a 40 MW. oil-fired steam station, and there are other small sets in various places for local supplies.

12.11. This Plan is designed to increase the capacity of the system and its flexibility in the following ways. Construction is under way at the moment on a transmission line (or "interconnector") between Nairobi and Mombasa, which will become operative in 1970. This will increase the possibility of meeting peak demands, or countering local shortfalls, by drawing on sources elsewhere in the system. At the same time, an aircraft gas turbine of 12 MW. will be installed at Kipevu (Mombasa) which will serve two purposes. It will normally operate to ensure that the transmission line is run at minimum losses and will be available to meet system emergencies which could jeopardize the vital auxiliary supplies to Kipevu Power Station.

12.12. During 1970, work will also be carried out and completed on sub-stations at both ends of the interconnector. In the following year a steam unit (Kipevu Steam Unit 6) at Mombasa will come into operation with 30 MW. power which can then be used in conjunction with supplies up-country and in 1973 it is likely that a 12 MW. industrial gas turbine power will be added at the Nairobi end in order to ensure supplies while the Kamburu Hydro-electric works at Tana River are under construction. The Kamburu project represents the biggest single development and should come into operation during 1974 with 50 MW. at the first stage (in the form of two units for 25 MW. each) with a third unit of 25 MW. to be added probably in 1976, after the present Plan period. At the same time as Kamburu is under construction a high voltage transmission line will be erected between Tana and Nairobi in order to transmit the Kamburu power. A link will also be erected between Kamburu and Kindaruma and the completed circuit will increase the reliability of supplies from Tana in case one or the other of the two Tana-Nairobi lines should be out of commission at any one time. This sequence, which is summarized in Table 12.1 represents the major generation and transmission installations planned for 1970-74.

CONSTRUCTION OF POWER STATIONS AND MAJOR TRANSMISSION LINES, 1970–74

Table 12.1

Year	Maximum Demand	Additions	Capacity	Cost(3) K£'000
1970	120 MW	Kipevu Gas Turbine (Aircraft)	12 MW	430
		132kV transmission line MSA/NBI ..	—	2,490
1971	131 MW	Kipevu Steam Unit 6	30 MW	2,230
1972	143 MW	—		
1973	156 MW	Nairobi Gas Turbine (Industrial)	12 MW	600
1974(1)	170 MW	Kamburu Hydro-electric units 1&2 .. and transmission line Tana–Nairobi ..	50 MW(2) —	11,750
				17,500

(1) It is planned to retire 4 MW. of diesel plant by the time Kamburu comes into operation. Although the programme as shown above represents a planned net addition of about 100 MW. of capacity during the Plan period, the aircraft gas turbine for Kipevu is for emergency use only and the Nairobi gas turbine may be required to meet the system security requirement in so far as it is primarily to ensure that the capacity of this plant is adequate in the event of the flow in a particularly dry season.

(2) The two units which will supply 50 MW. in 1974 will receive support from a third unit of 25 MW. to be installed at an estimated cost of about K£750,000. Thus, the Kamburu project as a whole should be regarded as costing about K£12.5 million for 75 MW. installed and including the cost of transmission line to Nairobi. The costs given for Kamburu also include interest during construction.

(3) The capital cost figures are very tentative and liable to revision when detailed cost estimates for the projects are carried out.

12.13. The flexibility of the system will be increased by the interconnections referred to above, which in effect mean that power demands and power supplies can be evened out in a system stretching from Uganda to the coast and including Tana River. The blend of hydro-electric power supplies from Uganda and Tana River, steam supplies from the coast and diesel and gas turbine support at Nairobi and the coast represents a major step forward and should assure maximum economy of generation, both with respect to variations in demand and variations in supply, irrespective of whether the latter may arise from seasonal or annual fluctuations in river flows, or from possible breakdowns. The advantage of Tana River developments—which will continue into the late seventies, not only with the installation of the third set at Kamburu, referred to above, but also with an 84 MW. development at Gtaru—is that the power additions can be made in reasonably small steps. The potential for further Tana developments will not be exhausted in the seventies. Preliminary surveys of the river indicate that the river might have a total capacity of at least 1,000 MW.

12.14. The economics of hydro-power development will, however, depend upon a great number of other factors. The rivers in Kenya are seasonal and this makes it uneconomic to install generating sets which can utilize the wet season flows, as much of the plant would be useless during the dry season. To a certain extent, reservoirs will even the flow of the river, enabling more generating units to be used during the periods of low river flow. In order to store the flood water and to save this water for use during the dry season some four to five months later, a very large reservoir would be required. The cost of such reservoir would have to be assessed economically against other means of generating electricity during the dry season. Present studies indicate that generation of electricity by steam at the coast during the dry season is, at the present stage of development, a more economic solution to the problem. The future development of Tana River, beyond the Plan period, will also depend upon the possibility of other new sources of power at lower cost.

The Hydro-power Potential of Other Rivers

12.15. The Water Development Department has divided the country into five drainage areas, as listed in Table 12.2, and made very approximative calculations of the total potential energy in each area. Data show that the useful areas of high rainfall are restricted to Drainage Area 1, a part of Drainage Area 2, and the headwaters of the Tana River. The lower Tana catchment and most of Drainage Areas 2, 3 and 5 suffer from low rainfall and the rivers, which are generally not perennial, are not susceptible to economic development. A detailed analysis has been carried out, from which it is concluded that there is little hydro-electric potential except on the Tana River. The Lake Victoria Drainage Area contains many small perennial rivers, but no large river which could contribute significantly

Table 12.2

Drainage Area No.	Location	Area (sq. miles)	Total Potential Energy (mill. kWh)
1	Lake Victoria catchments	20,000	7,500
2	Rift Valley catchments	43,200	1,900
3	Athi River and S.E. catchments	25,700	2,700
4	Tana River catchments	37,300	15,350
5	Ewaso Nyiro River and N.E. catchments	98,700	2,700
	TOTALS	224,900	30,150

to power requirements. The rivers have a flashy run-off characteristic, and firm flow is generally dependent upon storage being available. Because the surrounding countryside is heavily populated, storage reservoirs, even where practicable, would cause dislocation and be relatively expensive. However, in the eighties the Upper Reservoir development on the Tana River, combined with gas turbine plant could be used to firm up the output of small hydro-electric stations without the provision of storage, and some sites might then be developed. It is evident that any hydro-electric site which is developed must be cheaper than either Tana River or thermal power.

12.16. Other very small sites also exist, particularly in the high rainfall mountain areas where run-off is snow fed and perennial. These sites may well be usable for supplying isolated development, but with the mapping and flow gauging available, it has not been practicable to consider them for the new Plan period.

Other Sources of Energy

12.17. Sun, wind and tides are energy resources which, if they could be tapped economically, might contribute to electricity generation. However, solar and wind power are characterized by high cost small units which are incapable of providing firm power. The tidal range at Mombasa is too small to merit detailed study of tidal power.

12.18. Nuclear power developments in other parts of the world have not usually been more economic than conventional generation unless they are large; recent stations generally exceed 600 MW. in capacity and would therefore clearly be inappropriate for this country at the present stage of its development. The capital cost of smaller nuclear reactors, with capacities as low as 100 MW. have, however, tended to fall and are approaching the stage when they might become competitive with oil-fired steam. In the Plan period 1970-74, nuclear power will not be used because it is considerably more costly than the Kamburu hydro-electric development, because a single generating unit of 100 MW. size could not easily be absorbed by the system, and because it would make it more difficult to provide sufficient spare plant. By the late seventies, however, technology may have advanced to the stage where smaller units of 60 MW.-80 MW. size are practicable and economic. The rapid changes taking place in nuclear technology demand that the situation be kept under regular review and that future plans be amended if necessary.

12.20. Geothermal energy is also a possibility in the future. The Government and the E.A.P. & L. have for a number of years been actively interested in developing geothermal resources in the Rift Valley, where many encouraging manifestations of geothermal activity occur. The development of this relatively cheap form of energy, in conjunction with the existing and planned hydro-power schemes, would go far to compensate for the country's lack of indigenous fuels. As a result, the Government is seeking financial assistance towards an exploration programme, located primarily in the Lake Hannington area and designed to explore and evaluate the geothermal resources available with the intention of developing these resources to produce a supply of electric power which could be integrated as a base load supply into the existing power system.

12.21. Geothermal steam is most economically applied to base load generation and offers distinct advantages over any other form of generation, especially at higher load factors. If steam is found in sufficient quantities for a first-stage geothermal development of 30 MW. at Lake Hannington from where it would be connected to the present bulk supply line passing from Uganda to Nairobi, it could conceivably reach the main system at considerably lower cost per unit, compared to hydro-power.

12.22. The reason for the expected cheapness of geothermal power, if found in sufficient quantities, is that it does not require any expensive capital investments comparable to the dam buildings and tunnels which are required for hydro-power, but can be piped comparatively cheaply from different wells to a steam turbine power plant operating under low pressure. In this respect, a geothermal plant would be comparable to, or cheaper than, a conventional oil-fired steam power plant, without having to pay any costs for fuel. The capital costs of ordinary oil-fired plant are very much lower than the capital costs of hydro-power installations. The additional advantage of geothermal steam power, compared to hydro-power, is that the steam would be coming at a constant flow, without the variations in power which characterize river flows. For this reason it can be used for base load purposes and would increase the economies of operating other parts of the total system.

12.23. The present stage of development consists only in exploring whether the steam is available in sufficient quantities and pressure for commercial exploitation. The exploration is expected to cost between K£800,000 and

K£900,000 spread over a period of three years, and only if the investigations yield definite and positive results would it be meaningful to proceed with further expenditure. For this reason, the investigation costs are listed in the Plan as investment expenditure, but no further investments are taken into account, nor any output. To have geothermal power available in early 1976 necessitates a start being made to the exploration project at the beginning of 1970.

12.24. Imports of electricity are also important. Under the provisions of a long-term bulk supply agreement with the Uganda Electricity Board, Kenya now imports about 30 MW. from Uganda. The present cost of imports is not cheap when measured in Nairobi after allowing for transmission line costs and losses, but because the transmission costs are mainly fixed charges on capital, the marginal cost of energy transmitted is low.

12.25. The present transmission line could carry a further 15 MW., and with the addition of stabilization equipment and sectioning, and by making full use of both circuits, its capacity might be considerably increased. These facts, and the possible need for Uganda to go ahead with a major development of the hydro-electric power of the Nile at Murchison Falls which does not lend itself to several small-stage developments as on the Tana River, have prompted a series of meetings between the Governments and the electricity undertakings of Uganda and Kenya with a view to co-ordinate electricity developments in the two countries to their mutual benefit.

12.26. At the suggestion of the World Bank, and following requests by the two Governments, Lord Hinton of Bankside acted as independent Chairman at these meetings. The basis for discussion was provided by a Joint Report by Engineering Consultants commissioned by the Kenya and Uganda power undertakings. Further discussions were based on a Supplementary Report by the Consultants, and a great number of alternatives for power development in the two countries were considered. The Governments and electricity undertakings in Kenya and Uganda agreed to work together, with good will on both sides, to develop a co-ordinated supply of electricity in both countries.

12.27. As a first step, it was agreed that the following developments should proceed as soon as possible—

(i) the Kamburu/Gtaru development on the Tana River for commissioning at the beginning of 1974;

(ii) exploratory and design work on the first stage of the Murchison Falls development with a view to commissioning at the end of 1975.

It was understood that modification of these proposals might result from a more detailed consideration of either project.

12.28. However, Uganda have since indicated that they do not expect to be short of capacity before the Murchison Falls development is completed in 1975. It has therefore been agreed that Uganda will not requisition any supplies from Kenya, but that the two countries will operate on a basis of mutual support. Six-monthly liaison meetings are to take place in future between the electricity undertakings in Kenya and Uganda. Since the present transmission line can carry 45 MW., it is quite feasible that, at periods of shortage Kenya might be helped out by Uganda above the contractual 30 MW. The possibility of reversing the flow from Kenya to Uganda has also been considered in the event of Uganda demand growing more quickly than is at the moment considered likely.

12.29. Considerations of the above nature have influenced the direction and timing of electricity planning and are a concrete example of practical co-operation between Kenya and Uganda. While the fundamental principle of electricity planning in Kenya is to aim at self-sufficiency in overall supplies of electricity, such a policy is fully compatible with co-operation and with co-ordination of electricity developments, including short-term variations in supplies between the two countries.

Distribution Expansion*

12.30. The development of the power distribution network throughout the country will take place in a large number of small projects which cannot be individually predicted in advance, and which are not closely related to the new main generating stations and transmission lines. Consequently, the distribution development has been considered for the Plan as a general expansion and strengthening of the existing network.

12.31. Distribution expansion has a direct relationship with the demand forecast of 9 per cent, underlying this Plan. In some areas, where demand is already well developed, the increasing needs of existing and new consumers will establish the amount which must be spent on the distribution system. In other areas, where the demand is low or where electrification is incomplete, the amount spent to extend electrification and to educate people to use electricity will influence demand growth.

12.32. It is expected that in the Nairobi area, the demand growth will in the long run require 66 kV. and 132 kV. lateral systems, developing into ring systems, connecting the incoming supplies with main distribution sub-stations. The development planned in this context will spread far beyond the present Plan period, and it is expected that the area covered by 1986 may be about 1,000 sq. miles, requiring secondary transmission distances of up to about 20 miles. At the coast the demand will be lower but secondary transmission distances may also be up to 20 miles. The annual costs expected for normal distribution expansion by way of investment are set out in Table 12.4 below, under the heading "Capital Expenditure in the Electricity Sector" which also includes costs of building the new headquarters of E.A.P. & L.

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* (The definition of distribution used here is that it includes secondary transmission, i.e. 132 kV., 66 kV. and 33 kV. feeders from main sub-stations to 11 kV. distribution sub-stations. It also includes 11 kV. feeders and anciliary equipment, meters and cut-out.)

12.33. The expansion of normal commercial rural supplies of electricity has been substantial in recent years and is shown by the list of localities provided in Table 12.3 with the capital costs involved in each case. This extension of normal commercial rural supplies is continuing during the Plan and will be given very careful consideration by the electricity undertaking. The problems involved are illustrated by a detailed study made some years ago of the possible electrification of the rural area between Nairobi and Nyeri with a population density of about 500 persons per square mile. The result of this study was that the average costs of investment in such densely populated rural areas amounted to about K£700 per kW. for the first year of extension, but as consumption in an electrified areas would be growing over time, the capital costs might fall to about K£400 per kW. by the tenth year. While programmes of this nature are pushed ahead it must be realized that they are only marginally, if at all, economic. The distribution capital costs of K£700 falling to K£400 per kW. compare with average estimates of little more than K£100 of investment per kW. for distribution related to areas with population densities of about 1,500 persons or more per square mile.

Uneconomic Supplies or Amenity Schemes

12.34. The provision of uneconomic electricity supplies to rural and isolated areas will be extended during the new Plan. These supplies will be small in relation to total demand, and they will be disproportionately costly, but they have a wider social and economic significance which justifies special consideration. An uneconomic supply is defined, in this context, as one in which the cost of providing the service, including charges on capital, exceeds the revenue which can be obtained at ruling tariff levels. Uneconomic supplies may be of two types:—

(i) Isolated supplies, in which a small area is served by a separate generating station without interconnection with the main system, or

(ii) uneconomic extensions to the main distribution system.

12.35. The introduction of electricity supply in areas which are at present without will lead to a general raising of living standards in the areas connected. It will also help to disperse light industry to rural areas, with a consequent increase in employment where it is most needed. Not least important is that education and communication will be facilitated. Commercial sales of electricity, even at subsidized rates, can only be considered in areas where the local economy has a sufficiently broad money base. The spread of rural electrification will depend upon general rural development continuing at a fast enough rate to enable people in rural areas to afford even a limited electricity supply.

Table 12.3

NORMAL RURAL ELECTRIC POWER DEVELOPMENT

A Selection of Capital Development to New Areas from 1965-1968

Scheme	*Capital* £
Bamburi Village	4,155
Bibirioni Township	1,300
Diani Area	2,700
Freretown	2,420
Gamboni Market, Maragoli	1,210
Gathage Market	1,563
Giakanja Town, Nyeri	4,130
Gitaru Town	1,162
Githunguri Town	9,256
Kabare and Kianyaga Area	9,600
Kagio Market, Embu	2,721
Kagumo, Kaguyu, Embu	8,216
Kagumu Market	2,984
Kakamega School and Kyauakali Market, Kisumu	4,854
Kangundu, Tala Area	12,500
Kapsamonget Town and Market	2,957
Karima, Othaya, Chinga, Mbuni and Kagichi Towns, Nyeri	17,911
Kiambaa Township, Limuru	4,414
Khayega Market	963
Kianyaga and Kerugoya, Embu	18,416
Kiganjo Trading Centre	6,400
Kigari Area, Embu	4,600
Kilifi Village	1,175
Kiria Village, Nyeri	1,359
Koru	1,434
Lake Naivasha South Shore	28,000
Likoni Village	2,899
Luanda Area	11,000
Mangu Area	3,000
Meru—Nyambeni Area	17,000
Mitituni Market, etc., Machakos	5,452
Molo and Turi	29,000
Muchatha Township	4,800
Musingu Secondary School	3,000
Mwea Area	12,500
Mweiga Township	2,200
Mwihila School and Trading Centre	12,000
Mwimuto Township	2,264
Mwimutu Village and Trading Centre	1,300
Ndararua Town	6,778
Ngandu Village and School, Nyeri	3,449
Ngewa Market	1,746
Nyaga Town	2,481
Takaunga Town	4,591
Tudor Estate	5,051
Ukunda Village	1,100
Waithaka Market	1,451
Watamu Area	4,155

Financing of uneconomic supplies

12.36. The policy in most countries which have faced the problem of financing uneconomic supplies is for the more remunerative urban business to support rural development without direct Government assistance. It has therefore been decided that the E.A.P. & L. will set aside each year an amount from profits which will be used to provide capital subventions and subsidized operation for uneconomic supplies, and that this allocation will, for the time being, be of the order of one per cent of sales revenue.

12.37. Electricity amenity schemes coming under the heading of uneconomic supplies have, in the years 1966-69, been implemented in Embu, Meru, Kakamega/Kaimosi, Maseno, Kapsabet, Homa Bay, Kwale, Lamu, Kisii and Kitui. In accordance with the Government's policy of an accelerated programme of implementation of amenity schemes, the following localities will have electricity during the Plan period:—

Mazeras	Isiolo	Yala
Mariakani	Wundanyi	Garissa
Kajiado	Kabarnet	Wajir
Narok	Bungoma	Voi
Sotik	Eldama Ravine	

12.38. The recurrent losses on the amenity schemes are expected to grow from about K£50,000 per annum at the beginning of the Plan period to about K£77,000 in 1974, i.e. growing by about 9 per cent per year or by the same rate as revenue. As shown in Table 12.4 the continuous implementation of such schemes will require an annual investment of about K£75,000 which cannot be expected to be recovered.

Employment

12.39. The electricity supply industry employs labour both directly, for the operation and maintenance of the power system and the construction of new facilities, and indirectly in its requirements for goods and services manufactured or provided in Kenya, and for the maintenance of electrical machinery and appliances. Employment due to the electricity supply industry will, however, be only a small proportion of the total employment in the country during the Plan. Although national planning of manpower and education has to take into account the needs of the electricity industry, any variations in the number of employees from those estimated will have relatively minor effects on a national scale. Their impact will be greatest on the industry's own training policy.

12.40. E.A.P. & L. operates and maintains the entire electricity supply system, including those facilities owned by the Kenya Power Company Ltd., and the Tana River Development Company Ltd. The forecast of future requirements assumes that this arrangement will continue and that there will not be duplication of technical or managerial staff. In 1967 E.A.P. & L. employed about 2,500 persons. It is expected that employment may reach 3,250 by 1974.

12.41. Semi-skilled and unskilled workmen account for about 58 per cent of the labour force, artisans and clerical workers for about 33 per cent, while professional and sub-professional workers represent about 9 per cent. It is expected that these proportions will remain largely unchanged during the Plan. Thus, some 40-50 per cent of the work force must have some technical skills.

12.42. The Government has made clear its policy of replacing expatriates in industry by Africans. About 95 per cent of the present employees of the power companies are Africans, with expatriates filling only those jobs for which African applicants with the necessary technical skills cannot yet be found.

Education and training

12.43. Education and training are vital to the future manning of the industry. The Government has placed major emphasis on secondary school education without which the foundation for the further training of skilled workmen, technicians and professionals would not exist. E.A.P. & L. operates a Training School which gives students a combination of classroom teaching and practical training to enable them to take skilled jobs in the power industry. Some promising students are given bursaries to attend university or technical colleges, and when they graduate they will be able to train for responsible positions in the industry. These students will be able to fill positions presently held by expatriates and it is anticipated that during the Plan the proportion of expatriates required will continue to be reduced.

Capital expenditure in the electricity sector

12.44. The costs of the power stations and the major transmission lines, i.e. the costs of the planting-up programmes, have been shown in Table 12.1. In Table 12.4 an attempt has been made to indicate the time-phasing of this expenditure over the whole Plan period. With respect to installations coming into operation in 1970, such as the transmission line between Nairobi and Mombasa, some of this expenditure has been allocated to the year 1969. It must be emphasized that the timing of the actual expenditure in the first column is very tentative. The table also shows the tentative timing of expenditure on normal development and secondary transmission. The total cost of the programme is based on a ratio of approximately K£100 of investment per additional kW. of maximum demand. Of this, K£70 is attributable to local distribution, K£20 to secondary transmission and K£10 to meters and cut-outs.

Table 12.4 K£'000

Year	Power stations and major trans-mission lines	Normal dev. and secondary trans-mission lines	Amenity schemes	Geother-mal explora-tion	Total capital expendi-ture	Import content	Local expendi-ture
1969	1,126	1,188	89	—	2,403	1,690	713
1970	2,446	1,225	75	167	3,913	2,471	1,442
1971	3,023	1,000	75	167	4,265	3,122	1,143
1972	3,307	1,100	75	167	4,649	3,288	1,361
1973	3,625	1,200	75	167	5,067	3,455	1,612
1974	3,981	1,300	75	167	5,523	3,071	2,452
1970–1974 ..	16,382	5,825	375	835	23,417	15,407	8,010

Local expenditure in this table has been defined to include salaries, wages, dividends, commissions and other remuneration less exported savings, fees, etc. Local rents, rates, taxes, duties, fees and similar local charges are counted as local expenditure. Very tentative estimates have been made of the import content in civil engineering and construction works, erection of transmission lines, etc., including the wear and tear of imported transport equipment. The tentative estimates indicate an import content of 60 per cent for the Kamburu project as a whole, 75 per cent for the Nairobi-Mombasa transmission line (including sub-station), 77 per cent for the Kipevu thermal unit and 93 per cent for the gas turbines. These estimates average out as about 66 per cent for the whole programme. A similar percentage has been assumed for the import content in normal and secondary transmission, amenity schemes and geothermal exploration. The estimates for off-shore expenditure year by year must necessarily be tentative; the percentages will differ depending upon whether, in a particular year, the planting-up programme is assumed to involve a high proportion of civil engineering work (which has a low import content) or a high proportion of equipment installation (which has a high import content).

12.45. The total cost of the investment programme during the five years 1970-74 amounts to K£23.4 million of which about two-thirds represents import purchases of one kind or another. The K£8 million of local expenditure on investment includes the cost of a certain number of regular employees of E.A.P. & L. but it may be expected that the planting-up programme in addition will employ an average of 1,000 men per year engaged on the construction sites. This direct employment will not be significantly large during 1970, but will grow rapidly during 1971, 1972 and 1973 when the Kamburu hydro-electric works will be in full progress, and probably taper off again during 1974. The next major installation, in 1976, will only involve the third unit of Kamburu and not require a great number of workers, since most of the civil engineering and construction work to accommodate the third unit will already have been carried out during the Plan. A substantial but unknown number of workers will be employed in transport and building materials production as a result of the investment programme in electricity, and especially in connection with the Kamburu project.

12.46. The *gross product* or value added (G.D.P.) which accrues to Kenya from this type of investment programme may be of the order of 10 per cent to 15 per cent of the total project cost, rather than the 34 per cent indicated by "local expenditure" since many of the local costs will in fact have import content. On this basis, the investment programme might be expected to contribute about K£3 million to Gross Domestic Product, over a period of five years, or K£600,000 per annum.

12.47. The major part of the investment programme will be financed by overseas loans. Thus, the Kipevu thermal unit, the Mombasa-Nairobi interconnector, and the two gas turbines are largely financed by long-term credits from the Commonwealth Development Corporation and the Export Credit Guarantee Department. The World Bank has been asked by the Government to consider the Kamburu project for financing, and the project is now under study. As far as possible, the Government proposes to ensure that international tender procedures are applied for major projects in the power development field. Normal development and secondary transmission and to some extent also major transmission lines are the financial responsibility of E.A.P. & L. and will be financed by its own or borrowed funds. Amenity schemes will be financed by E.A.P. & L. within the one-per-cent rule referred to above.

CHAPTER 13—WATER SUPPLY AND RELATED SERVICES

Urban and rural water supplies, and related services such as sewerage, drainage and pollution control, are important factors in the country's development. This chapter discusses the programmes to be undertaken for water and related services during the Plan, with the exception of larger irrigation schemes covered in Chapter 8.

13.2. Water is essential for personal needs and for production activities in both urban and rural settings. Treated water supplies have so far been available predominantly to residents of urban areas: only about 15 per cent of the rural population is served by piped water points and even these provide only untreated water. Under present conditions most rural families must spend three to six hours a day carrying water from a distant stream, pond or well, which is estimated to be equivalent to 600,000-man days per day. While this arduous work is generally performed by the women and children, it nevertheless diverts a tremendous amount of human energy away from other possible activities such as cultivation, animal husbandry, more intensive child care, and necessary leisure. Providing water to rural families by conveniently located piped water points is estimated to release from one-half to three-quarters of the time now spent on the task for use in more productive activities. Water made available more easily and in larger quantities could significantly raise the level of production per family realizable from small farm cultivation and animal husbandry. The provision of rural water supplies is accordingly regarded by the Government as a fundamental condition for rural development.

13.3. Improved water supplies are also urgently needed to raise the national level of health. A high proportion of illnesses, especially among children, are caused by gastrointestinal diseases spread by polluted water, leading to extensive suffering and substantial costs in terms of medical care, lost working time and children who never live to make their contribution to the nation. While this problem is most serious in the rural areas it is also assuming significant dimensions among the poorest urban dwellers, most of whom live in squatter settlements without standard water systems or sanitation. Recognizing these situations, the Government will mount a large rural water supply programme, commencing with the first year of this Plan, with the objective of bringing acceptable water supplies to all the rural population before 2000. In addition, substantial further investment will be made in urban water projects.

13.4. All water development is under the supervision of the Water Development Division, Ministry of Agriculture, while advice on water resources and permits for water use originate respectively with two other bodies, the Water Resources Authority and the Water Apportionment Board, both appointed by the Minister for Agriculture. The Government has for some time been considering the formation of a national water authority to take over most water development and conservation functions, but a final decision is being deferred until the performance of the recently revised organizational structure can be adequately assessed. There are seven Provincial Water Advisory Committees, one for each Province, and six Regional Water Boards, each concerned with a major natural drainage basin and responsible for making recommendations to the Water Resources Authority and Water Apportionment Board. Several other Ministries are also concerned with water development: Health, Co-operatives and Social Services (Community Development Department), Local Government, Lands and Settlement (Town Planning Department), and Economic Planning and Development.

13.5. The Water Development Division is responsible for implementing the Government's water policies, but works with the other Ministries and Departments concerned, as well as local authorities which do not have sufficient staff for planning and carrying out water projects. The Division also designs and constructs new supplies and additions to existing supplies for public and Government institutional water systems, undertakes water operations for the Range Development Programme, and operates and maintains the 156 local authority and institutional water systems for which it has been designated as water undertaker.

Water Policy

13.6. The major elements of the Government's water policy for the Plan period are—

(i) to undertake a vigorous expansion of water installations in the rural areas, for both human and animal husbandry needs;

(ii) to ensure that the growth of urban water systems is sufficient to meet demand;

(iii) to improve the state of knowledge of the country's water resources and hydrology, and to develop adequate long-term master plans for urban and rural water development.

13.7. The achievement of these aims involves a tripling of investment in water supply installations over the Plan period, from about K£1.8 million in 1969/70 to some K£4.1 million by 1973/74, with total investment being over K£16 million. The annual expenditures planned over the next five years are set out in Table 13.1.

Development Expenditure on Water Supplies

Table 13.1 K£'000

	1968/69 (est)	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Total
Central Government..	450	931	1,348	1,630	1,927	2,374	8,210
Municipalities ..	897	810	1,220	1,920	1,970	1,620	7,540
Other Local Authorities	34	40	45	50	60	70	265
Totals	1,381	1,781	2,613	3,600	3,957	4,064	16,015

Most of the rapid increase will result from accelerating the rural water supply programme, including range water development. The other major element in the programme is a large project at Chania-Kimakia-Thika to augment the water supply for Nairobi, which accounts for almost 90 per cent of the investments by the seven municipalities combined. It is not expected that projects carried out by other local authorities will increase substantially, due to shortage of funds and technical personnel, but specific additional needs in their areas will be met directly by the Water Development Division.

13.8. The increased emphasis on rural water development can be seen in more detail in Table 13.2, which shows the major heads of Central Government water development expenditures. Expenditures on rural supplies are programmed to grow from K£0.5 million in the first year to K£1.9 million by the fifth year. While investment in rural supplies was only 34 per cent of Government expenditures in 1968/69, it rises to 57 per cent in the first year of the Plan, and to 80 per cent in the fifth year, with an overall average of 72 per cent.

13.9. The rapid build-up in the national water supply programme will be carried forward through four major elements: a reorganized and expanded Water Development Division; the development of a master plan for project identifications and priorities; direct construction by Government teams as necessary; and improved financial procedures for development and operation of water projects.

13.10. Intense efforts will be directed to strengthening the organization of the Water Development Division, which is presently below authorized levels in the upper and middle grades, so that it can handle the rapidly increasing volume of project work, especially in rural areas. It will be enlarged to provide sufficient staff to deal with both the operation and maintenance of urban and rural water schemes, and in divisional headquarters to do the planning, design and construction of new schemes and additions. A planning section is also being formed at Headquarters to work on long-term water development plans. Altogether there will be a 20 per cent increase in the number of posts, which will add some K£130,000 to personal emolument costs with perhaps another K£70,000 being required for other costs.

13.11. Water teams are to be set up in most districts. Five already exist, while ten more are now being formed. About 25 in all will be needed when the water development programme hits full stride. A team will typically consist of a water officer, two artisans, necessary skilled and unskilled casual labour, a clerk, and drivers, and will have the required equipment and transport to perform their duties of minor construction and installation work, maintenance and operation of water supplies, and surveys. Some teams will serve two or more districts.

13.12. University-level training for engineers will be expanded, but even so, it is estimated that the increased supply will not cover the Division's requirements until the late 1970s. Meanwhile, the necessary posts will have to be staffed through the employment of expatriates. At the technician level, the Division's requirements for Technical Officers and Inspectors will at first also need to be supplemented by external recruitment but by the end of the Plan period, staff needs in these categories will be met from the output of the recently completed Water Development Division's Training School.

13.13. The project content of the development expenditure outlined in Tables 13.1 and 13.2, has been identified specifically for the first two Plan years, and projects for the remaining three years will be filled in rapidly as the advance planning and project preparation work picks up momentum. This five-year programme will form the first part of a national long-term Master plan for rural water supplies, for which assistance will be sought from the United Nations Development Programme. Municipalities have prepared specific projects for additional water supplies during the first two years of the Plan and, in the case of Nairobi, for the entire Plan period. Projects designated as "Urban Water Supplies" in Table 13.2 have until now been identified on an annual basis by the Water Development Division, but will henceforth be increasingly subject to advance planning and specific priority designation.

13.14. The Government has committed itself to a much higher level of support for water development, particularly in the rural areas, than has been the case in the past. Government funds will, however, be combined with substantial external aid, and discussions are now in the final stage with a donor country for some K£1.5 million for the rural water supply programme during the first half of the Plan period. Municipalities will finance part of their water supply programmes from their own revenues, but part will be financed from the Local Government Loans Authority and, for large projects, from external lenders. County Councils will depend on the Loans Authority, modest grants from the Ministry of Health, and selp-help project financing involving contributions from the direct beneficiaries and some grants from the Community Development Department.

CENTRAL GOVERNMENT DEVELOPMENT EXPENDITURE FOR WATER SUPPLIES AND RELATED SERVICES

Table 13.2 K£'000

Agency and Programme	1968/69 (est)	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Total
1. WATER DEVELOPMENT DIVISION							
Urban Water Supplies	150	173	210	250	300	360	1,293
Rural Water Supplies (incl. range water)	152	525	900	1,180	1,470	1,880	5,955
Buildings and Housing	5	35	100	75	50	50	310
Other (*a*)	68	122	70	75	75	60	402
Sub-totals	375	855	1,280	1,580	1,895	2,350	7,960
2. MINISTRY OF HEALTH							
Rural Supplies (*b*)	60	60	50	30	10	—	150
3. MINISTRY OF CO-OPERATIVES AND SOCIAL SERVICES							
Rural Supplies (*c*)	15	16	18	20	22	24	100
TOTALS	450	931	1,348	1,630	1,927	2,374	8,210

(*a*) Dam and borehole subsidies, small irrigation schemes, water resources surveys and miscellaneous.

(*b*) WHO/UNICEF demonstration programme administered in co-ordination with Water Development Division, to be phased out during the Plan period. About 60 per cent of the programme cost is borne by UNICEF, the rest locally.

(*c*) Administered by Community Development Department, in co-ordination with Water Development Division, and the Ministry of Co-operatives and Social Services' budget for self-help projects. The size of this programme for the Plan period is an order-of-magnitude estimate. Almost 90 per cent of total project cost has thus far been paid by beneficiaries, in the form of self-help labour and materials, and in cash.

Rural Water Supplies

13.15. Since Independence, development expenditures on rural water supplies—including range water but excluding self-help projects—averaged less than K£100,000 a year. This level of investment was far below what was needed even to keep up with population growth and water development has fallen behind other rural development activities, particularly agriculture, education and public health. Ministries and other authorities concerned with development normally assume water will be available for their development projects but it is apparent that the inadequacy of water supplies is now seriously hampering rural progress generally. In the arid and semi-arid regions, which comprise more than two-thirds of the country, water is the key resource for the life of the people and their stock, and the provision of better water supplies is an essential condition for improving standards of living. In many other areas, particularly at the Coast, in Eastern Province and Western Kenya, good potential agricultural land is not permanently occupied because there are no reliable water supplies. In areas of high agricultural potential, which already have dense populations, the need is for better distribution of water in order to keep pace with agricultural progress, especially dairy farming. Faced with a shortage of water, thousands of rural families have chosen to invest what are to them substantial sums for roof catchments and other special methods of augmenting their water supply. In many areas this has led to the spending of more money than the cost of a communal water system.

13.16. During the five years 1964-1968, the people completed more than 3,400 self-help schemes, comprising nearly 2,000 springs, about 800 wells, 400 dams and catchments, and 230 piped water supplies. There has been an increasing emphasis on piped systems, so that the average scheme value has been rising while total number of schemes each year has been declining. Through its Community Development Department, the Ministry of Co-operatives and Social Services has contributed about one-tenth of the total annual value, amounting to some K£15,000 a year. The volume of self-help water schemes is clearly indicative of the intense popular interest in the improvement of water supplies, but while this effort has certainly brought direct benefits to many thousands in the rural areas it has touched only a small portion of the need.

13.17. The inability to meet water requirements in rural areas has been primarily due to three factors—

(i) up till now, responsibility for developing and operating water supplies has rested with local authorities, most of whom have lacked the technical and financial resources for this work;

(ii) terms of financing water schemes have not been sufficiently flexible to take account of local conditions, while development funds for water projects have been insufficient;

(iii) there has been a continuing shortage of skilled manpower and an inadequate central organization for water development.

13.18. In view of these past obstacles, the Government will adopt a new approach to rural water development, involving major changes in policies, financing and organization. The ultimate objective is the provision of water to all the rural population, although the size and cost of the task will necessitate a programme extending beyond this Plan. The initial programme, to be carried out by the Water Development Division, will be to provide communal water supplies at spacings appropriate to the areas in which they are placed. However, these schemes will be constructed with piping of sufficient size to carry the higher volumes which will be required as individual connections are installed by consumers at their own expense. The first stage of the intensified drive for rural water development consists of some 135 water schemes, ranging from simple rock catchments to wells, boreholes and piped supplies of both gravity and pumped types. Although the aim is to achieve a balanced distribution of water facilities throughout the country, this does not mean that each district will receive an equal share by value. Population density, the local need for water and the potential for utilizing the water will be the determining factors.

13.19. The schemes in this first stage have originated from local pressures for water supply installations. In many instances, effective self-help groups have been involved and are ready to assist in the installation. The projects have been cleared through the District and Provincial Development Committees as well as the provincial water advisory committees, and priorities

Table 13.3

RURAL WATER DEVELOPMENT PROGRAMME FOR FIRST TWO YEARS OF PLAN PERIOD
(Excluding Range Water Programme)

Province	Small Projects (less than K£10,000)			Large Projects (K£10,000 and over)			All Projects		
	No.	Cost (K£)	Families Served	No.	Cost (K£)	Families Served	No.	Cost (K£)	Families Served
Coast	10	31,000	3,710	3	147,000	7,600	13	178,000	11,310
Central	2	11,000	1,650	5	238,000	9,050	7	249,000	10,700
Eastern	8	28,000	3,350	5	212,800(*a*)	14,600	13	240,800	17,950
Rift Valley	19	77,000	4,750	3	66,700	9,100	22	143,700	13,850
Nyanza	3	20,000	1,200	4	185,000	11,100	7	205,000	12,300
Western	—	—	—	3	81,000	4,200	3	81,000	4,200
North Eastern	20	80,000	4,200	—	—	—	20	80,000	4,200
TOTALS	62	247,000	18,860	23	930,500	55,650	85(*b*)	1,177,500	74,510

NOTE.—

(*a*) Including K£100,000 Tuuru project in Meru District, assisted by a K£90,000 external grant.

(*b*) A number of the larger projects include several schemes; the total number of schemes is 135.

have been assigned for individual schemes, as well as group phasing for the 135 schemes as a whole. There are 23 large projects (K£10,000 and over) costing a total of K£930,500 and serving 55,000 families, while 62 smaller projects will cost K£247,000 and serve nearly 19,000 families.

13.20. Although there is a longer-term need to provide safe water, so that water-borne infections and diseases can be checked, the finance available will not permit the addition of treatment facilities excepting the most simple and inexpensive types, suitable only for small volume supplies at this stage. The design of water systems will, however, provide for the later addition of treatment facilities, and intensive efforts will be made, as the programme progresses, to increase available funds for water development so that safe water can be increasingly provided to the rural population.

13.21. The first 135 schemes which make up the initial stage will be completed in the first two years of the Plan. However, during these two years, Government will plan a long-term national programme which will guide rural water development in the subsequent years. The Master Plan for water development will assess potential demand, determine criteria for scheme selection, design standards, identify projects and schedule priorities, establish firm programmes, and forecast requirements for finance and manpower. Except technical help to supplement the resources of the Water Development Division will be sought for this purpose.

13.22. The details of implementing the new approach to rural water development are still being worked out by an Interministerial Committee but the procedures finally adopted will probably be along the following lines:—

(i) Approved water projects will be brought to final design stage through a joint consultation process involving the Water Development Division, the Ministry of Economic Planning and Development, the Ministry of Health, the Community Development Department, the Town Planning Department, and the local people themselves, either in the form of a water user group or through their local authority.

(ii) The capital costs will be met from a combination of Government funds and local contributions of cash, materials and labour. The area to benefit will be encouraged to raise the maximum contribution towards the installation cost, consistent with the local economic situation.

(iii) Except for the simplest types of non-piped systems, where it is impractical to collect charges, the Water Development Division will charge for all water. The charge procedure will depend on the way in which the local people have organized themselves for the purpose, but the Water Development Division will not charge individual consumers directly, unless their consumption is metered, which will only occur where the consumer has paid for an individual connexion. In most cases, the Water Development Division will charge a local user organization on a flat rate basis for the group as a whole and the organization will be responsible for collecting from members and paying the Water Development Division on time. Where the number of consumers is large enough to justify the necessary operating costs, as in the larger rural centres, water will be sold from kiosks at a set price per unit volume. For all types of distribution arrangements, failure to pay the water bill on time will be cause for the water supply to be cut off but proposed charges and collection procedures will be agreed with the consumers before the system is installed.

(iv) Since the delivery capacity of each system will be larger than the initial consumption, water charges will at first be on a flat rate basis per month, regardless of the volume taken. This should encourage use of water and maximize the benefits of production increases, family health and hygiene. As consumption approaches system capacity, the installation of a meter at each water point will be considered, so that water can be charged on a "volume used" basis. But before then, the initial schedule of flat water rates will be based on two factors: average cash incomes and the estimated increased income realized from the use of the new water supplies. The annual flat rate will be a reasonable proportion of the estimated benefits, but scaled according to family cash income, and wherever possible will be set to cover the full cost of operation, maintenance and amortization including interest. It is expected that the minimum flat rate will be Sh. 1/50 per family per month, rising to a maximum of Sh. 6 for cases where cash income and realized benefits are highest. The rate will be set initially on the basis of preliminary surveys of the area served, and will be somewhat lower than the rate assigned for the particular set of income/benefit conditions, to allow for incomplete information and to give families a more gradual introduction to the payment system. Within two to three years a more accurate appraisal of incomes and benefits will be made and the flat rate adjusted upward, but still subject to later reviews. Every effort will be made to have the charges cover at least the costs of operation and maintenance in all cases, but even this target will be temporarily waived in the lowest-income localities until the impact of water benefits, coupled with general improvement in economic conditions, brings incomes up to where the charges can be raised.

(v) The Water Development Division will work in close co-ordination at the local level with the Administration, Health Inspectors and Community Development Officers, to generate local support and participation in water schemes, supervise their operation and maintenance, and assist with the problems of local organization and water rate collection.

13.23. In addition to the Government's rural water programme, specifically orientated to rural communities of all sizes, the Range Development Programme of the Ministry of Agriculture covers the installation of water supplies for livestock which will in most cases also be usable by families in the vicinity. These installations will be administered by the Water Development Division's Range Water Section and will cost a total of K£551,000 over the Plan period, beginning at a level of K£224,000 in the first year and tapering off to K£75,000 by the fifth year.

13.24. The Government's settlement programme will also involve new water supplies schemes: 10 settlement schemes already have water schemes in operation; 22 will be carried out during 1969-72; and another 23 will be implemented by mid-1974. It is estimated that some 12,000 families will be furnished with water in these 55 settlements.

13.25. Self-help activities will contribute substantially to improve water supplies in the rural areas. Elsewhere in this Plan it has been estimated that the total value of all self-help projects may well reach K£20 million over the period (Chapter 7). Water schemes accounted for about 4 per cent of all self-help activities over the period 1964-68, but this proportion is expected to be higher during the new Plan. The total value of the various types of schemes (piped supplies, springs, wells, dams and catchments) the people will build during the Plan period could reach K£2 million. Every encouragement will be extended to these efforts by the rural population, and wherever feasible the Water Development Division's technical field staff will work with Community Development officers in promoting and assisting projects.

Services Related to Water

13.26. The Water Development Division is also concerned with a number of other aspects related to water, including continuous hydrological survey work, sewerage, drainage, minor irrigation works, land reclamation, flood and coastal protection and water pollution. However, development expenditures in these sub-sectors have not exceeded K£100,000 in any year and, as Table 13.2 indicates, are expected to average only about K£80,000 a year during the Plan period (the exceptionally large total of K£122,000 for 1969/70 is due to heavy expenditures in that year for the Yala Swamp Reclamation Project). The Division's functions in these fields are co-ordinated as necessary with other Ministries concerned, primarily the Ministry of Works.

13.27. The most rapidly growing needs for sewerage facilities—the most important of these services—continue to be in the urban concentrations. Several of the seven municipalities are planning and carrying out sewerage programmes on their own, while those without the technical staff to do this are relying on consulting firms. Some assistance is being extended to other urban centres by the Water Development Division and the Ministry of Works, to the extent that staff resources and budgetary resources permit. The Division's assistance in this field will be expanded in the future to keep pace with the demand for its services.

13.28. Although development expenditures for sewerage for the Plan period will be significant, precise figures are not available except for the municipalities, and then only for the first half of the period. However, Table 13.4 represents estimates for the five years.

DEVELOPMENT EXPENDITURES FOR SEWERAGE

Table 13.4 *K*£'000

	1968/69 (est)	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Total
Municipalities ..	245	680	630	730	710	590	3,340
Other Local Authorities	20	150	160	180	210	250	950
Totals	265	830	790	910	920	840	4,290

13.29. Municipalities will finance some of the necessary investment in sewerage facilities from internal resources but a substantial part will have to be covered by loans from the Local Government Loans Authority, perhaps supplemented by external aid for a few of the larger projects, as in Nairobi and Mombasa. Facilities installed in smaller urban areas will in most cases have to be financed entirely by loans from the Local Government Loans Authority, since few County Councils, under present circumstances, have any resources of their own for development projects.

CHAPTER 14—TRANSPORT AND COMMUNICATIONS

The Transport System and Public Policy

Kenya has an extensive transport system including road, rail, coastal and inland water and air. The road network is composed of 40,000 kilometres of minor, secondary, primary and trunk roads. Expenditures on roads and bridges in Kenya have increased at a rapid rate in the past decade, and the rate of increase will be even higher in the 1970-1974 Plan period, with the total for the period to exceed K£43 million. The programme will increase the mileage of bituminized roads with many others being brought up to gravel standard. The Railways system offers passenger and freight service from Mombasa through Nairobi and Nakuru to Kisumu and Eldoret and to points in Uganda and Tanzania. Other Kenya towns not located along the main line that also have rail service are Butere, Kitale, Nanyuki, Nyeri, Thika and Thompson's Falls. Nairobi is served by one of the major international airports of this continent with 22 international airlines providing scheduled service to various points in Africa and to Europe, Asia, Australia and North America. Scheduled air service is also provided by East African Airways to Mombasa, Malindi, and Kisumu, and to Entebbe and Dar es Salaam. Wilson Airport, with more aircraft movement than any other airport in Africa, and the other airports and airstrips throughout the country provide easy access to various tourist and business attractions long distances apart. Inland water service on Lake Victoria is provided by East African Railways and wagon ferries link the rail systems of the three East African countries. Coastal shipping is available to Mombasa, Kilifi, Malindi and Lamu, and to Tanzanian coastal ports including Tanga and Dar es Salaam. Mombasa has one of the outstanding natural harbours of the world with space for growth and expansion far beyond anticipated needs for many years ahead. Kenya has reached a stage in history when its entire transport network and that of East Africa are being co-ordinated into a modern system of all modes of transport. A study will be made to examine the feasibility of an oil pipeline from the Coast to Nairobi and points west and on to Uganda.

14.2. The transport system has to support the growth and development of agriculture, commerce and industry with efficient movement of people and goods throughout the country. In meeting this objective, the system has to assure the availability of fast, safe and economical transport service that is responsive to the needs of a growing and changing economy and to enhance economic and social growth consistent with the broader national goals. Transport decisions have a significant impact on the quality and character of community development, including the locational patterns of economic activity.The transport system should contribute toward an efficient allocation of productive resources through the stimulation of expanding production in the agricultural and industrial sectors, development of rural and urban markets and should enable people to travel as they wish to satisfy their individual desires and to attain preferred regional distribution of population, industry and incomes. Improvements in the system through efficiency, speed and scope of the network enable human and material resources to be transferred more rapidly and effectively where they can be employed. The movement between producing and consuming centres and between rural and urban areas permits increased productivity in the agricultural sector and creates and supports an awareness of the development potential of the country and its various regions.

14.3. A developing nation has a distinct advantage over highly industrial nations in its ability to make rational choices of the composition of its transport system. The choices include the extent of development of each mode to provide the most effective support for the broad national objectives. The system can include several or all of the basic modes of surface and air transport depending upon the needs of the country and its various regions. Railways are especially well suited to long-distance bulk shipments of many commodities, and Kenya has a variety of commodities moving great distances over the Railways. Road transport serves a wide variety of movements of people and goods with great flexibility of volume, time, distance and routes, and has a particular advantage in Kenya where problems of gauge, gradient and curvature limit the safe operating speed on rail. Through continued development of the highway and road network, road transport of both passengers and goods will continue to advance rapidly. Water transport can be developed to serve the nation through overseas shipping and anticipated growth in coastal trade and on Lake Victoria. Air transport provides international and regional travel of passengers and is of special importance to the tourist and commercial development of the country and offers promise of greater growth and development of air freight traffic to international markets.

14.4. The transport sector of a developing nation makes one of the heaviest of all claims on the available investment funds. Therefore, careful decisions involving alternative investments in the system and in other sectors of the economy are essential. Each decision, because of its importance of the functioning of the entire national economy and because of the costs involved, demands great care to assure the maximum contribution to the growth and development of the entire nation. To serve this objective, and East African Transport Study, approved by the three East African Governments in 1967, was conducted with the final report completed in August 1969. The purpose of the Study was to advise the East African Governments on the policies and measures necessary to co-ordinate the use and development of the various modes of surface transport in, among and through the three countries, so that resources devoted to such transport will be used in the most efficient manner. The basic recommendations of this Study falls into two broad categories:—

(1) The termination of restrictive licensing of goods vehicles moving by road, both internal within Kenya and Tanzania and inter-territorial.

(2) The granting of greater flexibility and commercial freedom to the East African Railways Corporation, particularly in determining rates.

14.5. Progress has been made since the time when the railways provided the only available mode of long distance travel for both passengers and goods to the present when road and air travel are offering increasingly effective competition for much of the traffic. Therefore, co-ordination within a complex system has become a matter of urgency for important policy decisions by the Government during the 1970-1974 Plan period. The Government is engaged in a broad programme of improvement and expansion of its transport system, a programme that is costly in terms of money and resources. It is designed and is being executed with the expectation that equally imaginative and vigorous ventures will be forthcoming in the private sector, which is sure to benefit from a progressive and modern transport system. Investment in transport and communications has risen in recent years, and the forecast is that it will increase to K£26 million in 1974 from a total of K£16.7 million in 1967.

14.6. Therefore, the Government supports the continued development of an efficient, dynamic and flexible, transport system as being vital to the economic growth, expending productivity and general progress of the nation. The efficiency and effectiveness of the system influence the cost of every commodity consumed or exported and thereby affect business. economic and industrial opportunities of every citizen. It is the intention of the Government that investment or capacity in both the total transport system and within each mode will be neither substantially above nor substantially below that required to meet these objectives. It is fully recognized that chronic excess capacity involves misuse of economic resources needed in other vital sectors of the economy, but it is equally important that the lack of adequate capacity jeopardises the nation's progress. The resources provided for transport services are to be used in the most effective and efficient manner possible, which means that users of transport facilities are to be encouraged to use the mode which provides the services they need, at the lowest cost to the economy. It is equally important that service be expanded to meet the demand and enhance the economic and social development of the entire country.

14.7. In support of the broad objectives of national policy, the Government favours such modifications in the Railways tariff structure that will permit rates and charges to reflect the costs incurred in rendering the service. Through adhering to this policy, the Railways will be permitted and expected to price their services so as to stimulate development of the kinds of transport service for which the Railways have a distinct inherent advantage. Also, those services which are not best suited to the Railways will be provided by another mode of transport.

14.8. A further policy of the Government is to progress toward greater freedom in licensing of road hauliers of goods as rapidly as the road system will permit and as is consistent with public safety, road design standards and enonomic types of transport units. It is recognized that the number and size of vehicles on the roads are important in assuring that the road system will not be over-crowded, leading to undue safety hazards or damage to the road system. As the agricultural and industrial sectors of the nation expand, both in quantity of production and in broadening of geographical areas, flexibility in the transport of goods is an essential element in the economic development of the entire country. This flexibility will be enhanced through a specific policy of encouraging Kenya citizens to participate more fully in the growth and development of the motor transport industry. In order to assure that road transport of goods proceeds in an effective and expeditious manner, the Government will encourage the establishment of commercial training schools and organizations for training mechanics and others who will assist in the development of a sound road transport industry. Priority will be given in the licensing of motor transport operators to those who serve areas not adequately served in the past. The inherent advantage of flexibility in size of vehicles and routes over which they operate will open the way for service to places in the country-side that have formerly been neglected. This will enhance the economic and social development of these areas and will serve as a stimulus to them in assuming a more vital role in the overall progress of the country.

14.9. As the road system is further developed, passengers will travel in ever greater numbers by buses,. taxi cabs and private cars. No longer are they limited to points adjacent to the Railways lines. The Government will continue to encourage further development of low cost passenger transport by road, with special emphasis on extension of service into areas not formerly having the service or having it on an unduly limited basis.

14.10. It is further recognized that in a modern nation, civil aviation is an increasingly important means of transport. The country is fortunate in having scheduled services by East African Airways to Kisumu, Malindi, Mombasa and Nairobi. With the long distances between various places in the country, charter and private air services have for several years been an important means of travel. It is the policy of the Government to support the continued development of this service consistent with the general economic and social development throughout the country.

14.11. While Kenya does not have an extensive inland and coastal waterways system, service along the Coast and on Lake Victoria is an important means of transport; and development of this service will be encouraged as rapidly and to the extent that is feasible. Increasing interest is being shown in the development of trade and fishing in the Indian Ocean. As this progresses, coastal traffic will expand and become a more important element in the total national transport structure.

14.12. In summary, it is the policy of the Government, recognizing that the country has moved from a monopolistic to a competitive transport scene, both to permit and encourage each mode of transport to offer the service for which it is peculiarly capable of providing. This will enable the Government and the people to have an effective, efficient and modern transport system, one that is dynamic and responsive to the changing needs of the country. In order to reach a sense of perspective over a rather long period of time, a tentative pattern of the future transport scene in the country might be useful. Beyond all doubt, the Railways will continue to be the prime mover of long distance bulk freight. The time is approaching when bulk oil products will move from the Coast by pipeline. Road hauliers will be the principal movers of small shipments for both long and short distances and virtually the exclusive movers of goods between places not located adjacent to existing or new rail lines. Like passengers throughout the world, those in Kenya will prefer to use private cars and buses in ever greater numbers. Bus services can reasonably be expected to develop along a variety of patterns. The short-distance routes between points relatively close together will continue to account for the greatest volume of inter-town traffic. Faster service will be needed between the major towns, and such a service will enable passengers to travel between the towns in less time than by rail, without having to move at unduly high speeds. Another type of service will be through the rural areas permitting the people to travel safely and quickly to and from the major towns. With buses being small units of operation and with their flexibility in regard to time, size and place of travel, rural and small town service can be developed and expanded to meet the needs and desires of people in the rural areas.

14.13. Civil air service has grown rapidly in the recent past, and this is expected to continue even if the rate of growth declines over time. With new developments in types of aircraft and the growing demand for both business and pleasure travel, air service will remain an important element in the transport system. Water transport will develop to a much greater extent than it has in the past. Coastal travel has an especially bright future, as business and pleasure fishing expand along the Coast and other products move in greater quantities. Likewise, traffic on Lake Victoria will increase in response to expansion in the tourist and fishing industries and other traffic, including expanding international trade as a consequence of the East African Common Market. There is always the possibility that new water craft particularly suited to lake and river traffic will be developed.

Roads

14.14. The Road Development Programme provides for a rational network of roads to serve the development needs of all Provinces and Districts in the country. In accordance with Government policy, major emphasis is being directed toward feeder and other minor roads in the rural areas. New roads will be built to open up areas where no road communications exist.

In other areas, the roads are to be improved even though the present level of traffic does not alone justify the required expenditures on the same basis as for trunk roads. The total road programme for the 1970-1974 Plan period calls for expenditures exceeding K£43 million, based on 1967 prices. The division of expenditures among the various road classes is 34 per cent for feeder roads, 20 per cent for special development road projects and 46 per cent for trunk roads. This division provides a rational balance among the road classes, recognizing the necessity of upgrading many existing bitumen trunk roads that are heavily trafficked and the broader needs of having the entire road system adequately serving a primarily agricultural economy. Improvement of many of these roads can be of lower standard, in general, than the heavily trafficked roads as the traffic flows are low and the lengths are great. The programme for the Plan period includes approximately 4,700 kilometres of high cost and 4,500 kilometres of low cost or special development roads.

14.15. The road programme is presented in two ways. It is divided into 30 items with each classified in a manner suitable for financial planning and works execution and also by Provinces and Districts. All of the projects have been justified on a preliminary basis. All that have actually been started, or are to be started within the first year of the Plan, have been justified on a total road cost/discount cash flow basis. Proposals from District Committees have been investigated, and all roads in the development programme have been inspected on site. Appraisals of the final justifications have been made at District, Provincial and Ministerial levels. Although major changes in agricultural or urban development could affect the broad outline of the road programme, it is designed to represent the immediate requirements of the country and those of the foreseeable future.

14.16. Because of the necessity of planning the road construction by stages, the secondary and minor road networks must be re-assessed in order to predict the types of construction that will ultimately be needed for the different routes. This will actually involve the reclassification of virtually the whole road network. The reclassification is now in process and has been completed for many of the roads specifically designated for improvement during the period of the 1970-1974 Development Plan. Emphasis on developing secondary and minor roads has been directed toward minor roads and economic development projects, such as tea and sugar roads and on the especially important secondary roads which serve agricultural districts and lead into trunk routes or urban areas. These particular secondary roads will ultimately be improved to bitumen roads of high standards as they will encounter heavy and growing traffic. Trunk roads will become very densely trafficked, much of which will be heavy trucking traffic. Those with the greatest traffic volumes will become dual carriageways with strong pavements constructed to geometric standards suitable for heavy vehicles and very high traffic flows. At the present time, the secondary roads group is too broad, ranging from trunk to minor track. The proposed reclassification is illustrated as follows:—

Existing Classes	*Approximate Future Classes*
Trunk	Trunk
Secondary	Primary
	Secondary
Minor	Minor
Unclassified	Unclassified

It should be noted that the exact boundaries of the new classification will not coincide with those of the existing system and that the new road types have not been named. The reclassification is to be completed in 1969, after which, new Kenya road maps will be produced.

14.17. In recent years the Ministry of Works has executed about 30 per cent of the final design of the roads, with the other 70 per cent being handled by Consultants. It is the intention of the Ministry to increase its portion of the design work to at least 50 per cent. This, however, will require additions to the Ministry's professional staff, as the total work load will be increasing along with the larger percentage of the total. During the last several years, expenditures on road and bridge construction have increased rapidly. A substantial portion of these works were executed by contracting firms, both local and international. During this time, overseas international firms have been demonstrating increasing interest in road construction work in Kenya. More intensive competition can be expected because of greater use of large contracts. The Ministry is particularly conscious of the importance of scheduling the volume so that the contracts will remain at a relatively constant level with a gradual increase over time. This provides for stability and continuity for established contractors and serves as a basis for an atmosphere of effective competition. All of these factors have been considered in designing the programme so that a sound contracting industry can be developed and maintained at the same time the road system is being extended and improved.

14.18. All contractors operating in Kenya are required by law to be registered in this country. However, other international contractors are included along with those registered in Kenya, as part of the full list of available contractors considered by the Ministry of Works. The Ministry maintains an up-to-date history and financial standing of all prospective contractors with special emphasis on the size of jobs each might undertake. The forecast by the Ministry indicates that the capacity for road and bridge building during the Plan period is adequate to meet the requirements of the entire road programme. The contract work load is being increased in a systematic manner to encourage local contractors both large and small to participate actively in the expanding road programme and to avoid increases in construction costs that inevitably occur when there is a lack of capacity within the construction industry. The policy of the Government is to avoid increases in costs as much as possible to get the greatest number of kilometres of new and improved road from the development expenditures.

14.19. This programme has evolved over a considerable period of time with much thought and analysis. It is both imaginative and ambitious and was designed with a thorough awareness that unlimited access roads in the early stages of development of a nation or region will induce the local citizens to take advantage of new economic potentials unfolding in their regions. Because of the high degree of accessibility of new and improved roads, new enterprises with relatively small and inexpensive units of capital (lorries, buses and cars), under independent ownerships can be developed and operated successfully. In fact, this is one of the most promising fields for new small businesses, as there is little need for foreign ownership among transporters of freight by road. Furthermore, the greater number of small local businesses provide useful experiences in management that can be widely shared and readily grasped. Repair and maintenance of motor vehicles are not technically difficult and can be learned relatively quickly and easily by many people over the entire country, thereby avoiding the necessity for concentration in a few towns. The ability to transport small shipments efficiently is especially important in the early stages of economic development of rural areas, where trading tends to be highly individualized and sales are in small units. Broad participation by several or even many operators in the motor transport industry assures effective competition so that cost reductions will be passed on to transport users, many of whom will be small and at the early stages of developing their businesses. Road transport offers greater potential for involving more people in a wider variety of economic ventures than will any other form of transport investment.

14.20. As the road network is further extended and developed, necessary maintenance becomes a growing and increasingly urgent problem. Currently, the level of maintenance of many of the roads is insufficient to be considered as being satisfactory. However, the Ministry of Works is seriously studying the entire problem of road maintenance, including the division of responsibility between the Government and the local authorities. Because of the rapidly growing and broadening responsibilities of the Ministry of Works involving construction and upgrading of new and existing roads along with the growing maintenance responsibilities over the entire system, a consulting firm has been engaged to study the organization of the Ministry. The final report is expected late in 1969, as the Draft Final Report was submitted in June 1969. Should the existing staff levels of the Ministry be maintained and the Reorganization Study recommendations receive a favourable response, the Roads Branch and the others of the Ministry staff will be capable of meeting the demands of the further growth of the construction and maintenance loads. No substantial staff changes are anticipated before early 1970, when there will have been adequate opportunity to evaluate and implement the recommendations of the Reorganization Study. The Ministry of Works will assume

Estimated Development Expenditures: Roads Programme, 1969–1974

Table 14.1 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total 1969/74
1. Miscellaneous, Phase I (to complete)	26	11	—	—	—	37
2. Great North Road	455	—	—	—	—	455
3. Nairobi-Addis Ababa Road	878	825	1,032	636	—	3,371
4. Trunk Roads	—	—	—	—	—	—
5. Trunk Roads	1,490	865	—	—	—	2,355
6. Sugar Roads Phase I	322	—	—	—	—	322
7. Feeder Roads 1969/1972	738	2,260	1,916	310	—	5,224
8. Tourist Roads Phases I and II	470	616	81	—	—	1,167
9. Trunk and Major Secondary Roads 1972/76	—	—	—	1,395	3,220	4,615
10. Sugar Roads Phase II	126	1,023	295	—	—	1,444
11. Fish Roads I and Voi-Wlindanyi	640	134	—	—	—	774
12. Fish Roads Phase II	—	—	406	103	—	509
13. Tourist Roads Phase III	42	—	74	207	193	516
14. Settlement Roads Phase I	310	217	90	—	—	617
15. Settlement Roads Phase II and III ..	—	—	—	510	476	986
16. Upgrading of Trunk Roads (Urgent Work)	189	—	—	—	—	189
17. Upgrading Phase I	885	1,606	698	—	—	3,189
18. Upgrading Phase II..	22	—	1,043	1,331	726	3,122
19. Upgrading Phase III	—	—	52	48	39	139
20. Tea Roads Phase III and II	25	24	—	689	966	1,704
21. Somalia Road	—	—	—	689	644	1,333
22. Rice Roads	369	—	—	—	—	369
23. Sugar Roads Phase III	42	40	391	723	676	1,872
24. Miscellaneous Phase II	421	632	738	—	—	1,791
25. Miscellaneous Phase III	25	79	295	276	258	933
26. Contributions to Municipalities	168	158	148	207	193	874
27. Contributions to Minor Townships ..	42	40	44	41	39	206
28. Consultants Design	210	221	221	207	193	1,052
29. Compensation	84	79	74	69	64	370
30. Upgrading—North Eastern Province ..	101	101	101	101	101	505
Other Expenditures	—	—	—	1,250	1,750	3,000*
Totals	8,080	8,931	7,699	8,792	9,538	43,040

*An additional K£3 million will be available for new programmes that might require special attention in the later years of the Plan period or to avoid delays in projects because of modifications in the general level of construction costs, with a total Roads Programme of K£43 million.

Road Development Plan, 1969–74—By Districts

Table 14.2 *Kilometres*

Province/District	Trunk Roads	Major Secondary Roads	Other Secondary And Minor Roads	Total
Coast				
Taita	42	16	—	58
Mombasa	10	—	—	10
Lamu	—	5	—	5
Kwale	125	45	—	170
Kilifi	—	70	20	90
Tana River	—	—	—	—
Total—Coast	177	136	20	333
N. Eastern				
Garissa	100	65	—	165
Wajir	—	65	—	65
Mandera	—	—	—	—
Total—N. Eastern ..	100	130	—	230

ROAD DEVELOPMENT PLAN, 1969-74—BY DISTRICTS

Table 14.2—(*Contd.*) *Kilometres*

Province/District	Trunk Roads	Major Secondary Roads	Other Secondary And Minor Roads	Total
EASTERN				
Machakos	32	127	—	159
Kitui	172	—	—	172
Embu	61	69	—	130
Meru	98	95	—	193
Isiolo	14	—	—	14
Marsabit	255	—	—	255
TOTAL—EASTERN	632	291	—	923
NYANZA				
Siaya	65	30	2	97
Kisumu	83	42	6	131
Kisii	52	145	8	205
Homa Bay	117	156	7	280
TOTAL—NYANZA	317	373	23	713
CENTRAL				
Nyeri	42	63	2	107
Murang'a	57	74	—	131
Kirinyaga	18	81	—	99
Kiambu	65	100	—	165
Nyandarua	47	—	—	47
TOTAL—CENTRAL	229	318	2	549
RIFT VALLEY				
Narok	117	58	5	180
Kajiado	132	25	—	157
Nakuru	157	188	23	368
Nandi	21	27	1	49
Kericho	161	—	4	165
Elgeyo/Marakwet	—	—	—	—
Baringo	—	85	1	86
Turkana	5	150	1	156
Samburu	119	—	—	119
Trans Nzoia	—	—	—	—
Uasin Gishu	169	—	1	170
West Pokot	—	30	—	30
Laikipia	—	—	—	—
TOTAL—RIFT VALLEY	881	563	36	1,480
WESTERN				
Kakamega	174	52	2	228
Bungoma	103	52	1	156
Busia	56	25	1	82
TOTAL—WESTERN	333	129	4	466
KENYA—TOTAL	2,669	1,940	85	4,694*

*In addition to the 4,694 km. will be about 4,500 km. of special development roads that are not divided by districts. Roads will be developed in every district.

full responsibility for the development and maintenance of all roads, with the exception of those within municipal areas, as indicated in Chapter 7. As the Ministry is assigned to this broader role, enlargement of its staff and maintenance budget will be essential. This will be done during the Plan period.

14.21. Table 14.1 presents a summary of the roads development programme with all of the projects grouped into 30 items or types of projects. The roads are listed by name for each of the 30 programmes in which specific roads are designated. For programmes such as 4 and 6 in which specific roads are not listed, brief explanations of the nature of the expenditures are given. Some of the projects included among the 30 items are virtually completed, while others are only in the early planning stages. However, the projects range over the entire period of the Plan, with the explanations indicating the general level of progress of each item. Table 14.2 indicates the Roads Development Plan by Districts. The number of kilometres of roads to be developed in each district is given, even though the precise number has not been determined for every one of the 30 items. For example, no specific number of kilometres is listed for the Mandera District; but item 30, with K£505,000 to be spent during the Plan period for upgrading North Eastern Province, includes roads in the Mandera District. Work on this particular project will be in progress during each year of the Plan period. In addition to the 4,694 kilometres of Trunk Roads, Major Secondary Roads and other Secondary and Minor Roads in Table 14.2, will be about 4,500 kilometres of Special Development Roads that have not been divided among the districts. These roads are tourist and other special purpose roads that are not designed to conform to the basic classification of the general roads system but are part of the Roads Development Programme. (*See* Table 14.1.)

14.22. The roads included in each of the 30 programmes listed in Table 14.1 are listed by name and programme.

PROGRAMME 1.—*Miscellaneous Projects Phase* 1

1/1 Miriu Bridge and Approaches.
1/2 Homa-Kamagambo.
1/3 Athi Bridge and Approaches.
1/4 Thika-Gatanga.
1/5 Mirikini Jetty road.
1/6 Tiwa Drift.
1/7 Kitui Township roads.
1/8 Garissa road (widening).
1/9 Kilifi Ferry.
1/10 Lugari Link road.
1/11 Fort Hall-Kangema.
1/12 Thika-Seven Forks.

Programme 2.—*Great North Road*

2/1 Athi River-Namanga.
2/2 Leseru-Tororo.

Programme 3.—*Nairobi-Addis Ababa Road*

3/1 Nairobi-Addis Ababa Roads.
3/2 Isiolo-Lewa (bituminization).

Programme 4.—*Trunk Roads*

This programme includes no expenditures during the Plan period, as the entire programme was completed in the 1968-1969 financial year.

Programme 5.—*Trunk Roads*

5/1 Timau-Meru and Embu Ena and Kutus-Kerugoya.
5/2 Ahero-Isebania.
5/3 Eldoret-Kapsabet and Kakamega-Broderick Falls.
5/4 Msambweni-Lunga Lunga.
5/5 3 Bridges Nyeri.
5/6 2 Bridges Eldoret.
5/7 4 Bridges Sotik.

Programme 6.—*Sugar Roads, Phase I*

Phase I of this programme is being executed and will be completed in the 1969-70 financial year. These roads serve the sugar area in Nyanza Province (Miwani, Chemilil, Muhoroni and Fort Terran).

Programme 7.—*Feeder Road Project*, 1969-1972

7/1 Ngombeni-Kwale.
7/2 Mwingi Br. and Approaches.
7/3 Maiyani-Nunguni.
7/4 Ena-Thuchi.
7/5 Meru-Nkubu.
7/6 Nyeri-Ihururu.
7/7 Fort Hall-Othaya.
7/8 Uplands-Longonot T'off.
7/9 Gilgil-Oljoro Orok.
7/10 Njoro-Mau Summit.
7/11 Njoro-Enangipiri.
7/12 Jamji-Sotik.
7/13 Kisii-Tinga T'off and Manga Link.
7/14 Homa Bay-Kendu Bay.
7/15 Kakamega-Mumias-Mayoni.
7/16 Mulwanda-Bungoma.
7/17 Kerugoya-Kagumo.
7/18 Kimwani-Nandi-Kapsabet.

PROGRAMME 8.—*Tourist Roads Phases I and II*

8/1 Kijabe-Narok.
8/2 Mara Area.
8/3 Tsavo.
8/4 Meru.
8/5 Aberdares.

PROGRAMME 9.—*Kenya Trunk and Major Secondary Road* 1972/75

9/1 Rosslyn-Limuru.
9/2 Banana Hill-Dagoretti.
9/3 Upper Limuru Road.
9/4 Kerugoya-Embu.
9/5 Kagumo-Karatina.
9/6 Thika-Kandera.
9/7 Nyeri-Othaya.
9/8 Nyeri-Ichagichiru.
9/9 Makutano-Tana-Sagana.
9/10 Tana-Embu.
9/11 Nanyuki-Timau.
9/12 Machakos-Makutano.
9/13 Thuchi-Nkubu.
9/14 Meru-Katheri.
9/15 Kiritiri-Kanja.
9/16 Manyatta-Embu.
9/17 Mariakani-Kilifi.
9/18 Mazeras-Kaloleni.
9/19 Kevale-Mrima.
9/20 Narok-Kisii.
9/21 Kisii-Kilgoris.
9/22 Narok-Enangyeri.
9/23 Nakuru-Subukia-Thompson's Falls.
9/24 Nakuru-Solai.
9/25 Baringo-Margat.
9/26 Marigat-Kabaret.
9/27 Yala-Busia.
9/28 Keroka-Nyangusu.
9/29 Rodi-Karungu.
9/30 Kendu-Paponditi.
9/31 Kisiani-Usenge.
9/32 Asembo Bondo-Ngia-Rangala.
9/33 Kapsabet-Charakali.
9/34 Broderick Falls-Kitale.
9/35 Suam-Endebess.
9/36 Maseno-Majengo.
9/37 Bumala-Sio Port.
9/38 Chwele-Bungoma.

PROGRAMME 10.—*Sugar Roads Phase II*

This programme is a follow-on to Phase I Sugar Roads (Programme 6). The roads are being completed in Nyanza Province.

PROGRAMME 11.—*Fish Roads Phase I and Voi-Wundanyi*

11/1 Lodwar-Ferguson's Gulf.
11/2 Voi-Wundanyi.

PROGRAMME 12.—*Fish Roads Phase II*

Further improvements will be needed in the Turkana District after Programme 11 is completed. The improvements will be concentrated along the Baringo-Lokoni-Lokichar-Lodwar route.

PROGRAMME 13.—*Tourist Roads Phase III*

The initial objective of this programme is to define the priorities for further improvements of roads in the National Parks, County Parks and to beach areas as required for the expansion of the tourist industry. Part of this phase of the Tourist Roads Programme will extend beyond the Plan period.

PROGRAMME 14.—*Settlement Roads Phase I*

This programme covers the construction of Access Roads mainly in the Kinangop, Ol Kalou and Sotik areas.

PROGRAMME 15.—*Settlement Roads Phases II and III*

The work of this programme will be in the last two years of the Plan period. The access roads included will be mainly those in the Uasin-Gishu areas and the following main roads: the Timboroa-Ainakkoi-Burnt Forest and the Ol Kalou-Durdori-Kabazi.

PROGRAMME 16.—*Upgrading of Trunk Roads (Urgent Works)*

This programme is for reconstruction of sections of trunk bitumen roads that have failed and need urgent attention.

PROGRAMME 17.—*Upgrading of Trunk Roads Phase I*

17/1 Thika-Kahawa (dual carriageway).
17/2 Kabete-Limuru.
17/3 Nairobi-Mombasa (parts).
17/4 Kericho-Mau Summit (part).
17/5 Senetwet-Ahero (part).
17/6 Mau Summit-Eldoret (part).
17/7 Fort Hall-Makuyu T'off.

Programme 18.—*Upgrading of Trunk Roads Phase II*

18/1 Leseru-Eldoret.
18/2 Sagana-Nyeri.
18/3 Ahero-Kisumu.
18/4 Kisumu-Kakamega.
18/5 Senetwet-Kericho.
18/6 Eldoret-Mau Summit (part).
18/7 Nakuru-Mau Summit.
18/8 Limuru-Nakuru (part).
18/9 Mombasa-Msambweni.

Programme 19.—*Upgrading of Trunk Roads Phase III*

No works expenditure is foreseen during the Plan period, but design work will commence prior to 1974.

Programme 20.—*Tea Roads Phases II and III*

This programme is to complete Phase II of the Tea Roads programme and to implement Phase III.

Programme. 21.—*Somalia Road*

The first and major section of this road between Kangondi and Garissa is included in the Plan period.

Programme 22.—*Rice Roads*

This programme is to improve the roads in the Mwea-Tebere rice scheme area.

Programme 23.—*Sugar Roads Phase III*

The roads of this programme are in the sugar growing areas of Western Province near Mumias and in the Coast Province in the Shimba/Ramisi/Mrima Area.

Programme 24.—*Miscellaneous Projects Phase II*

24/1 Kangondi-Kitui.
24/2 Dandora-Kangundo.
24/3 Bulbul-Ngong.
24/4 Nyamaya-Kabondo.
24/5 Homa Bay-Mbita.
24/6 Nakuru-Eldama Ravine.

Programme 25.—*Miscellaneous Projects Phase III*

The roads of this programme are to be those of low priority proposed by the District Development Committees. Financial limitations have prevented listing all of these projects, but the expectations are to incorporate as many as possible during the Plan period.

PROGRAMME 26.—*Contributions to Municipalities*

26/1 Nairobi and Mombasa.
26/2 Other Municipalities.

PROGRAMME 27.—*Contribution to Minor Townships*

27/1 Contributions to Minor Townships.

PROGRAMME 28.—*Design*

This programme is to cover the design costs incurred by Government, both through its own design organization and through the services of consulting engineers.

PROGRAMME 29.—*Compensation*

This includes compensation for land acquisition and the removal and reinstatement of public services resulting from the road development projects.

PROGRAMME 30.—*Upgrading of Roads in North Eastern Province*

This programme includes betterments to the existing roads in the North Eastern Province. These roads are in all of the Districts of the Province.

Kenatco Transport Company, Limited

14.23. Kenatco was formed in November, 1966, as Kenya's National Transport Company and has become one of the leading transport organizations in East Africa. Although it is a wholly owned subsidiary of I.C.D.C., it is an autonomous body operating on commercial lines in a competitive market. It is neither subsidized by the Government nor given special favours. No equipment is obtained duty free, and no special licensing concessions are granted.

14.24. Road haulage is the major function of Kenatco, and most of its expansion programme is directed toward this phase of its operations. Contracts exist with the East African Railways Corporation to supplement its haulage activities. Another contract is for transport of sugar along the Kenya coast to Mombasa. Another part of the programme has been the purchase of heavy articulated transport lorries for use on the Mombasa run and petrol tankers to move fuel in the western area of the country. Another very significant road haulage is the service to and from Zambia. Currently, a fleet of 36 vehicles operate into Zambia, primarily from Mombasa and Nairobi. Traffic is composed mainly of manufactured goods moving from small as well as from large exporting firms. On the return journeys, the vehicles carry copper from Zambia's Copperbelt to the port of Dar es Salaam. In the near future, the Company plans to introduce refrigerated trucks to transport meat, pork and pork products, dairy products and fresh fruits and vegetables to the Zambian market.

14.25. One of the Company objectives is to provide the road haulage needed by the agricultural industry throughout the country. Special attention will be given to the organization necessary for efficient movement of all types of freight: The Company is also responding to the problems of moving farm produce in areas where rail communications are relatively limited and where there is great dependence upon roads not yet tarmacked and are often damaged during periods of unfavourable weather. In addition, the increased productivity of cereal crops such as maize and wheat has intensified the problem of grain storage on the farms. Kenatco is serving the farmers by enabling them to send their crops to the nearest railhead as they are harvested.

14.26. An activity of Kenatco, not one of heavy freight transport, is the Kenatco Rent a Car service which began operating on 1st August, 1969. This is a joint venture between the Company and the Avis Rent a Car System, Incorporated, with each of the two companies owning 50 per cent interest. This service is managed by Avis International and provides self-drive and chaffeur driven cars and undertakes tour operations. These services are to enhance the growth and popularity of the tourist industry and to serve local and visiting business people.

14.27. A new heavy workshop has been opened in Nairobi, to service the vehicle fleet. Maintenance facilities to cater for all the major servicing requirements have been established in Nakuru, and a similar depot is planned for Mombasa.

14.28. Kenatco employs more than 600 people, many of whom are qualified technically and have reached the highest standards possible in their respective fields of employment. Encouraging local people to play an increasingly important role in commerce and industry is one of the basic Company objectives. In pursuing this goal, continuing emphasis will be placed on training, including comprehensive instruction on maintenance of road vehicles and on possible overseas training, as well as training provided by several local motor companies.

14.29. The dual role of expanding the motor transport industry and the training of local people to play an increasingly important part in the industry will continue to be the principal objectives throughout the Plan period. Special emphasis will be directed toward building up and operating the organization as efficiently and as effectively as possible. In view of the extensive expansion in 1968 and 1969, emphasis in the next several years will be on internal organization of the management and operation of the Company in order to consolidate its position before further large-scale expansion. A loan of K£150,000 was made by the Government during the 1969/70 financial year to aid in the purchase of buildings. The Company expects that the relatively small amount of additional investment will be financed with earnings from the existing operations. The recent expansion and future plans will enable Kenatco to provide the heavy transport road service needed by all parts of the country to support the broad scale expansion of economic activity.

Airports

14.30. Air transport has experienced extremely rapid growth in Kenya and in East Africa and can be expected to continue at a high rate of development for many years ahead. Improvement and extension of aerodrome facilities are especially important to enable civil aviation to perform effectively in such a rapidly growing industry. During the period from 1960 to 1967, regional passengers at the Nairobi Airport increased at an annual rate of 14 per cent. The overall annual rate of increase in the number of visitors to Kenya arriving by air during that period was 22 per cent. This growth in both regional and international traffic has been a result of the widespread interest of tourists in visiting this country. Increased popularity of the inclusive tour holidays and charter flights has been a major factor in the more recent growth in visitors.

14.31. Air freight and mail have also increased very rapidly in recent years and can be expected to continue their rapid expansion for many years. The "jumbo-jets" will provide considerable freight capacity on passenger planes, and pure freight service is expected to develop at impressive rates in the near future. By 1974, air freight could expand to the point that it will be almost as significant as passenger service. Much interest is being shown in expanded shipments of more products of Kenya and other nations and in the air freight rates that will stimulate this development.

14.32. Although the airport development programme must be planned over a period much longer than that of the 1970-1974 Plan, during this period expenditures of approximately K£7.4 million are anticipated. These will include major expansion and improvements at the Nairobi International Airport and at Mombasa and smaller expenditures at the Wilson, Malindi and Kisumu Airports and other airports and airstrips in many areas of the country. Additional navigational aids and other necessary facilities will be provided by the Directorate of Civil Aviation as the various projects are completed. Expenditures on the Nairobi Airport during the Plan period will be the first phase to be followed by further development in the later phases of the comprehensive development programme.

Nairobi Airport

14.33. The present Nairobi Airport was opened to traffic in 1958, which was the time that turbo-jet aircraft were being introduced. With the excellent facilities and favourable geographic location, it rapidly became a centre for international and regional traffic for East and Central Africa. Although the capacity of the Airport cannot be stated in absolute terms, it was originally designed to handle 200,000 passengers annually. In 1968, the number using the Airport was 824,000; and over the Plan period, the number is expected to increase to 1,700,000 by 1974.

14.34. In order to meet the needs of the continued unprecedented growth in traffic, a Consultant was commissioned to study and recommend a plan for the future development of Nairobi Airport. The Consultant's Report divided the expenditures into three stages, the first to be begun as early in the Plan period as practicable. A World Bank Appraisal Mission visited Nairobi in May, 1969, and studied the Airport Development Programme. They suggested interim improvements in the Passenger Building to increase its capacity to cope with traffic up to 1974, that the aircraft manœuvring areas be increased to accommodate more and larger aircraft and that the existing freight building be doubled. They also suggested that further studies be undertaken to establish a firm traffic forecast taking into account the effect of possible improvements to Mombasa Airport but that a new Terminal Complex together with adequate aircraft manœuvring areas be planned for completion in 1974. Additional safety and control devices, including navigational aids, improved airfield lighting, a new radar system and other improvements in ancillary buildings and services are part of the first phase to be completed during the Plan period. Over the next 20 to 25 years, additional expenditures of approximately K£20 million are recommended. The exact pattern of these expenditures will unfold over time, depending upon the future rates of growth in passenger and freight traffic and the designs and requirements of new aircraft that will be landing at the Airport. Even though completion of the work of the second and third stages will be well past the period of the 1970-1974 Plan, the basic programme for the Airport expansion and improvements must be prepared well ahead of actual expenditures. Another project directly related to the Airport expansion programme is a dual carriageway between the Airport and the City Centre. This will be necessary because of the greater numbers of passengers and additional freight that will move between the Airport and the commercial and industrial areas of the City.

14.35. Freight traffic at the Nairobi Airport, though not large in volume, has increased significantly in recent years. Although the rate of increase has been lower than the 19.8 per cent expected for the world rate, the increase in 1968 over 1967 was above the world rate. The Consultant suggested that international freight at the Airport will increase at an annual rate of 12.5 per cent from 1970 to 1976 and the rate for regional traffic will be 8.5 per cent for the same period. These estimates are virtually certain to be too conservative, if the "jumbo-jets" are landing at the Airport in large numbers during the Plan period. The large aircrafts will provide greatly expanded freight capacity on passenger flights. Also, pure freight service is expected to become less expensive and to increase considerably. The first "jumbo-jets" will be arriving in 1970 and 1971, and it is reasonable to anticipate that they will be flying in significant numbers from Western Europe to Nairobi by 1974. Therefore, plans to accommodate them by that time are essential, as failure to do so will impair the status of Nairobi as an international air centre. Studies are being conducted and efforts are being made to increase the volume of Kenya products loaded at the Airport. Also, greater numbers of products will arrive by air. Therefore, early construction of new freight facilities is rapidly becoming a critical necessity.

Mombasa Airport (Port Reitz)

14.36. The Mombasa Airport needs to be enlarged in order to handle the increasing traffic in the Coastal Area, especially the growing tourist traffic. An increasing number of tourists will wish to visit this area for many years in the future. Some of them will stop at Nairobi to visit the up-country and game parks. Others will prefer to go directly to the Coast. The average annual rate of growth in traffic from 1961 to 1968 was 8 per cent. Since this period is short and yearly fluctuations are pronounced, conclusions should be treated with caution. Yet it is well known that the number of visitors to Kenya is increasing, and the increase includes those to the Coast. Mombasa is becoming a major tourist distribution centre for resorts along the Coast as well as for other areas of Kenya and Tanzania. The larger aircraft arriving from abroad will be met by small craft engaged in both charter and regular service. Increased traffic by the inclusive tour charter flights is assured if the larger planes are able to land.

14.37. The present Terminal Building is completely inadequate for the number of passengers now using the Airport. Enlarged and improved facilities are required as a matter of urgency. A new study will be conducted early in the Plan period to determine the necessity to meet the needs of tourist traffic in addition to local and regional traffic. The report will make recommendations on the development of the existing site at Port Reitz or development of a new site in the vicinity to serve Mombasa and the Coastal area. Should another site be recommended, it must be considered as part of the general planning of the Mombasa area as a whole, giving due consideration to proposals contained in the transportation plans under study by the Ministry of Works. While the forecast of development expenditures during the Plan period must be tentative, a reasonable estimate is that they will exceed K£2.0 million.

Wilson Airport

14.38. The Wilson Airport accommodates more aircraft movements than any other airport in Africa with a total of 185,000 aircraft movements in 1968. Total expenditure for completion of the works now in progress and a small amount of additional work is K£136,150. The major portion of this expenditure is for bituminization of the runway and will be completed in 1970-1971. This does not include investment in building and equipment by the aircraft firms and businesses related to civil aviation with offices and other facilities at the Airport.

14.39. The heavy use of this Airport is the result of the great interest in general aviation. With the long distances and the growing interest of tourists in travelling, flying is an attractive and practicable method for tourists with limited travel time and for East African residents on business and pleasure trips. Wilson is also used for training purposes. Although training flights are not expected to increase as rapidly as tourist and business flights, training will remain an important function of the Airport. In recent years, private businesses have purchased planes for use in official travel by executives. With the increases of all phases of private travel, an annual growth rate of 8 per cent in aircraft movements is expected during the Plan period.

Kisumu Airport

14.40. East African Airways offers scheduled service to Malindi and Kisumu, as well as to Mombasa and Nairobi. Considerable improvement has been made at the Malindi Airport in recent years; and only expenditures of K£54,000 will be required during the 1970-1974 Plan period, principally for staff housing. The Kisumu Airport has been in need of improvement for the past several years. Much of the runway and one taxiway have only murram surfaces that are unsuitable for aircraft as large as the Friendships. Yet aircraft movements at the Airport have increased from 163 per month in 1965 to 430 in 1968. The Airport will be brought up to "Friendship" standard during the first three years of the Plan period. This will greatly improve air communications in that area of the country. The total cost for the runway, Terminal and other minor improvements is estimated to be K£177,800.

Other Airports

14.41. Expansion and improvement of the other airports and airstrips throughout the country must continue to meet the demands of tourists wishing to visit many places in Kenya and East Africa. It is essential that facilities be provided that are capable of handling safely and expeditiously the increasing numbers of tourists and business travellers. Several of the airstrips need special attention and others will be constructed during the Plan period. At Embu, the runway is both too short and too narrow. Lamu Island has no airstrip, and one is to be constructed to permit tourist and business travellers to fly from Malindi to the Island instead of having to go by boat from Manda Island. An all-weather airstrip at Ferguson's Gulf will replace the present airstrip, which is subject to flooding during the rainy season. Maintenance repairs will be carried out on the Wajir Airstrip. The length of the runway at Kitui will be extended at 900 metres to allow large planes to land. Airstrips required by the Police will be established to serve border control posts. The Government maintains a large number of airstrips in the game parks and in other locations throughout the country to serve tourists and other travellers. It is the policy of the Government to continue to support air transport on a broad basis as a stimulus to the economic development of the entire country. Estimated expenditures on the aerodromes throughout the country are compiled in Table 14.3.

ESTIMATED DEVELOPMENT EXPENDITURES: AIRPORTS, 1969–1974

Table 14.3 K£'000

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Nairobi	316·00	872·00	1,000·00	1,500·00	1,500·00	5,188·00
Mombasa ..	58·60	50·00	250·00	750·00	1,000,00	2,108·60
Kisumu	25·80	57·00	55·00	40·00	—	177·80
Wilson	50·25	35·90	25·00	25·00	—	136·15
Malindi	8·44	45·60	5·00	—	—	59·04
Other Airports and Airstrips ..	43·35	32·00	25·00	25·00	25·00	150·35
TOTAL ..	502·44	1,092·50	1,360·00	2,340·00	2,525·00	7,819·94

East African Airways Corporation and Other Airlines

14.42. The East African Airways Corporation provides scheduled service within Kenya, Tanzania and Uganda and between East Africa and several foreign nations. It is one of the four Corporations designated in the Treaty for East African Co-operation of 1967.

14.43. East African Airways is governed by a Board of Directors composed of a Chairman and eight other members. The chairman is appointed by the Authority. Two members of the Board are appointed by each of the Partner States and two by the Authority. The Director-General is to direct and manage the Corporation under the general guidance of the Board for determining policy relating to all operations of the Corporation and for ensuring that policies when adopted are properly executed. The Board has the further responsibility to inform the Communications Council of the affairs of the Corporation and to consult the Council when appropriate and assure that the directions of the Council are followed. Major alterations in tariffs, fares, and other charges and adjustments in salaries or conditions of service require approval of the Council.

14.44. The aircraft fleet of East African Airways includes four Super VC 10s, three Comets, four Friendships, six DC 3s and four Twin Otters. A fifth Super VC 10 will be placed in service in 1970. Since the Comets must undergo costly and extensive modification in 1970 or 1971, replacing them with new jets is being considered for 1970. The Friendships have been in service since 1963 and 1964 and are to continue throughout the duration of this Plan. Some of them will be used to replace DC 3s which will gradually be retired from scheduled service. The Twin Otters will replace the DC 3s in some other services. East African Airways' management is alert to new developments in aircraft as related to the specific needs of East Africa for both local and international service. The first "jumbo jets" will be flying into the Nairobi Airport as early as 1970, but they are not expected in large numbers until later in the decade. By that time, East African Airways must be formulating plans for the introduction of third generation jets and to service travellers to and from East Africa arriving and departing via the new jets.

14.45. The network of domestic service is the result of more than twenty years of trial, experiments and development. The traffic, both passenger and freight, is subject to continuous review, as is consistent with the policy of making extra capacity available to encourage ever increasing growth in traffic wherever prospects appear to exist. Modest and carefully planned expansion of service to other African nations is anticipated during the period of the Plan. Once weekly service to Mogadishu in Somalia was introduced in November, 1968, to be extended to Aden in 1970. Plans are under way for inaugurating service to Kinshasa via Bujumbura in 1969. Service to Jeddah and Tananarive in the Republic of Malagasy is under consideration for possibly 1972. Further plans call for expansion of the present service to Zambia and Malawi.

14.46. Planned expansion in other international services include ten flights through Europe to Britain in 1969, an increase of three over the 1968 schedules. Further increases to possibly eleven or twelve are anticipated for 1970 through 1972. Two calls per week to Athens and one to Copenhagen were introduced in 1968, and two are planned for Paris and Frankfurt. A possible stop in Addis Ababa on a service to Britain is under active consideration. Once weekly calls by 1970 are being arranged for Zurich, Brussels and possibly Prague. The extension to Hong Kong, begun in 1968, on a weekly basis, is to become twice weekly in the near future. Once weekly calls are to be made at Bangkok. East African Airways will continue to investigate the possibilities of other extensions during and after the Plan period. Developments for the Middle East, Red Sea and Persian Gulf areas are under review, as is service to points beyond Addis Ababa in the Nile Valley. Also under study are long-term plans for service to Australia via Mauritius and possibly to North America.

14.47. Plans are being developed to encourage more passengers to visit Kenya and other points in East Africa. One proposal is an excursion fare from Europe designed to attract relatives of East Africa residents to visit this area, especially during the off-season period of January to July. A joint EAA/BOAC proposal is being considered for use in packaging inclusive tours. Under this plan, groups of tourists should provide a constant flow into East Africa.

14.48. In order for East African Airways to be represented more effectively in all territories it serves, representations in Europe and Britain were reorganized in 1968. One area manager has headquarters in Rome and has administrative responsibilities for the representatives in Italy, Germany, France, Greece and Egypt. Additional representatives will be stationed in Switzerland, Belgium, Czechoslovakia and Scandinavia. The London office also has the special responsibility for developing business in North America, with plans for an advertising campaign in New York to capture a larger share of the North American tourists. In the Far East, representatives will be assigned to Bangkok, Hong Kong, Tokyo and Sydney to supplement the work now being done by the representatives in Bombay and Karachi.

14.49. Sales shops have been established at Rome, Frankfurt, London, Cairo, Addis Ababa, Karachi and Bombay. Others are under consideration and will be opened when it seems commercially appropriate. New town terminals have been approved by the Communications Council to be constructed in Nairobi, Entebbe and Dar es Salaam. With the coming of the "jumbo -jets", much additional freight capacity will be available on the passenger flights. Also, pure freight service is undergoing rapid increases throughout the world. Although the freight facilities at the Nairobi Airport are inadequate for this scale of expansion, improvements are planned consistent with the recognition that air freight traffic will soon have a position of importance along with passenger traffic. East African Airways will respond to this possibility with particular emphasis on the agricultural and horticultural products moving to various foreign markets.

14.50. Since the advent of Independence, it has been the firm policy of East African Airways to accelerate and expand its supply of trained citizens competent to replace non-citizens on the staff. This policy has been applied through all levels of employees. The objective of the Board of Directors is to achieve complete citizenization in several divisions by 1970. In order to meet this objective, classroom training has been conducted on a departmental basis for stewards/stewardesses, for counter/sales staff and for traffic staffs in passenger/cargo processing procedures and by the Engineering Department in providing an apprentice training programme. The Engineering Apprentice programme, begun in 1961, has been refashioned to develop an adequate number of licensed engineers. Other programmes to train pilots and other technical personnel will continue and be revised as necessary in order to assure that E.A.A. has the qualified personnel to meet the needs of a growing modern airline providing local, regional and international service.

14.51. In order to meet the needs of a growing Corporation in a rapidly expanding industry, East African Airways has a carefully planned schedule of investments in aircrafts, buildings and equipment and other needs. Estimated development expenditures for each year of the Plan period are included in Table 14.4 below.

ESTIMATED DEVELOPMENT EXPENDITURES: EAST AFRICAN AIRWAYS CORPORATION, 1970–1974
(KENYA PORTION)

Table 14.4 *K£'000*

	1970	1971	1972	1973	1974	Total
Aircraft	940	1,040	1,050	970	600	4,600
Plant and Equipment	50	60	50	70	70	300
Buildings	440	240	390	—	—	1,070
Other	10	—	—	—	—	10
TOTAL	1,440	1,340	1,490	1,040	670	5,980

14.52. In addition to East African Airways, smaller private carriers operate charter services in East Africa and to other places on the African continent. Additional services offered by the Charter companies are flying clubs, the Flying Doctor Service, agricultural aerial work companies, missionary aviation services and the Kenya Police Air Wing. The long distances in East Africa and the relatively under-developed road system in several areas make flying an attractive and practicable method of transport for tourists and residents on business and pleasure trips. These companies use light aircraft that can land on small airstrips at game parks and other places throughout the region. One of them provides scheduled service to points around Lake Victoria. Another has scheduled flights to Lamu from Mombasa and Malindi. Demand for these services is growing as is the case with commercial aviation ih general.

East African Railways Corporation

14.53. On the 1st June, 1969, the East African Railways and Harbours Administration was separated into two Corporations, the East African Railways and the East African Harbours. The East African Railways Corporation, which came into being under the Treaty for East African Co-operation and the composition and functions of which are prescribed by the East African Railways Corporation Act, 1967, is wholly owned by the Governments of Kenya, Tanzania and Uganda. The Corporation is responsible for providing co-ordinated rail, road and inland waterway services within the three East African countries. It is required to conduct its affairs according to business principles and to earn a revenue sufficient to meet its costs and earn such annual rate of return on its fixed assets as may be determined by the East African Authority. The Headquarters of the Corporation is in Nairobi.

14.54. Like railways in other countries, and especially those whose economies are predominantly agricultural, traffic volumes tend to fluctuate widely from year to year. But in East Africa, the growth has been sustained over the long term and is likely to continue. Between 1948 and 1966, the volume of traffic increased threefold. Large-scale investment in new lines, new locomotives and wagons, improved signalling and telecommunications and track improvements, have taken place. But competition from road transporters has increased significantly in recent years, and there is a need both to take advantage of technical advances in many fields and to improve operational efficiency. It will also be necessary to adapt its rating practices and commercial approaches to new situations. This the Corporation will do.

14.55. To handle the steadily increasing agricultural and other traffic, the entire railway system is being modernized and its capacity enlarged. In 1965, loans by the World Bank and the British Government were used to finance the purchase of diesel locomotives, wagons and other items of equipment. Present plans call for yet further dieselization of the system, more wagons largely in replacement of life-expired stock, improved signalling and telecommunications, loop lengthening, track relaying, bridge strengthening, new marshalling yards and further modernization of the inland waterways services, principally on Lake Victoria. Finance to assist in the implementation of the current Development Programme is being sought with the World Bank.

14.56. Despite a period of relative stagnation in 1967-1968, a sustained growth of 5 per cent per annum for the entire system is expected. Basically the Railways development programme will provide the movement and line capacity to cope with traffic increases of this order. It will, at the same time, allow for improved utilization of existing equipment and this, together with improved managerial tools and the computerization of wagon control and other operational functions, will in turn result in improved operational efficiency. Periodic upsurges in traffic in excess of the sustained 5 per cent growth rate should be within the competence of the Railways to meet. In Kenya, the volume of traffic is expected to grow at an annual rate of at least 8 per cent.

14.57. These developments alone, however, will not gear the Corporation to meet the changes which are taking place in the transport field. It has to adapt itself to these changes and to flourish and grow in a climate where road competition will be more extended and vigorous than in the past. For many years, being required to sustain a differential tariff which was intended to stimulate growth in agricultural requisites and products whilst relying heavily for its net revenue on highly rated consumer goods and petroleum products, the Railways received a relatively high degree of protection from road competition. Recently the protective measures have been relaxed, and increasing road competition has exposed the inherent weakness of the East African Railways differential tariff. Increasingly, road transporters have made inroads on the high-rated traffics, leaving the Railways to carry the low-rated traffics many of which are charged at rates substantially below full cost.

14.58. Recognizing the need for a rational surface transport policy in which both the Railways and the road operator can play a constructive part in the economic life and development of East Africa, the three East African Governments commissioned a surface transport study conducted by the Economist Intelligence Unit Limited. The Report contains recommendations that, if adopted, should allow rail and road to play their proper roles in the East African economies and to ensure the continued viability of the Railways' undertaking. Effective and direct competition from road transport is virtually assured with the continued development of a comprehensive road system. The Railways must streamline its activities, take full advantage of technical innovations and exercise all possible economies. It must also adopt a pricing policy which attracts to rail all traffic for which it has a cost advantage over road transport. A progressive, viable Railways in a comprehensive countrywide surface transport system that provides the maximum support to the general welfare and development of Kenya and the other Partner States is to be the principal goal.

14.59. To achieve this goal, the Railways will continue its policy of training Africans for all levels of service at the vocational and technical schools, through overseas scholarships and at the University of East Africa. This programme, already of several years standing, will progress as rapidly as feasible towards the basic goal of full Africanization of the Corporation. In addition, there is a comprehensive management training and development project which will ensure that top management is fully equipped with the necessary skills and techniques to provide sound direction and control.

14.60. A World Bank appraisal mission has recently reviewed the Development Programme formulated for the 1969-1972 period by the Railways in consultation with the three East African Governments, and a loan application on behalf of the Corporation is under consideration. The various expenditure categories are indicated for each year of the Programme in Table 14.5.

ESTIMATED DEVELOPMENT EXPENDITURES: EAST AFRICAN RAILWAYS CORPORATION, 1970–74 (KENYA PORTION)

Table 14.5 — *K£'000*

	1970	1971	1972	1973	1974	Total
I. LINES OPEN FOR TRAFFIC						
Permanent Way	2,070	1,274	1,464	1,236	1,930	7,974
Station Buildings	150	235	200	168	31	784
Machinery and Equipment	40	40	50	50	50	230
Telecommunications	113	167	165	200	250	895
Miscellaneous	22	22	22	22	22	110
SUB-TOTAL	2,395	1,738	1,901	1,676	2,283	9,993
II. ROLLING STOCK*						
Locomotives	550	1,670	1,100	1,650	—	4,970
Coaching Stock	50	—	—	—	—	50
Goods Stock	986	907	910	996	—	3,799
Miscellaneous	125	15	15	20	20	195
SUB-TOTAL	1,711	2,592	2,025	2,666	20	9,014
III. MANUFACTURING AND REPAIRING WORKS AND PLANTS						
Buildings	22	22	22	22	22	110
Miscellaneous Plant and Machinery ..	28	28	28	28	28	140
SUB-TOTAL	50	50	50	50	50	250
IV. WATER TRANSPORT SERVICES ..						
Steamers, Tugs, Lighters	143	122	21	3	—	289
Docks, Piers, Wharves	—	—	—	28	28	56
Marine Workshop	40	20	—	—	—	60
SUB-TOTAL	183	142	21	31	28	405
V. ROAD SERVICES	33	28	28	28	28	145
VI. STAFF HOUSING	263	198	163	163	156	943
TOTAL	4,635	4,748	4,188	4,614	2,565	20,750

*The estimated expenditures for Rolling Stock (Kenya Portion) is 60 per cent of the total for the East African Railways Corporation, as Kenya accounts for approximately 60 per cent of the traffic. For the other items located in Kenya, the estimates include the total cost of each project.

East African Harbours Corporation

14.61. The East African Harbours Corporation became an organization separate from the East African Railways and Harbours Administration on June 1, 1969. Like the East African Railways Corporation, it has its own Board of Directors and is under the executive control of the Director-General. Dar es Salaam is the location of the Headquarters of the Harbours Corporation and executive offices of the Director-General. The Deputy Director-General and his staff are to be in Mombasa. The Corporation administers harbour services and facilities in East Africa, other than inland waterway ports, which are administered by the East African Railways Corporation. Mombasa is the principal port for Kenya and Uganda. Consideration is being given to future development of the ports of Kilifi, Lamu and Malindi as additional harbours to support coastal trade and a developing fishing industry.

14.62. The Port of Mombasa is large with space for more deep-water berths as they are needed to accommodate greater numbers of ocean-going ships. There are 13 deep-water quays in full operation, with Berths 13 and 14 having been completed for service in 1967. Lighterage facilities equal in capacity to one additional deep water quay are also available. Work is in progress on reshedding Berths 7 and 8 and on remodelling other berths. As this work is completed, additional work will be undertaken to rehabilitate certain of the facilities related to Berths 1 to 5 and 7 to 10. Rail tracks inside the Harbour are also to be remodelled. The former coal berth at Mbaraki is being developed to permit the loading of both bulk and bagged cement from the Bamburi Portland Cement Company, Limited. The volume expected to move through this berth is 600,000 to 800,000 metric tons per year. Work is being planned to construct associated silo and bagging plant installations in the rear of the berth. These installations are to be provided by the Company. Export of bagged cement over this berth is estimated to be 300,000 metric tons per year with an additional 100,000 metric tons to move by rail to various markets in East Africa. Further plans for developing the Mbaraki berth include special berthing arrangements for bulk carriers and vertical silos and other installations to be used for maize storage and loading for export. Total expenditure planned by the Corporation for the Mbaraki Coal berth is K£2.1 million.

14.63. Because of the anticipated increase in general cargo moving through Mombasa, plans are being developed for construction of two additional berths, Numbers 16 and 17 to be completed before the end of the Plan period. These will operate initially as conventional berths; but because of changes in the maritime trade, especially toward containerization, they will be designed so that container gantry cranes can be mounted later. Sheds serving the berths are to be designed to allow them to be dismantled and re-erected at other berths. The contract for construction of Berths 16 and 17 will have a provision for construction of one or two additional berths at the option of the Corporation. One of the additional berths will be designed for conversion to container operation and the other for conventional service. Special attention is also being given to modernizing the older parts of the port, as several of the shed facilities are inadequate to permit the most effective use of the berths. An unusually large proportion of the port area is occupied by rail tracks. The layout of the port was designed at a time when virtually the only service in and out was by rail, and recent measures to lessen this basic defect will be supplemented by further modernization during the Plan period. Loading platforms are being re-designed to permit efficient loading and off-loading of lorries so that the harbour can be served effectively by both rail and road transport. Additional cold storage facilities and storage sheds are to be constructed to provide for expanding shipments of agricultural products requiring refrigeration and storage. New craft and shore equipment will be purchased as finances permit.

14.64. The 1970-1974 Plan period will be an extremely important phase in the history of the East African Harbours Corporation. It is the period of the advent of the Corporation as a separate entity. It will be a time of renovation of a significant portion of the harbour facilities, as well as expansion of capacity through new and modernized berths and storage and other facilities. The programme of Africanization will continue at all levels, including the highest levels of management. A broad programme of training will continue, including deck officers and marine, mechanical and electrical engineers, organization and administration and cargo handling. The training programmes throughout the Plan period will be of both short and long duration and will be modified to meet the needs of the Corporation and its personnel in providing improved, efficient and expanding service.

14.65. These plans provide for increased capacity at the Port of Mombasa to permit an expansion of operation at an annual rate of at least 10 per cent and to provide greater refrigeration and storage facilities necessary for the continued growth in agricultural production in both Kenya and Uganda. A World Bank Mission has reviewed the entire investment programme of the Harbours Corporation and the Agreement has been signed providing for a development loan of K£12.5 million. Funds from the loan will be used to support the entire Harbours Development Programme. Expenditures at Mombasa during the Plan period are listed in Table 14.6.

Shipping

14.66. The shipping organization of the East African countries is the Eastern Africa National Shipping Line Limited (EANSL). Agreement was reached by the three countries in November, 1964, to form a shipping company. In April, 1966, the Ministerial Committee of the Central Legislative Assembly met with a delegation from Zambia and decided that the shipping line would have equal participation from the Governments of Kenya, Tanzania, Uganda and Zambia and would enter into partnership with

ESTIMATED DEVELOPMENT EXPENDITURES: EAST AFRICAN HARBOURS CORPORATION, 1970–1974 (KENYA PORTION)

Table 14.6 K£'000

	1970	1971	1972	1973	1974	Total
I. EXISTING WHARVES, QUAYS, JETTIES (MOMBASA)						
Rehabilitation of Berths 1 to 5 and 7 to 10	330	330	330	250	250	1,490
Mbaraki Wharf	1,000	800	300	—	—	2,100
II. NEW WHARVES, QUAYS AND JETTIES						
Mombasa 16 and 17	100	1,500	2,000	550	—	4,150
18 and 19	—	—	100	1,500	2,000	3,600
III. FLOATING PLANT AND MACHINERY 50 PER CENT MOMBASA	100	150	150	150	150	700
IV. SHORE PLANT AND MACHINERY KILINDINI						
PORTAL CRANES	200	—	—	—	—	200
50 per cent Mombasa	50	50	50	50	50	250
V. LAND AND BUILDING COLD STORAGE						
TRANSIT FACILITIES	100	200	100	—	—	400
50 per cent Remainder	140	180	150	150	150	770
	2,020	3,210	3,180	2,650	2,600	13,660

Southern Lines Limited, a Mombasa based shipping firm. EANSL was formed in May, 1966, and registered in Dar es Salaam with initial capital of £600,000.

14.67. The first ship chartered by the new line entered the Mombasa harbour in September, 1966, having sailed from London. The following month, the first ship was purchased from a Hamburg line and was renamed the m.v. *Harambee*, and was later commissioned at Mombasa. A second ship was purchased from a Copenhagen firm in March, 1968, and was renamed the m.v. *Uganda*, the first cargo ship ever registered in Uganda. On 16th August 1969, a third ship was commissioned in Mombasa and named the m.v. *Mulungushi*. The *Harambee* is registered in Kenya and the *Mulungushi* in Zambia. Plans for further expansion of the Eastern Africa National Shipping Line call for purchasing another ship to be named the m.v. *Tanzania*. When it is commissioned, a fleet of four will be operating in regular service between the East African and the United Kingdom and continental European ports. In addition to its own ships, other ships will be chartered as needed to move the tonnage to which the Line is entitled under the Conference Lines Agreement.

14.68. The EANSL became a member of the East African Conference Lines in June, 1966. The Conference is an organization of 14 shipping companies, operating between East Africa and United Kingdom and continental European ports. Ships of EANSL, as members of the Conference, are entitled to make one stop each month at one port of member countries such as Britain, France, Germany and the Scandinavian countries. Each ship of the other 14 lines may make one stop each month at East African ports. Ships of lines not represented by the Conference also serve East African ports. Service of some of these lines is not conducted on a scheduled basis as is the case with the Conference Lines.

14.69. Training of East Africans has been a major aim of EANSL and will continue with equal emphasis in the future. Currently, six African officers are working closely with their European counterparts whom they will replace. The firm has been engaged in a comprehensive programme for East African deck and engineering officers. This programme was instituted in co-operation with East African Railways and Harbours Administration to serve the needs of the Shipping Line and the port and inland marine services and will continue in co-operation with East African Harbours Corporation and with the East African Railways Corporation, because of its service on Lake Victoria. Three African marine engineers are studying at Nairobi Polytechnic Institute and others, among them are deck officers, marine engineers and radio officers, are enrolled in training programmes abroad.

16.70. Sea freight rates are determined by the East African Conference Lines for import and export commodities moving on ships in the Conference. Rates for freight moved by ships of other conferences, such as the American Conference Lines and Canadian Conference Lines operating between East Africa and North America, are determined by each Conference. Rates applicable to non-conference ships are agreed upon by the shippers and the shipping companies. The organization representing the three East African Governments and the Government of Zambia, in negotiation with the Conference, is the Inter-Governmental Standing Committee on Shipping. This Committee is expected to be established by legislation in the four countries so that it can officially and effectively represent the countries in rate negotiations. Similar organizations exist in other regions throughout the world to assure that sea freight rates are reasonable and stable and support in general the foreign commerce of the nations.

Oil Pipeline

14.71. In order to plan and develop the most efficient, effective and balanced system of transport in the country, construction of a pipeline to transport petroleum products continues to be a distinct possibility. Pipelines are proving to be an effective mode of transporting these products overland for long distances in many countries throughout the world. Demand for oil products and the geographic flow of traffic in Kenya are especially well suited for operating a pipeline from Mombasa to Nairobi and on to the up-country points in Kenya of Nakuru and Kisumu and to Kampala to serve Uganda and possibly Ruanda, Burundi, Eastern Congo and Southern Sudan. The Government has considered a pipeline between Mombasa and Nairobi for several years. More recent consideration has included the westward extension beyond Nairobi, which has involved consultation with the Government of Uganda. The Governments of Kenya and Uganda have agreed jointly to commission a feasibility study to be carried out by independent consultants.

14.72. It is important that Kenya have a modern transport system to serve the needs of an expanding agricultural, commercial and industrial economy that is changing in structure as it expands. Products likely to move by pipeline are aviation gasoline, motor gasoline, illuminating kerosene, power kerosene, automotive gas oil and the gas oil component of fuel oil. Consumption of these products is increasing rapidly with the result that the most appropriate means of transport becomes progressively more important with the passing of time.

14.73. The principal objective of an evaluation of the feasibility of pipeline transport in Kenya and on to Uganda is to determine whether a pipeline is to be constructed and the appropriate time for its construction. Should the study indicate that the anticipated rate of return on the investment would be sufficient to justify immediate construction, appropriate action will be taken. If, however, the anticipated rate does not now justify construction, it is equally important to determine at what time in the future a satisfactory return can reasonably be assured. Full evaluation of any pipeline proposal necessarily includes an analysis of commercial costs; but it must also recognize economic costs, such as the impact on Railways costs and revenue. Capital costs must be examined and compared to more general international cost data for pipelines, in order that Kenya can benefit from experience of pipeline transport in other nations. The most advantageous route to be followed, the terrain and facilities, such as terminals, pumping stations and storage, must be thoroughly analysed. A further analysis and comparison of foreign and domestic costs are required to involve the maximum use of local resources. All phases of the study are to be completed during the Plan period preparatory to a final decision on whether a pipeline is to be constructed and to design and prepare the plans to be followed during the course of construction of each phase leading to final completion and operation of the line.

Posts and Telecommunications

14.74. The East African Posts and Telecommunications Corporation, like the Airways, the Railways and the Harbours, is one of the Corporations within the East African Community. Corporate status was provided in the Treaty for East African Co-operation. The Corporation is managed by a Director-General who is responsible for the execution of the policies of a Board of Directors. Major tariff changes and capital expenditures require approval by the Communications Council. In accordance with the Treaty, the Headquarters of the Corporation is being moved from Nairobi to Kampala with Regional Offices to be in Nairobi and Dar es Salaam. The East African Posts and Telecommunications Corporation provides postal, telephone, radio-call, telegraph, telex, money order and savings bank services in Kenya, Uganda and the Tanzania mainland. The Corporation also has a controlling interest in the East African External Telecommunications Company Limited, which is the organization that provides international telecommunications services.

14.75. The East African Posts and Telecommunications Corporation has been a self-financing Corporation since 1949. It has neither received financial assistance from nor contributed to the East African Governments. During the Plan period, development expenditures in Kenya will average more than K£1.0 million per year. Funds to support this programme will be provided through net income, depreciation provisions and loans from the World Bank. This programme represents a significant expansion in development as compared to previous years.

14.76. The Development Programme for Telecommunications is based on the telephone growth trend of approximately 9 per cent per annum. It takes into account known future development of industrial and residential areas in Kenya and in the other East African Countries. Also the Corporation will remain alert to unforeseen demands for new service in order to support the general economic development of the three countries. In order to do this, the basic goal is to meet the forecast demand during the 1970-1974 Plan period and to provide an additional 20 per cent of the general capacity to meet fluctuations in demand and to restore the equipment which has been depleted over the past several years.

14.77. The telephone system is at the present time suffering from the following deficiencies:—

(i) Inadequacy of automatic exchange switching equipment;

(ii) inadequacy of exchange and subscriber line plant;

(iii) delays in the completion of trunk calls due to the inadequacy of trunk equipment.

These deficiencies are caused by the low rate of development expenditures during the period from 1958 to 1968. During this period, the Corporation was barely able to raise half of the funds needed from its own resources and was unsuccessful in obtaining sufficient funds from other sources.

14.78. In May, 1966, negotiations were begun with the World Bank for a K£4.6 million loan agreement. With this agreement completed in 1967, investment expenditures were increased and this will continue on through the Plan period, when the major deficiencies of the system will have been removed. During the Plan period, the Corporation plans to finance approximately 32 per cent of development expenditures from external borrowing and 68 per cent from internal resources. The Programme provides for the conversion of major manual exchanges to automatic working and the provision of subscriber trunk dialling throughout the automatic system.

14.79. The rate of development expenditures in Kenya and all of East Africa will be substantially higher than in previous years. A large portion of these expenditures will be for telephone plant and equipment, which will expand the capabilities of the system to meet the rising demand for telephone services and provide a modern efficient telephone system. A basic objective of the telecommunications programme is to assure that everyone who is waiting for a telephone can have one installed within a few days. Telephone services will be improved and expanded in all parts of Kenya. Among the places for which plans have been developed for new line extensions and exchange lines are:—

Donyo Sabuk	Kiambu	Nakuru
Eastleigh	Kikuyu	Nanyuki
Eldoret	Kisumu	Nyali
Embakasi	Likoni	Nyeri
Fort Smith	Malborough	Riverside
Kabete	Mombasa	Rosslyn
Kericho	Nairobi	Thika

Switching equipment, main line trunk bearers and trunk equipment will be installed throughout Kenya as they are required for improved telephone services. Additional trunk line equipment in the early years of the Plan will be installed between the following places:—

Eldoret-Kitale	Nairobi-Nakuru
Kisumu-Kakamega	Nairobi-Mombasa
Kisumu-Kericho	Nairobi-Mt. Margaret
Nairobi-Eldoret	Nairobi-Nyeri
Nairobi-Kisumu	Nakuru-Eldoret
Nairobi-Kitale	Nakuru-Thompson's Falls
Nairobi-Naivasha	Nyeri-Nanyuki

14.80. As well as vast improvements in the domestic telephone system, the Telecommunications Development Programme includes expansion in major interstate services. Nairobi will be connected to the capitals of Uganda and Tanzania through a direct dialling system. Among the specific installation will be additional trunk equipment between the following places in Kenya and neighbouring countries:—

Kenya-Ethiopia	Nairobi-Jinga
Mombasa-Dar es Salaam	Nairobi-Kampala
Mombasa-Kampala	Nairobi-Mbale
Mombasa-Tanga	Nairobi-Moshi
Nairobi-Dar es Salaam	Nairobi-Tanga

East African Telecommunications Company Limited, a subsidiary of the East African Postal and Telecommunications Corporation, has issued tenders for the building of K£1.5 million ground station to be in service by early 1970. The station will be built near Mount Margaret, on the Nairobi-Narok Road, and will be directed to a satellite over the Indian Ocean. The ground station will provide circuits to Europe and the satellite circuits to India, Pakistan and other Asian countries. Besides the Earth Satellite System, development expenditures will be made for telephone exchanges, trunk routes, and telegraphs in order to enlarge and strengthen communications among the East African countries and between these countries and others throughout the world.

14.81. A major objective of the Postal Development Programme is to increase further the ratio of post offices to the population of Kenya and all of East Africa and to improve the service, with particular emphasis on the rural areas. The location and construction of new post offices and enlarging and improving the present ones will necessarily depend upon the availability of funds each year. But the Corporation will remain alert to the broad needs for expanding and improving the postal service to provide continued support for the general economic development of the country. Rural service and service between the urban centres and the rural areas will receive constant attention with the principal objective being to provide modern and effective postal service that meets the broad needs of the country. Table 14.7 presents a summary of the estimated development expenditures on the telecommunication and postal service during the Plan period.

ESTIMATED DEVELOPMENT EXPENDITURES: EAST AFRICAN POSTS AND TELECOMMUNICATIONS CORPORATION 1970–1974 (KENYA PORTION)

Table 14.7 K£'000

	1970	1971	1972	1973	1974	Total
Telephone Exchanges	486·00	232·25	138·50	180·00	200·00	1,236·75
Trunk Routes	360·60	281·10	88·05	150·00	150·00	1,029·75
Trunk Equipment	73·18	65·16	67·12	60·00	68·00	333·46
Subscriber Network	371·00	405·00	446·00	480·00	525·00	2,227·00
Telegraphs	193·79	52·85	60·00	70·00	75·00	451·64
Unspecified	45·00	45·00	30·00	30·00	30·00	180·00
Buildings	135·00	180·00	150·00	60·00	85·00	610·00
Interstate	48·73	234·04	51·03	90·00	90·00	513·80
Total Telecommunications ..	1,713·30	1,495·40	1,030·70	1,120·00	1,223·00	6,582·40
Postal Buildings	150·00	70·00	70·00	70·00	70·00	430·00
Total Posts and Telecommunications	1,863·30	1,565·40	1,100·70	1,190·00	1,293·00	7,012·40

CHAPTER 15—COMMERCE

From the results of the latest statistical survey of the commercial sector it has been estimated that, in the urban areas in 1966, there were 6,660 firms employing 36,130 wage and salaried employees and 8,310 self-employed persons. These firms had an estimated turnover of K£367 million in that year. Findings of a separate survey of wholesale and retail trade in the rural areas indicated that there were in these areas in 1967 about 24,250 wholesale and retail establishments, engaging 22,430 employees and 48,240 self-employed persons with an estimated turnover of K£18 million. The total volume of commercial trade, the employment in the industry and its contribution to the gross domestic product (K£45 million in 1968) underline the importance of commerce in the economy, but apart from this, this industry provides an important link between others. Its performance during the Plan, therefore, will influence other industries whose development it will promote or frustrate. It is estimated the gross product of commerce will grow at the rate of about

NUMBER OF COMMERCIAL FIRMS*, EMPLOYMENT, SALES AND MARK-UPS, 1966

Table 15·1

	Firms	Employment	Sales		Mark-up
	No.	No.	K£'000	Per cent of Total	Per cent
WHOLESALE					
Food, Drink and Tobacco	340	2,870	45,210	12	6
Agricultural Produce	140	2,850	75,310	21	6
Oil and Petrol	10	2,370	24,870	7	34
Textiles, Clothing, Soft Furnishings, Shoes and Leather Goods	500	2,480	41,040	11	11
Industrial Hardware, Building Materials and Timber	130	1,690	12,860	4	17
Domestic Hardware..	40	260	2,350	1	12
Pharmaceutical and Photographic Goods..	20	840	4,380	1	29
Industrial and Agricultural Chemicals, Seeds, Engineering Products and scrap ..	20	1,920	8,440	2	17
General Wholesale	260	4,320	30,380	8	13
Wholesale not elsewhere stated	150	990	6,170	2	23
TOTAL	1,610	20,590	251,000	69	12
RETAIL					
Food, Drink and Tobacco	1,890	5,580	22,030	6	14
Oil and Petrol	280	2,150	8,820	2	9
Textiles, Clothing, Soft Furnishings, shoes and Leather Goods	1,420	4,050	17,320	5	22
Hardware, Building Material and Timber	130	770	3,660	1	21
Pharmaceutical and Photographic Goods..	90	560	2,710	1	28
General Retail	580	1,980	8,190	2	19
Retail not elsewhere stated	330	1,240	4,000	1	38
TOTAL	4,720	16,330	66,730	18	18
JOINT WHOLESALE AND RETAIL					
Motor Vehicle and Spare Parts	190	4,090	34,190	9	18
Non-Electrical Machinery and Appliances	30	1,930	8,810	2	26
Electrical Machinery and Appliances ..	110	1,500	6,620	2	31
TOTAL	330	7,520	49,620	13	21
GRAND TOTAL..	6,660	44,440	367,350	100	14

*Excluding small firms in rural sector.

7 per cent per annum during the Plan: its contribution will rise to K£64 million by 1974, thus maintaining its current share of total domestic product at about 10 per cent.

Structural Characteristics of Commerce

15.2. Government policies for developing and changing the organization of this industry are derived from an assessment of its structural characteristics, some of which can be observed from Table 15.1 above. The salient characteristics are first, that the most important commercial commodities are agricultural produce; food, drink and tobacco, furnishings, shoes and leather goods, motor vehicles and their spare parts; general wholesale and general retail; industrial hardware; and building materials and timber. The distribution of sales among the various categories of commerce indicates that wholesaling, including export/import business, had the largest share of total sales—69 per cent as compared to 18 per cent by retail trade and 13 per cent by joint wholesale and retail trade. The trade mark-ups (additions to the dealers purchase price) for food, drink and tobacco and agricultural produce which accounted for 39 per cent of the 1966 total turnover, are low compared with the mark-ups for such items as domestic hardware, pharmaceutical and photographic goods, machinery, appliances, motor vehicles and their spare parts and other imported items.

15.3. Another feature of commerce, as Table 15.3 shows, has been the preponderence of non-citizen businesses which, in 1966, accounted for about 70 per cent of all turnover in the urban areas. Government policy has been directed towards the correction of this imbalance since the survey figures were compiled, and in the retail sector, at least, a greater proportion of trade than indicated will now be in the control of citizens.

15.4. A further characteristic that should be noted is the heavy concentration of commercial activity in the Nairobi and Mombasa areas. As shown in Table 15.2, in 1966 Nairobi accounted for about 53 per cent of total turnover.

PROVINCIAL DISTRIBUTION OF ESTABLISHMENTS* AND SALES IN 1966

Table 15·2

PROVINCE	ESTABLISHMENTS		SALES	
	No.	Per cent of Total	K£'000	Per cent of Total
Nairobi	2,100	30·2	196,333	53·4
Nyanza	525	7·5	21,612	5·9
Western	240	3·4	4,079	1·1
Rift Valley	1,461	20·9	37,249	10·1
Central	898	12·9	17,063	4·6
Coast	1,262	18·1	79,187	21·6
Eastern	467	6·7	11,244	3·1
North-Eastern	22	0·3	582	0·2
TOTAL	6,975	100·0	367,348	100·0

*The distribution of establishments rather than firms is given because some firms have establishments in more than one province.

Table 15·3

DISTRIBUTION OF FIRMS AND SALES BY KENYA CITIZENS, RESIDENTS AND NON-RESIDENTS, 1966

CATEGORY	JOINT WHOLESALE AND RETAIL		WHOLESALE		RETAIL		TOTAL		
	Firms No.	Sales K£m	Firms No.	Sales K£m.	Firms No.	Sales K£m.	Firms No.	Sales K£m.	Per cent of Sales
Wholly owned by Kenya Citizens	63	3	355	49	2,323	21	2,741	73	19·9
Mainly owned by Kenya Citizens	35	3	143	25	266	8	444	36	9·7
Mainly owned by Kenya Residents	199	25	1,001	96	2,075	36	3,275	157	42·7
Mainly owned by Non-residents	35	19	106	82	52	1	193	102	27·7
TOTAL	332	50	1,605	252	4,716	66	6,653	368	100·0

whereas Mombasa accounted for most of the 22 per cent turnover shown for the Coast Province. The principal reason for this is that most importing and exporting is handled by the larger Nairobi and Mombasa commercial organizations: it is not merely a reflection of consumer demand in these towns.

Government Participation in Commerce

15.5. The private sector accounts for the major share of commercial activity. However, the Government, through statutory boards and corporations, participates directly in the commercial activity of the country, apart from regulating and administering the industry. State trading practices are employed not as an end in themselves, but in those areas where they are considered to offer the most efficient way of achieving defined policy objectives. Statutory organizations which engage in commercial activities have been established by the Ministries of Commerce and Industry, and Agriculture. In the case of agricultural products, marketing boards have beeen established to handle coffee, pyrethrum, meat, cotton lint and seed, maize, wheat and some other products. These marketing boards engage in activities relating to the purchase of produce from farmers, storage and arranging the sale of produce both locally and for export. In some cases processing is also undertaken by the boards. Some of them then undertake wholesaling functions for the internal market and export overseas, while others such as the Coffee Marketing Board dispose of produce by auction. A significant part of the 1966 wholesale turnover of food, drink and tobacco and agricultural produce which, as shown in Table 15.1 amounted to K£120.5 million, are sales of these marketing boards. The activities of these boards during the Plan period are outlined in the development programmes for each product in Chapter 8.

15.6. The Ministry of Commerce and Industry which is the ministry with the main responsibility for the administration of commerce, has also established statutory bodies to operate in this industry. These include the Industrial and Commercial Development Corporation, the Kenya National Trading Corporation and the Kenya National Properties Company each of which are discussed below. The Government further either owns or controls the following trading organizations: the Kenya Film Corporation, Kenatco Transport Company, Ltd., which is discussed in Chapter 14, the Kenya National Assurance Co. Ltd., and the National Bank of Kenya Ltd., which are discussed in Chapter 22.

15.7. The Government's regulatory role in commerce is an important one. The Ministry of Commerce and Industry, jointly with statutory organizations, endeavours to implement Government policies for the commercial sector. These policies, include the encouragement of greater efficiency, the expansion of trade, Kenyanization, protection and education of consumers, elimination of administrative barriers to trade and promotion of sales of the output of local industries. Each of these are discussed below.

Efficiency

15.8. It is regarded by Government as important that the distribution system enables both manufacturers and consumers to obtain raw materials and consumption goods easily and at the lowest cost. An efficient distribution system enables buyers to obtain products at prices not much higher than ex-factory prices; or c.i.f. prices for imported goods. High distribution margins lead to high costs in producing sectors, such as agriculture and manufacturing, and this in turn raises the prices of the economy's output, making its products less competitive with foreign produced produots both in export and internal markets.

15.9. The Government proposes to give greater attention to improving the efficiency of the distribution system. Efforts will be made to reduce the size of wholesale and retail distribution margins and commissions where these are unduly large. A study is now being carried out into the wholesale activities of the KNTC and its results will be used in formulating measures leading to the reduction of distribution margins and commissions by the Corporation and other wholesalers. Measures relating to the rationalization of distribution outlets to ensure economic levels of turnover will also be taken.

Consumer Protection and Education

15.10. The protection and education of the consumer is a matter of continuing and long-term concern to the Government. In Sessional Paper No. 10 on "African Socialism and its Application to Planning in Kenya", the Government emphasised the importance which it attaches to consumer interests with particular reference to price and quality controls and the availability of necessary supplies. A start in implementing these policies has been made with the establishment of legislation making it compulsory for traders to display retail prices of their merchandise. Secondly, all weighing and measuring equipment must receive the approval of the Superintendent of Weights and Measures before they can be used for trade transactions.

15.11. Officers of the Weights and Measures Department carry out regular checks to determine whether the specific quality and quantity claims of the producers and manufacturers of the products are authentic. Complaints from the general public are always fully investigated by the Department which also provides advice to importers, exporters and manufacturers on matters relating to packing and marketing.

15.12. In addition to the measures referred to above, the Government co-ordinates the planning of agricultural producer prices and costs, through the Costs and Prices Committee. In addition, consumption items which are considered to be of great importance in the daily lives of the bulk of the population, such as maize and maize meal products, rice, sugar, bread and certain grades of meat have been placed under retail price control. The relatively slow rise in consumer goods prices during the past five years is indicated by the fact that the Middle Income and Wage Earners' consumer price indices rose by only approximately 2 per cent per annum, between 1963 and 1968.

Expansion of Trade

15.13. The inadequacy of distribution in areas outside the main towns was noted in the 1964-70 Development Plan. This situation still prevails in the small towns and rural areas, where frequently there are too many shops which are under-stocked and deal in the same items: it is characteristic for these businesses to be operated on a part time basis with very small turnovers. Steps will be taken during the Development Plan period to establish more viable businesses outside the main towns, to increase the range of items marketed and to introduce a degree of specialization in items to be handled by individual businesses.

15.14. It is proposed to introduce legislation which will control, regulate and plan the growth of markets in all areas within municipal boundaries. It is also proposed to introduce new provisions into the Trade Licensing Act to make it mandatory for local authorities to draw up plans for local markets before commercial shops are allocated and developed in them.

Kenyanization of Commerce

15.15. The further Kenyanization of commerce is an important part of Government policy in this Plan. As noted above, the turnover of non-citizen businesses has until lately been more than double that of businesses belonging to citizens. However, Government programmes for Kenyanization have had to contend with three basic problems: the lack of technical know-how, experience and financial resources on the part of Africans. The Government's approach has been to establish schemes and organizations to eliminate these handicaps, including the Industrial and Commercial Development Corporation Loans Scheme, the Kenya National Trading Company, the Kenya National Properties, a number of commercial loan schemes and training programmes for businessmen, and use of trade licensing.

District Trade Development Joint Loan Boards and ICDC Commercial Loans

15.16. One of the handicaps that the aspiring African trader has suffered in the past has been the lack of capital to enable him to enter and operate a business. In order to qualify for bank loans, an applicant has to provide adequate collateral, to show evidence that he has maintained a profitable business for a relatively long period and to satisfy the Bank's management that he will be able to repay the loan. These requirements cannot all be met by most Africans who are aspiring to enter business or have only recently entered.

15.17. A number of special schemes have been established by Government with the aim of providing African businessmen with loans to finance their activities. One of these is the small loan scheme administered by the District Trade Development Joint Loan Boards. This scheme covers businessmen whose monthly turnover is below Sh. 10,000. Loans are administered at the district level from a fund contributed on a fifty-fifty basis by the Central Government and the local authorities. An allocation of K£1 million has been made for Central Government's contributions to these funds during the Plan period, as compared with the last Plan's allocation of K£150,000, indicating the importance that Government attaches to the financial assistance of small rural traders.

15.18. Although the ICDC has delegated some of its functions to its subsidiaries, the Corporation has retained responsibility for the provision of financial assistance to African businessmen. It is proposed, during the Plan, to revise the present procedure of processing loan applications. According to the present procedure, loan application forms are completed by the applicant who submits them to the District Trade Officer. The District Commissioner endorses the application which is then forwarded, through the Provincial Trade Officer, to the ICDC headquarters where they are examined and thorough investigations are carried out into the business activities of the applicant. If the application is approved, it is forwarded to the ICDC Board of Directors Loans Committee with the relevant recommendations. It is the latter Committee which eventually makes the final decision on the granting of the loan. This procedure has resulted in delays in the execution of loans and ways of eliminating these delays are being examined. As shown in Table 15.4, the ICDC's revolving fund for these loans will receive an additional sum of K£1 million during the Plan but the total sum to be made available to businessmen from this fund will exceed this amount as the revolving nature of the fund makes it possible for the money repaid to the fund by borrowers to be re-lent to new applicants. The fund already has outstanding loans amounting to about K£640,000.

Credit Guarantee Scheme

15.19. The recent rapid entry into commerce by African businessmen has led to a steep rise in the demand for commercial loans from ICDC. In 1968/69 in particular, demand for loans from ICDC was much in excess of funds allocated to the Corporation for this purpose. It is expected that this higher demand will be maintained during the Plan period and it is planned to meet this by making greater use of the financial resources of commercial banks. Two methods of doing this will be implemented by ICDC during the Plan. First, the ICDC will obtain loans from these banks to supplement its own resources for lending to businessmen: for 1969/70 a consortium of local banks has made available to the Corporation a loan amounting to approximately K£500,000 for this purpose. The second measure will consist of a credit guarantee scheme. Under this scheme, the ICDC will guarantee the repayment of loans by businessmen whom the banks consider marginal cases and whose applications they would reject under their normal criteria. The ICDC will charge a small commission both to the borrowers and the banks for performing this function.

Training of Businessmen

15.20. The importance of providing new businessmen with the basic knowledge they need to operate efficiently cannot be over-emphasized. The achievement of the objectives of rationalization and efficiency presuppose the active participation of manpower that is well trained in such areas as business management methods, book-keeping, and export-import trade. Emphasis will be placed on improving the knowledge of both established and prospective businessmen.

15.21. District Trade Officers already provide basic training to businessmen and will continue to play this role during the Plan period. In addition institutions such as the Extra-Mural Department of the University College Nairobi, and chambers of commerce have organized seminars in various parts of the country to provide training to businessmen and it is planned to maintain this effort.

15.22. The Management Training and Advisory Centre was established in Nairobi at the beginning of 1966 under the auspices of the Ministry of Labour and provides facilities for training people in business on their own account, management and executive staff of private firms and prospective businessmen in a wide range of business management courses. The Centre's activities are not restricted to Nairobi, for it conducts seminars in other towns to enable businessmen in those towns and surrounding areas to participate. Some of the seminars recently held in Nairobi, Mombasa, Kisumu and Thika covered: management communication, industrial engineering, and small scale business management. The Centre will increase its staff and will avail itself of technical assistance from abroad, particularly from the International Labour Organization. During the Plan, the Centre will include in its programme the development of a simple accounting system suitable for small scale businesses. It is important and administratively convenient for these businesses to have a uniform accounting system and Government through its industrial and trade extension service will promote the adoption of a suitable accounting system when it is evolved.

15.23. The Industrial and Commercial Development Corporation has recently created a Management Division to provide management services and advice to small entrepreneurs who are inadequately trained to manage their businesses efficiently. The Division will provide services in such fields as accounting, financial administration, sales promotion, costing and pricing, management, auditing, long-term planning and profitability studies. In addition to these services, it will carry out auditing of accounts for businesses. The Division plans to have branches established at Mombasa, Nyeri, Nakuru, Kisumu and Kakamega by the end of 1970. Important business centres such as Thika, Machakos, Kiambu and Naivasha which are not too distant from Nairobi will be served from the Management Services Division headquarters in Nairobi.

15.24. Another feature of training will be the formation of partnerships between less experienced African businessmen and experienced non-Africans. Such partnerships will reduce the risks of business failure as the relevant expertise of business management will be provided by the experienced partners. Cultural differences and differences in the background and personal histories of Africans and non-Africans in addition to the fact that most commercial businesses are owned by families, have acted as barriers to the formation of business partnerships. A deliberate effort will be made during the Development Plan period to encourage genuine partnerships. Caution will, however, be exercised to ensure that the partnerships formed are genuine and not mere window dressing. African partners in these businesses will be expected to participate actively in the operations of the businesses.

The Trade Licensing Act

15.25. One of the main legislative measures for Kenyanization of commerce is the Trade Licensing Act. The Act provides for the licensing of wholesale, retail, export and import trade, commission agencies, indent agencies, manufacturers representatives, produce dealers and brokers, business brokers and management consultants, insurance and estate agents, laundrying and dry cleaning, hairdressing, and motor vehicle repairs. The Act has provided for the specification of areas of cities, municipalities and townships as general trading areas where both citizen and non-citizen businessmen can be licensed to operate: only citizens are authorized to own businesses in areas outside the general trading areas. There are currently six municipal areas which have been declared general trading areas. These are Nairobi, Mombasa, Kisumu, Nakuru, Eldoret, and Thika. It is evident, therefore, that for much of the country it is only citizen traders who can engage in the distribution business. Measures are also taken when licensing businesses in the general trading areas to introduce African businessmen in these areas which have, in the past, been almost exclusively non-African.

15.26. The Act further empowers the Government to declare specific items as goods which can be marketed only by Kenya citizens. With effect from January, 1970 the following items will be included in these schedules:

Specified Goods as at 1st January 1970

Maize and Maize meal.
Sugar.
Charcoal.
Rice
Fresh vegetables.
Biscuits.
Ghee and ghee products.
Cotton drill and twill.
Second-hand clothes.
Soap.
Matches.
Sweets.
Salt.
Khangas.
Grey cloth.
Cement (excluding special imported cement).
Beans, peas and grams.
Potatoes.
Corrugated iron sheets, barbed wire and nails.
Cigarettes.
Kerosene.
Onions.
Millets.
Edible oils.
Meat.
Soft drinks.
Jaggery.
Detergents.
Dry cells.
Charcoal irons.
Cooking pans.
Second-hand gunny bags.
Blankets.
Building lime.
Galvanized plain fencing wire.
Bicycles and bicycle spare parts.
Hinges.
Screws.
Metal beds.
Shovels and spades.
Hoes and forks.
Axes.
Pangas.
Padlocks.
Lanterns.
Torches.
Shoes and sandals.
Metal doors and windows.
Sandpaper and emery paper.
Milk.
Groundnuts.
Tea leaves and coffee.

The Kenya National Properties Ltd.

15.27. The difficulty of obtaining suitable business premises has presented a formidable problem to aspiring African businessmen. To alleviate this difficulty, the ICDC established in 1968 as a subsidiary, the Kenya National Properties Ltd. The Company's activities include the acquisition and development of plots in urban central trading areas, the development of new markets, the guarantee of loans to suitable applicants for purposes of building or leasing properties, and the encouragement and assistance in the development, where necessary, of selected properties in rural areas, either as sole owners or on partnership with local authorities. The Company operates on a strictly commercial basis. During the Plan period the Company will obtain from Government an aggregate of K£2.5 million of which K£1.5 million will be spent on approved investments and K£1.0 million on small loan schemes. One of the Company's major projects during the Plan is the construction of the Industrial House. The Industrial House will house the headquarters of the ICDC, and will have a cinema, offices and shops for renting.

The Kenya National Trading Corporation

15.28. The Corporation began operations in March, 1965 and was assigned an important part in the promotion of Kenyan wholesale and retail trade. It was also charged with the development of a Kenyan participation in the export trade, principally in primary agricultural products. The Corporation's activities fall into two distinct parts. The first relates to the Corporation participating in actual business transactions, including the placing of orders, warehousing and wholesaling through its appointed distributors. The second activity relates to the licensing and regulation of the import and export trade.

15.29. As at the end of September, 1969, the Corporation had the following network of agents: 630 in produce and provisions, 91 in textiles, 99 in hardware, 24 in wines and spirits and 23 in bicycles and bicycle spare parts. An Agents Appointment Committee of KNTC appoints the Corporation's agents after giving consideration to such matters as the turnover in an area of the items for which the agency is sought and the number of agents already operating in the area. The items handled by the Corporation as at June 30th, 1969, were:—

PRODUCE/PROVISIONS

- Sugar.
- Salt.
- Rice: Imported.
- Edible Oils.
- Soap: local and imported.
- Shampoos.
- Imported Sweets.
- Imported Confectionery.
- Imported Matches.

HARDWARES

- Cement: local and imported.
- Charcoal Irons.
- Bicycle spare parts.
- Batteries.
- Torches.
- Razor Blades.
- Galvanized Corrugated Iron Sheets.
- Nails.
- Barbed Wire and

TEXTILES

- Nytil Jinja Fabrics.
- Mulco Textiles.
- Japanese Khangas.
- Second-hand Clothing.
- Imported Cotton Textiles.
- Local and Imported Blankets.
- Imported Shirts.

WINES AND SPIRITS

15.30. Between 1st March, 1965 and June 30th, 1969, the turnover of business transacted directly by the Corporation and indirectly through its approved agents amounted to K£51 million. The Corporation has expanded its activities rapidly during the last two years. Its turnover during the 1967/68 and 1968/69 financial years being K£12 million and K£21 million respectively. However, the export trade was only a small share of the Corporation's turnover: between 1st March, 1965 and 30th June, 1969 it amounted to only K£1.6 million. Although the Corporation has made some progress in bringing about Kenyanization, much remains to be done. As Kenyanization proceeds and more items come under the Corporation's distribution responsibility, its activities will expand.

15.31. In order to widen its activities the Corporation has acquired shares in the Wafco-Sutherland Ltd., a company engaged mainly in forwarding operations and through which most of the Corporation's imports are handled. The Corporation has also acquired an interest amounting to 80 per cent of shares in the Kenya Shipping Company which operates as agents for the East African National Shipping Line and Southern Line through which some of the Corporation's exports and imports are shipped.

Buy-Local Campaign and Government Purchasing Policy

15.32. In promoting industrial development, it is important to make the population more conscious of the benefits to the economy of patronizing goods produced by local industries. When income is spent on the purchase of these goods, the economy benefits as the expenditures go towards the employment of local labour, and the purchase of local raw materials and other resources, and in this way the income of the country is increased leading to greater internal economic activity and development. The Government will sponsor "buy local" campaigns to persuade the public to patronize products of local industries.

15.33. The Government is a major buyer of a wide range of both capital and consumer goods. It is important therefore that its purchasing policies and practices support local industries. The criteria which form the basis of the Government's purchasing decisions are:—

(i) to obtain the right quality of a product or service for the purpose for which it is required;

(ii) to have supplies at the right time; and

(iii) to pay the lowest price subject to the above two criteria.

The list of items such as textiles, galvanized roofing sheets, soap, shoes and others which can be obtained from both local and overseas sources, is growing with the further industrialization of the country. The Government will, during the Plan, use its purchasing power in supporting local industries by purchasing as high a proportion as possible of its capital and other supplies from East African producers and manufactures. To achieve this, the Government has established criteria for the selection of supplies that place the local manufacturer at an advantage over the foreign supplier. Local authorities, statutory boards, common market corporations and other public organizations will also be called upon to adopt purchasing policies that support local industries.

The Export Promotion Council

15.34. As already indicated in Chapter 5, the value of exports and imports are expected to rise at the rates of 6.0 and 8.5 per cent per annum respectively during the Development Plan period. The importance of implementing a vigorous export drive is apparent from the present large adverse balance of trade and the higher rate of growth of imports as compared with exports. On account of the importance that the Government attaches to export promotion, it has established the Export Promotion Council which has been provided with a full time secretariat to carry out functions relating to the promotion of exports.

15.35. The Council carries out a variety of functions in this connection. One of these entails maintaining contacts with producers, processors, and manufacturers' organizations through which contacts with the Government and overseas importers of Kenya products are made. These organizations include the Association of East African Industries, Kenya Chamber of Commerce and Industry, East African Association of Bankers, and statutory marketing boards for Kenya's principal export commodities.

15.36. The acquisition of information regarding markets, trades statistics, the carrying out of market surveys and dissemination of this information to industrial and commercial organizations and specific exporters is an important function of the Council. It also disseminates information on Kenya's exports overseas, through publications, and trade commissioners and representatives in Kenya, as well as Kenya commercial attaches abroad. It further assists Kenyan exporters in establishing business connections with foreign agents and importers and in providing them with information on such matters as the status and standing of foreign business concerns and the customs formalities, customs duties, import and export control regulations of various overseas markets.

15.37. One of the important functions of the Council is being responsible for Kenya's participation in overseas trade fairs. The Council has been active in this area and in the past three years Kenya has participated in most of the leading international fairs in Europe, America and Africa, including the World Fair in Montreal in 1967. The Council has placed emphasis on Kenya participating in fairs in those countries with which it has either substantial trade or where the potential for increasing trade exists. It plays a leading role in organizing and sending Kenya trade missions abroad. It also encourages visits by Kenya exporters abroad and visits by overseas businessmen to Kenya.

15.38. The Council also examines existing trade agreements and advises the Government on the conclusion of new trade agreements or arrangements. It further examines restrictions imposed by other countries on Kenya's exports with a view to having these reduced or removed. Complaints by overseas importers against Kenya exporting businesses are also examined by the Council.

15.39. The Government will continue to support the Kenya Export Promotion Council and to strengthen it so that it can perform its expanding functions. This support will consist of providing the Council with adequate staff and implementing such measures as creating incentives to promote exports, the undertaking of market surveys, the creation of machinery for organizing the participation of Kenya in trade fairs, the strengthening of publicity campaigns of the Council, and the provision of assistance to exporters.

Trade Within the E.A. Community

15.40. As the process of trade administration in East Africa has become more complex—and particularly since the establishment of the East African Common Market—traders and industrialists have been confronted with a steadily increasing volume of forms to be completed, and regulations to be complied with. These administrative requirements have now become serious barriers to trade development, as smaller traders and industrialists find them difficult to follow and comply with, whereas the larger traders and industrialists can only comply by increasing their clerical and executive staffs resulting in additions to their costs. A stage has therefore been reached where the Government must aim, as a deliberate object of policy, to simplify administrative requirements.

15.41. Most of these requirements arise from licensing, and transfer traffic regulations and customs procedures. The Government can only achieve maximum simplification by co-operating closely with other East African Common Market partners. With regard to customs regulations and procedures, the Government will review with the Customs and Excise Department tariff anomalies, barriers and delays in granting duty drawbacks, barriers to industrial development caused by excise procedures, clearance delays, duplication of checking procedures, the regulations requiring security bonds, transfer traffic problems, and export and re-export procedures.

15.42. In connection with road transport, the Government will review the internal licensing system in the light of the recommendations of the East African Transport Study that has been carried out by the Economist Intelligence Unit. It will also discuss with other East African Common Market partner states barriers to trade caused by the double vehicle licensing requirements, transit procedures, and transfer traffic regulations. The Government will also keep under review sea, rail and air freight rates and services in so far as they may affect trade and industry.

Summary of Central Government Expenditure

15.43. The development programmes discussed in this Chapter will cost the Government an aggregate of K£4.7 million over the five years of the Plan. Details of expenditures on various programmes are set out in Table 15.4.

DEVELOPMENT EXPENDITURES—COMMERCE

Table 15.4 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	TOTAL
Loans to Kenya National Properties Ltd.—						
(*a*) Approved Investments..	200	200	300	400	400	1,500
(*b*) Small Loans Schemes ..	100	150	200	250	300	1,000
Grants for Expansion of Traders Loans Revolving Fund ..	100	150	200	250	300	1,000
Traders Development Loans Boards	100	150	200	250	300	1,000
Training Programme for Traders	13	15	17	18	20	83
Export Promotion Council Special Surveys and Promotion Activity	13	20	25	30	30	118
TOTAL	526	685	942	1,198	1,350	4,701

CHAPTER 16—TOURISM AND WILDLIFE

Introduction

It is expected that by 1974 the tourist industry will provide 40,000 jobs and earn gross foreign exchange worth more than K£37 million. It is planned to provide 5,000 new beds in hotels and game lodges, to improve transport facilities, and to continue to develop new and existing tourist attractions. Total expenditure on the development of the industry for 1970-74 will be about K£14 million, of which K£3.5 million will be financed through the Central Government development budget for tourism.

16.2. East Africa's beaches and wildlife have been attracting increasing numbers of visitors, as air travel has become quicker and people in Europe and America have more money and time to spend on holidays. Many tourists in fact visit at least two East African countries during their trip, and it should be possible for each country's tourist industry to expand without harming the others. A move away from the present competitive efforts to attract tourists to the individual countries and towards co-operative promotion of tourism in East Africa as a whole would almost certainly help to increase the area's share of world tourism more rapidly. Within Kenya, co-operation between the various bodies concerned—the Government and its agencies, the county councils and the private sector—will be essential for the rapid and efficient development of the tourist industry. In particular, new tourist circuits can only be successfully introduced if the provision of roads, transport, accommodation and tourist attractions is co-ordinated, and the experience of tour operators is drawn on in planning them.

Organization

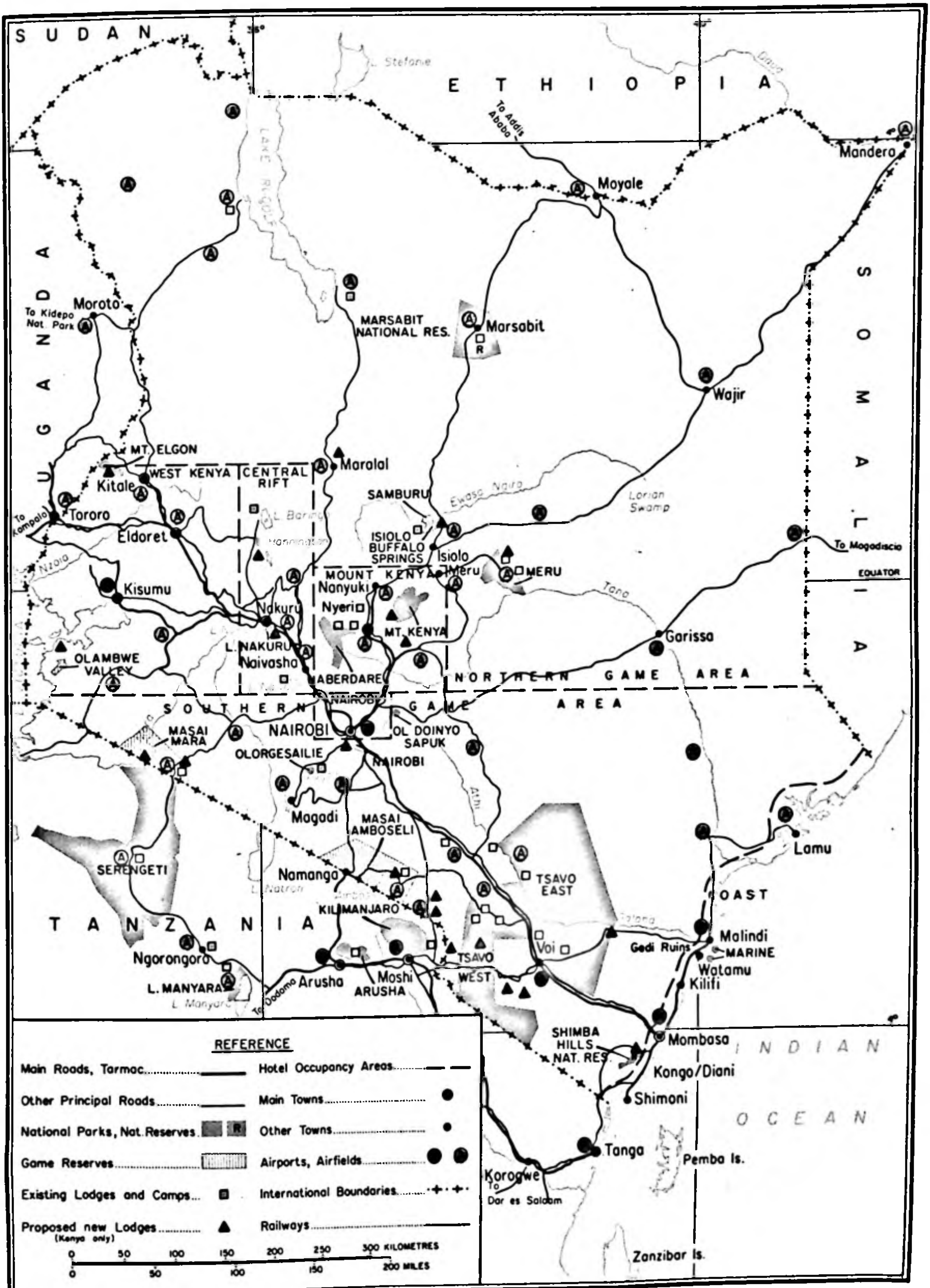
16.3. The Ministry of Tourism and Wildlife is the Ministry mainly concerned with the development of tourism. The Game Department and the Kenya National Parks have their own independent administrations, but are responsible to the Ministry. The Kenya Tourist Development Corporation (K.T.D.C.) is the main channel through which public investment for promoting the industry passes; the Corporation is responsible to the Ministry of Tourism and Wildlife, and requires Ministry of Finance approval for its projects. Despite substantial investments by the K.T.D.C. in recent years, the hotel industry is predominantly privately owned and run; this is also the case with tour operating companies, safari outfitters and air safari firms. It is the Government's policy that private investment in such activities should be continued and encouraged, while the Government's direct investment aims particularly to eliminate bottlenecks and to provide infrastructure. Further Government objectives are the maximization of national benefits from tourism, and the encouragement of local participation in the industry.

Growth of the Tourist Industry

16.4. The tourist industry consists of the varied activities which provide the goods and services on which tourists spend money. It is estimated that in 1968 tourists spent more than K£15 million worth of foreign currency in Kenya (excluding incidental receipts from transport crews and naval personnel). Net foreign exchange earnings (after allowing for the cost of imports by the industry, and some repatriation of profits) were probably 75 per cent of this. Assuming that another 15 per cent of receipts represents inputs from other local industries, Gross Product derived from the tourist industry was about K£9 million in 1968, or more than 2 per cent of the total Gross Product.

16.5. Tourists spent an estimated average of K£6.2 per day in 1968 or, for an average stay of 9½ days, nearly K£60 each, of which only K£15 was spent directly or indirectly on imported goods and services. The industry created employment for about 20,000 people in hotels, services (both Government and private), agriculture, airlines, construction and other related activities. This represents three jobs for every 365 days spent by tourists in the country; by 1974 a "tourist year" will probably create four jobs on average, partly as a result of proportionally greater use of hotels by tourists than at present. Further investment in the development of tourism will be one of the most efficient ways of expanding employment, foreign exchange earnings and national income. It is probable that a larger than average part of the income generated by tourism accrues to Kenya citizens because of the labour-intensive nature of most activities in the industry; the industry also contributes substantially more in direct and indirect taxes to the Government budget than it receives in assistance.

16.6. Tourism has been growing rapidly in recent years. Hotel beds occupied by foreign (i.e. non-East African) residents increased by nearly 24 per cent per annum between 1964 and 1968. It is estimated that growth rates of 21 per cent per annum in foreign tourist nights and 6 per cent in East African tourist nights, giving an overall growth of nearly 15 per cent per annum, can be expected in 1970-74. This would represent a total of nearly 2.5 million tourist nights spent in hotels in 1974, provided that sufficient accommodation can be built. Kenya residents may account for an additional million hotel bed nights by this date, compared with 660,000 in 1968. (The basis of these projections is set out in more detail in paragraph 16.9.) Whether the total number of visitors will increase as rapidly as this depends on how the average length of stay moves over the period, and on the number of visitors who come to Kenya but do not stay in hotels. The latter are expected to fall about 5 per cent per annum over the Plan period, and may stay about 1.2 million nights in 1974. On balance, the overall increase in the *number* of visitors is thought likely to be somewhat below the 15 per cent per annum projected increase in tourist hotel nights.



TOURIST DEVELOPMENT

Table 16.2

HOTEL BEDS AVAILABLE AND PROJECTED DEMAND, NEW CAPACITY AND BED OCCUPANCY RATES, 1968–74

Projection / Area	Nairobi		Coast		Southern Game Area	Northern Game Area	Mount Kenya	Central Rift	West Kenya	All Kenya
	International	Other	Beach	Other						
Hotel bed demand ('000 bed nights)										
1968	290	425	345	165	100	5	65	45	55	1,495
1974	595	645	1,135	225	525	35	105	70	65	3,400
Projected new capacity (No. of beds)										
1st half 1970	—	—	350	—	—	100	50	—	—	500
1970–71	—	—	900	250	400	50	—	50	—	1,650
1971–72	—	300	800	—	300	100	100	—	—	1,600
1972–73	—	—	500	—	200	—	—	—	50	750
1973–74	—	—	300	—	100	—	—	50	50	500
TOTAL	—	300	2,850	250	1,000	250	150	100	100	5,000
Beds available (Number) 1968	1,100	2,020	2,100	995	740	80	490	400	420	8,345
1969	2,160	2,180	2,320	980	905	75	570	385	425	10,000
1974	2,160	2,480	5,170	1,230	1,905	325	720	485	525	15,000
Occupancy rates % 1968	72	60	51	46	44	25	36	33	36	52
1974	75	71	60	50	75*	29*	40*	39	34	62

**See* text, paragraph 16.14.

16.7. Total expenditure by tourists is, however, expected to rise by around 15 per cent per annum, giving gross foreign exchange earnings of about K£36.5 million in 1974. This estimate assumes a secular increase of 2 per cent per annum in average expenditure per tourist night, and also takes account of the expenditure of visitors not staying in hotels. It does not include incidental expenditures of aircraft and ship crews, ships passengers or naval personnel visiting Mombasa, which may amount to K£500,000 in 1974. The effect on employment of this expansion will depend on how wages and productivity move in the tourist industry and elsewhere in the economy, but on conservative assumptions employment directly or indirectly created by the industry will at least double over the Plan period (para. 16.19 below). The table below summarizes tourism's contribution to the economy 1968-74.

Economic Contribution of Tourism, 1968–1974

Table 16.1

	Gross Product in the Industry (*K£m*)	Gross Foreign Exchange Earnings (*K£m*)	Employment (numbers)*
1968	9·0	15·0	20,000
1974	22·0	36·5	40,000

*Includes employment indirectly created by tourism.

Accommodation

16.8. Accommodation must be provided for tourists if the potential demand for visits is to be satisfied. Accordingly, a programme has been drawn up to expand hotel accommodation and to raise the degree of utilization of existing capacity to cater for the expected growth in visitors. It should be emphasized that the realization of this programme depends to a large extent on the readiness of private investors to provide finance for those projects which have not already been taken up. However, this is not expected to be a problem as long as adequate publicity can be given to these investment opportunities. Foreign investment in tourist facilities is encouraged by the Foreign Investments Protection Act, 1964, and hotel construction is eligible for special tax reliefs including accelerated depreciation on buildings. The Government intends to take a share in the financing of some of these projects, and this will reduce the amount of capital to be found by private investors. Other projects affecting accommodation include plans for a central booking system and the classification of hotels, and a programme of loans for modernizations.

16.9. Table 16.2 gives the regional distribution of hotel and lodge beds currently available, and projected bed demand, annual additions and bed occupancy rates by the end of the Development Plan period. Estimation of the number of additional beds required was carried out in two stages. First, demand for bed nights was projected by looking at past trends in bed occupancy by foreign residents and East African residents (separately) in the various categories of accommodation. These trends were adjusted to take account of special factors known to have been operating—such as supply constraints, and inaccessibility or unattractiveness of existing accommodation—and projected to 1974, giving the composite growth rates shown in para. 16.6. Second, this demand projection in terms of bed nights was then converted to demand for beds by assuming that, because of seasonal fluctuations and frictional effects, less than 100 per cent occupancy would be realizable on average during a year. The estimated maximum realizable annual occupancy rates used in the calculation were of the order of 75 per cent for Nairobi hotels and 60 per cent for other accommodation. A programme for necessary additions was then derived by comparing the existing stock of beds in each area with the estimate of beds required. A certain amount of building ahead of demand is incorporated in the programme, to allow for delay in building up to higher occupancy rates, and it is only in 1974 that maximum realizable occupancy rates are approached in some areas. Decisions on the class and actual location of new accommodation reflect the need to cater for tourists of differing incomes, and the policies of developing tourist circuits and focal points for development at the coast.

16.10. The present programme envisages an increase between 1970 and 1974 of about 3,100 beds at the coast, 300 beds in Nairobi, and 1,600 beds in game lodges. This will bring total bed capacity to 15,000; 4,640 in Nairobi, 6,400 at the coast, 3,000 in game areas and 960 in other parts of the country. The details of the intended additions to capacity are set out below. The programme will be kept under review, and open to modification in the light of changing demand trends or if the maximum realizable occupancy rates assumed above are too optimistic, and pressure on capacity builds up sooner than expected.

Nairobi Hotels

16.11. Hotel capacity in Nairobi expanded rapidly in the months immediately preceding the present plan period. The new Intercontinental and Hilton hotels provided 960 additional beds and extensions to the Panafric Hotel added another 72. This means that there should be sufficient first class hotel accommodation in Nairobi for the time being; there are at present no firm plans to add to it during the Plan period. Construction of one medium class hotel is planned for 1971/72, but demand may be strong enough to encourage construction of other hotels in this category. Only scanty information is available on the plans of the private sector for modernizing and extending existing hotels, particularly those in medium and economy class categories, and therefore no allowance has been made for them in the tables. But it is expected that the projected high occupancy rates in Table 16.2 will stimulate such activity.

Table 16.3

REQUIRED COAST HOTEL CONSTRUCTION, 1970–1974

Number of Beds

Area / Year	Class	1st half 1970	1970–71	1971–72	1972–73	1973–74	Total
Nyali	1st	—	—	—	—	—	—
	Med.	—	100	200	—	—	300
	Econ.	—	—	—	—	—	—
Malindi	1st	—	—	—	—	—	—
	Med.	250	200	200	—	—	650
	Econ.	—	100	—	—	—	100
Mombasa	1st	—	—	—	—	—	—
	Med.	—	100	—	—	—	100
	Econ.	—	150	—	—	—	150
New Coast Development Centres* ..	1st	—	—	100	100	—	200
	Med.	100	400	200	400	300	1,400
	Econ.	—	100	100	—	—	200
Total	1st	—	—	100	100	—	200
	Med.	350	800	600	400	300	2,450
	Econ.	—	350	100	—	—	450

*See para. 16.12.

Coast Hotels

16.12. The hotel development plan for the Coast and Mombasa entails adding 3,100 beds during the Plan period. Table 16.3 shows how it is intended that this capacity should be established, although a number of these projects have not been finalized in detail. More than half of the additional beds are to be established at Kongo/Diani, Kilifi/Mtondia and Watamu, the three areas on the coast which have been chosen as centres for tourist expansion and whose infrastructure is being developed by K.T.D.C., as described in paragraph 16.28.

Southern and Northern Game Lodges

16.13. The development of game lodges fell behind schedule during the last Plan period, and their construction therefore deserves high priority in the present plan. The main reason for the past shortfall was difficulty in reaching agreement with county councils on terms for lodge construction and operation; these difficulties have not yet been entirely resolved, but it is essential that local authorities should in the future play their full part in promoting tourist expansion. The two largest county council reserves, Mara and Amboseli, lie on the main Kenya-Tanzania tourist circuit, and it is

Table 16.4 PROJECTED LODGE CONSTRUCTION, 1970–1974

Year	*Location of Lodge*	*Area*	*No. of beds*
1st half 1970	Mount Kenya	Mount Kenya	50
	Meru (Leopard rock) ..	Northern game area ..	100
			150
1970/71	Nakuru	Central Rift	50
	Maralal	Northern game area ..	50
	Amboseli	Southern game area ..	100
	Kitengela	Southern game area ..	100
	Mara (2 lodges).. ..	Southern game area ..	200
			500
1971/72	Mount Kenya	Mount Kenya	100
	Buffalo Springs (Samburu)	Northern game area ..	100
	Kimana	Southern game area ..	100
	Sala Gate	Southern game area ..	100
	Shimba Hills	Southern game area ..	100
			500
1972/73	Losoito (Murka Hill) ..	Southern game area ..	100
	Loitokitok	Southern game area ..	100
	Homa Bay	West Kenya	50
			250
1973/74	Lake Hannington ..	Central Rift	50
	Mount Elgon	West Kenya	50
	Lake Chala	Southern game area ..	100
			200
		PLAN TOTAL ..	1,600

particularly important that there should be no bottlenecks in accommodation there. The present programme, detailed in Table 16.4, provides for an expansion of 1,000 beds in the southern game area, 250 in the northern game area and 150 in the Mount Kenya area, doubling existing capacity.

16.14. But capacity may be over-strained in the southern game area by 1974, unless some of the demand for lodge accommodation can be diverted to the Northern and Mount Kenya areas. It is assumed that this will in fact happen, because of the construction of attractive new lodges in these latter areas. The rather striking occupancy rates in Table 16.2—very high for the southern game area and low for Mt. Kenya and the northern game area—will then revert to more normal levels. If total projected demand for accommodation in 1974 in these three areas is compared with total projected available capacity (from Table 16.2), an overall occupancy rate of about 60 per cent is obtained. This is still relatively high, and emphasizes the need for a flexible approach in planning lodge accommodation. The feasibility of erecting tented camps to cope with peaks in demand while more permanent accommodation is built is being investigated, but it is recognized that such camps appeal only to a small proportion of tourists. It is clear that the lodge construction programme, which is at present largely concentrated in 1970-72, may have to be reviewed later in the Plan period, when demand trends are clearer.

Central Rift and West Kenya Hotels and Game Lodges

16.15. As shown in Table 16.2, the numbers of beds available in 1969 in Central Rift and West Kenya were respectively 385 and 425. Apart from the northern game area, these areas have had the lowest bed occupancy rates in the country in past years. It is planned to raise occupancy rates in these areas by encouraging tourist circuits to include them, by renovating and modernizing existing hotels, and by adding new capacity with greater tourist appeal. 100 beds will be added in Central Rift and 100 beds in West Kenya. New projects in this programme include lodges near Homa Bay and Mount Elgon and on Lakes Hannington and Nakuru.

Investment in Hotels and Lodges

16.16. It is estimated that an aggregate outlay of K£5,325,000 will be made during the Plan period to establish the additional hotel and lodge accommodation described above. Table 16.5 shows the breakdown of expenditure in detail. The estimates have been made on a cost per bed basis, using the following factors:—

Type of Accommodation	*Average Cost per bed, K£*
Nairobi—medium class	1,250
Coast—first class	2,000
Coast—medium class	600
Coast—economy class	400
Game lodges	1,750

PROJECTED HOTEL INVESTMENT, 1970–74

Table 16.5

Type / Year	NAIROBI		COAST						GAME LODGES		ALL	
	Medium Class		1st Class		Medium Class		Economy					
	Beds	K£'000	Beds	K£'000	Beds	K£'000	Beds	K£'000	Beds	K£'000	Beds	K£'000
1st half 1970	—	—	—	—	350	210·0	—	—	150	262·5	500	472·5
1970–71	—	—	—	—	800	480·0	350	140·0	500	875·0	1,650	1,495·0
1971–72	300	375·0	100	200·0	600	360·0	100	40·0	500	875·0	1,600	1,850·0
1972–73	—	—	100	200·0	400	240·0	—	—	250	437·5	750	877·5
1973–74	—	—	—	—	300	180·0	—	—	200	350·0	500	530·0
1970–74	300	375·0	200	400·0	2,450	1,470·0	450	180·0	1,600	2,800·0	5,000	5,225·0

The estimated cost of game lodges is high because of high standards of construction, high transport costs for construction materials, and because water, power, and other services have generally to be provided for each individual lodge. However, it is hoped that some of the lodges later in the programme may be constructed more economically to provide medium class facilities for those visitors who do not wish to pay for luxury accommodation.

16.17. The private sector has shown a strong interest in investing in hotels and game lodges, and it is expected that it will provide most of the investment required in the plan period. But the Government will supplement private funds by investing through the K.T.D.C. where necessary. The extent of this participation cannot be known precisely in advance, but given the pressing need for public investment in providing other tourist facilities, it is unlikely to exceed 30 per cent of the total investment in accommodation, or some K£1.6 million. The proportion of K.T.D.C. investment in game lodges may be somewhat higher than 30 per cent, to enable the Corporation to use its influence as a parastatal body in negotiations with the National Parks and county council authorities for lodge sites and favourable conditions for lodge operation.

Classification of Hotels

16.18. It is planned to establish a system of classifying hotels and to document this information in one publication. The country has a wide variety of hotels that can cater for the tastes of the whole range of tourists, and the availability of such a document would guide visitors in their choice of suitable hotels and lodges. Technical assistance from West Germany is being sought for this task.

Manpower Requirements

16.19. Tourism has the potential for creating employment more rapidly than most other sectors, both because it is expected to grow rapidly, and because it creates a demand for labour-intensive services. The expected growth of tourism during the Plan period will, on the basis of existing employment-output ratios, generate approximately 5,000 new jobs in hotels and restaurants, 1,500 jobs in tour operation and 3,000 jobs in other activities directly connected with tourism. It is estimated that 7,000 jobs will be indirectly created in the sectors supporting tourism—in particular agriculture and distribution—and that investment in building and construction for the tourist sector will provide about 3,500 more jobs than in 1968. This gives an increase in employment over the plan period of 20,000 persons, bringing the total employment in the sector to 40,000 in 1974.

16.20. Effective training of new staff will be vital if the standards of efficiency and courtesy which are so important to tourists are to be maintained, and here both the Government and the private sector have a part to play. The Government role will be to set up training facilities for higher skilled and professional employees. The training of hotel staff is to be given priority, and the Government has established a hotel training school to turn out 10 to 20 graduates annually, from a four year course, for appointment to junior and middle grades of hotel management. The first students will graduate in 1972. Capital costs of K£12,500 for equipment have been financed by the Government, while the costs of operating the school are met by employers, who sponsor students as apprentices. Employers also send a number of apprentices abroad for training. The second part of the Government programme covers less skilled jobs, and envisages the establishment of regulated in-service training programmes and standards of competence, to complement normal in-service instruction. For hotels, the Government will work out appropriate apprenticeship training schemes for the various trades involved, and will form a trade testing unit.

16.21. An independent institution is expected to be established in Nairobi to offer training in a wide variety of activities relating to tourism, as well as general commercial subjects. The institution would offer courses in hotel management, business management and the operation of tours and travel agencies, and train couriers and safari drivers. The National Parks and Game Department run their own in-service training programmes; plans for joint training facilities are outlined in para. 16.55.

Resident "Tourism"

16.22. Very little statistical data are available on the extent to which Kenya residents travel round the country for recreation, whether for game viewing, hunting, fishing or to visit the Coast, but rising incomes and increased leisure time will encourage an expansion in these activities. And although the primary object of tourist development is to attract foreign visitors, Kenya residents will naturally benefit from many of the planned improvements to tourist facilities, including those to game areas, roads and accommodation. It is also proposed to cater more specifically for the leisure needs of residents by encouraging and co-ordinating the development of the Lake Naivasha and Ol Donyo Sabuk/Fourteen Falls areas as national recreational centres, and by guaranteeing public access to the coastal beaches. These proposals do not involve any significant public expenditure, but in so far as they encourage residents to spend their incomes on labour-intensive services rather than on other goods, they will help to expand employment.

Expenditure on Tourist Development

16.23. It is estimated that total expenditure on tourist development by the public and private sectors in 1970-74 will be K£13.8 million (K£10.9 million, excluding road construction). The components of the estimate are set out in Table 16.6. It is assumed that 30 per cent of hotel finance will be provided by the public sector after 1969-70. The figure for private sector "other investment" covers expenditures by tour operators, air charter firms and safari-outfitters to meet expanding demand, and is derived from a study carried out for the K.T.D.C. Development expenditure for Nairobi and Mombasa airports, which must be regarded as vital infrastructure for tourism, has not been included in the table, nor has expenditure on roads which will benefit tourism but which were not designed primarily for this purpose. The administrative expenses of the Ministry of Tourism are also excluded. Table 16.6 shows that, even if these expenditures are not taken into account, the public sector will contribute rather more than the private sector to total expenditures in the Plan period. More detail on public expenditure is given below.

EXPENDITURE ON TOURIST DEVELOPMENT

Table 16.6 *K£'000*

Item Year	1969/70	1970/71	1971/72	1972/73	1973/74	Total Plan
PUBLIC*						
Ministry of Tourism Training ..	12·5	—	—	—	—	12·5
Grant for KTDC Administration expenses	42·5	45·0	47·5	50·0	52·5	237·5
KTDC:						
New lodges and hotels ..	225·0	448·0	585·0	263·0	159·0	1,680·0
Loans for modernization ..	60·0	110·0	110·0	110·0	110·0	500·0
Traditional Village	45·0	40·0	—	—	—	85·0
Coast infrastructure	—	40·0	40·0	20·0	20·0	120·0
Small business loans	10·0	10·0	10·0	10·0	10·0	50·0
Kenya National Parks (grants in aid)	40·0	40·0	40·0	40·0	40·0	200·0
Game Department	130·5	134·0	134·0	128·0	119·0	645·5
TOTAL	565·5	867·0	966·5	621·0	510·5	3,530·5
PUBLIC†						
Kenya National Parks	184·0	93·0	91·5	75·5	72·0	516·0
Game Department	32·0	20·0	20·0	20·0	20·0	112·0
Tourist promotion‡	40·0	42·5	45·0	47·5	50·0	225·0
TOTAL	256·0	155·5	156·5	143·0	142·0	853·0
PRIVATE						
Hotels	247·5	1,047·0	1,265·0	614·5	371·0	3,545·0
Other	600·0	600·0	600·0	600·0	600·0	3,000·0
TOTAL PRIVATE ..	847·5	1,647·0	1,865·0	1,214·5	971·0	6,545·0
TOTAL PUBLIC AND PRIVATE ..	1,669·0	2,669·5	2,988·0	1,978·5	1,623·5	10,928·5
TOURIST ROADS						
Phase I and II	470·0	616·0	81·0	—	—	1,167·0
Phase III	—	300·0	500·0	600·0	300·0	1,700·0
TOTAL ROADS ..	470·0	916·0	581·0	600·0	300·0	2,867·0
GRAND TOTAL, including roads ..	2,139·0	3,585·5	3,569·0	2,578·5	1,923·5	13,795·5

*Tourist Development budget expenditures.

†Not financed from Development budget.

‡Expenditure from Ministry of Tourism recurrent budget.

— Less than K£500.

Infrastructure Development

Airports

16.24. Two thirds of visitors in 1968 arrived by air; of the remainder the majority travelled by road, and only a small number came by sea and rail. It is expected that the percentage of visitors arriving by air will increase to about 80 per cent by 1974, as charter flights grow in number and "Jumbo jets" are introduced on scheduled flights. Any reductions in average fares accompanying these developments will undoubtedly help to boost Kenya's tourism. But the growth in traffic will also necessitate major improvements to Nairobi and Mombasa airports, which are discussed in detail in paragraphs 14.26 et seq. Other expenditures on airports and air-strips will benefit the expanding number of tourists travelling by air inside Kenya.

Roads

16.25. Air travel within the country, however, accounts for only a small proportion of all journeys, and road travel will retain its importance for many years to come. The principal roads used by tourists are the Nairobi-Mombasa road, which gives access to the Tsavo Parks and the Malindi-Shimoni road serving the coast; the Nairobi-Nanyuki and Nairobi-Nakuru roads serving the Mount Kenya, Aberdare and Central Rift areas; and the Nairobi-Namanga road and Nairobi-Mara roads to Amboseli and Mara Game Reserves which link with the Northern Tanzanian park circuit through Serengeti and Ngorongoro. These roads, with the exception of the two latter, are bituminized and generally in good condition.

16.26. The Nairobi-Mara and Nairobi-Namanga roads are at present in relatively poor condition, but work is in progress on a bitumen road to Namanga and improvements to the Kijabe-Mara road have already been started. Improvements to roads in Tsavo, Meru and the Aberdares will also be carried out and in phase III of the tourist road programme emphasis will be placed on the construction and upgrading of access roads to tourist attractions. Expenditure on roads specifically for tourists will total K£2.9 million in 1969-74, but tourists will also benefit from the general improvements to the country's road system which are detailed in Chapter 14.

16.27. The maintenance of roads within parks is the responsibility of the National Parks administration, and funds have been allocated for this as mentioned in paragraph 16.38 below. The Government will ensure that the country's road system is adequately maintained and developed as planned to meet tourist needs, and it is unlikely that there will be any bottleneck in internal tourist transport. Transport and tour operators are generally well organized and the small capital expenditures necessary to expand capacity at any one time mean that adjustments to meet demand can easily be made as required.

Other Infrastructure

16.28. The other main item of expenditure on infrastructure in the plan period will be K£120,000 to be spent by K.T.D.C. on developing three areas on the coast at Kongo-Diani, Kilifi-Mtondia and Watamu. Water and electricity supplies and access roads will be provided for hotel sites and beach plots. It is intended that these three areas should be focal points for tourist development at the coast; they may be supplemented by other areas as development proceeds.

Promotion and Publicity

16.29. At present, development of the tourist industry is largely a question of providing facilities to meet existing demand, with particular emphasis on accommodation. Tourism on a world scale is, however, a highly competitive industry and it is important that none of the impetus of the present upsurge of tourist interest in East Africa should be lost because potential visitors are unable to come through lack of accommodation, or because visitors who do come are disappointed with the facilities they find. By the same token, despite possible reductions in air fares, which constitute a large part of the cost of most holidays in Kenya, it would be unwise to assume that demand will continue to grow into the indefinite future without increased efforts being made in the fields of marketing and promotional activity. There is undoubtedly room for greater co-operation between the East African countries in the joint promotion of the unique combination of beaches, sun, scenery and wildlife which the area has to offer, and in the development of new circuits, not necessarily based in Kenya, giving tourists improved access to these attractions. The object of such co-operation would be to increase the total number of visitors to East Africa and to the individual countries, and to maintain or if possible increase East Africa's share of the expanding tourist market, while minimizing the cost of doing so in terms of resources used. Training, research and data collection are other fields in which the possible gains from co-ordination of efforts should be investigated.

16.30. At present, there are three Kenya Government tourist offices abroad, in New York, London and Frankfurt. It is proposed that new offices should be opened in Scandinavia and France, and that there should be increased co-operation with airlines and overseas tour operators in publicising Kenya's attractions. The planning of promotional activities and of special facilities for tourists will be helped by the results of surveys at present being conducted in Kenya to throw light on the preferences, characteristics and motivations of tourist visitors. These surveys will also update existing information on tourist expenditure patterns and will enable publicity campaigns to be effectively directed to appropriate markets. One of the objects of promotional activity will be to inform visitors of the variety of attractions other than game viewing and beaches which Kenya has to offer but which to date have been enjoyed mainly by residents. These include both fresh-water and deep-sea fishing, hunting, bird watching, mountaineering and mountain walking and pony trekking, and a number of prehistoric and historic sites, as well as spectacular scenery off the main existing tourist circuits. Expenditure on promotion, which is met from the Ministry of Tourism's recurrent budget, is expected to total K£225,000 in the Plan period.

16.31. The remaining sections of this chapter set out the planned activities of the K.T.D.C., the National Parks and the Game Department in the Plan period.

The Kenya Tourist Development Corporation

16.32. The K.T.D.C. was established in 1965 in order to formulate and execute projects connected with the tourist industry on behalf of the Government. Its major function is to assist the private sector in establishing adequate hotel and lodge accommodation, and it has provided loan and share capital for various hotels, including K£200,000 for the Nairobi Hilton, K£25,000 for the Intercontinental Hotel and K£50,000 for the Panafric. New K.T.D.C. investments in share capital and loans for hotels and game lodges may total K£1.7 million in 1970-74.

Hotel Modernization

16.33. Another major area of activity will be the granting of loans for the renovation and modernization of existing hotels, where it appears that such improvements will be profitable. Investigations carried out by officers of the Corporation have indicated that availability of capital is one of the chief barriers in the renovation of small, normally family owned, hotels. For this reason it is planned that the K.T.D.C. will make available to these hoteliers loans to enable them to carry out modernization schemes. It is estimated that the Corporation will need K£500,000 for this programme during the Plan period. The Central Rift and West Kenya areas will be particular targets for this programme. If circuits bringing more tourists to these areas are to be successfully developed, it is essential that the average standard of existing accommodation should be raised to supplement the planned additions to capacity at Mount Elgon, Homa Bay, Nakuru and Lake Hannington.

Traditional Villages

16.34. To enable tourists to have a glimpse at the traditional way of life in Kenya and to enable citizens to have access to examples of their cultural heritage, it is proposed that traditional villages should be established in appropriate places in the country. These villages will be cultural centres which will endeavour to show to visitors the traditions, culture, and way of life of the country as well as to offer entertainment. The villages will have stalls for handicrafts and curios, restaurants serving traditional dishes, and areas where traditional dances will be performed. Many foreign visitors want to see something of traditional ways of life and culture, and they miss this experience if their stay is restricted to hotels and cities, visits to the game parks and sunbathing on the coastal beaches. Easy access to traditional villages should help to satisfy this need. The first traditional village will be established near the Nairobi National Park during the plan period. In later years it is planned to establish other villages near the main tourist circuits. The K.T.D.C. will finance the first traditional village, at a cost of about K£85,000.

Central booking system

16.35. The major objective of the central booking system for hotel and lodge accommodation, which the Government proposes to set up in conjunction with K.T.D.C. during the Plan period, will be to keep track of available bed space, and to ensure that cancelled bookings are offered to customers with a minimum of delay. Other objectives such as the standardization of booking and cancellation fees could be pursued once the system has become satisfactorily established. It is proposed to locate the central booking office in Nairobi. The scheme would be self-financing, the costs of establishing and running it being met by charging a small commission to travel agents, hotels and lodges.

National Parks

16.36. The National Parks must meet the two-fold purpose of conserving for future generations of Kenyans and the rest of the world the unique natural heritage of animals and plants found in our forests, plains, and sea coast, while at the same time utilizing these resources for the maximum effect on the country's economic development. The nation cannot afford the luxury of unused resources, but it is equally important that these unique natural resources should not be destroyed for short-term objectives. The economic value of national parks is found mainly in the willingness of foreign visitors to pay substantial sums of money to see, photograph and study the plants and animals of our parks. In 1968/69 visits to wildlife National Parks totalled 228,141. About half of the total attendance was accounted for by the Nairobi National Park, with 103,677 visits. Visits to other National Parks in 1968/69 were: Tsavo East, 22,230; Tsavo West, 38,460; Mount Kenya and Aberdare areas, 22,721; Lake Nakuru National Park, 39,678; and Meru National Park, 1,285.

16.37. The problems of parks development in this two-fold context are, first, to see that the parks become as nearly as possible self-contained ecological units and to manage these units so that unnatural disturbance to the ecological systems is minimized. Secondly, the parks must be developed and managed in a way which conforms to the tourist development programme by providing sufficient sites for accommodation in or, especially, near the parks, by providing access to the natural wonders and wildlife of the parks, by building viewing stands and hides, and by providing guiding and interpretive services that will enhance the visitor's experience.

Table 16.7

NATIONAL PARKS DEVELOPMENT EXPENDITURE, 1969–1974
(*by function*)

K£'000

Park	Buildings and vehicles for admin. staff	Tourist facilities	Education	Wildlife Management	Research	Land acquisition	Total
Tsavo East	22·9	38·1	14·1	17·5	—	—	92·6
Tsavo West/Chyulu	31·8	24·1	12·1	—	—	—	68·0
Meru	26·0	18·5	—	5·5	—	—	50·0
Nairobi	31·8	42·7	3·2	10·0	—	100·0	187·7
Ol Donyo Sabuk/14 Falls	3·4	2·0	0·4	2·3	—	1·0	9·1
Lake Nakuru	21·6	8·5	20·0	8·0	15·0	15·0	88·1
Aberdares/Mount Kenya	25·5	28·8	—	6·0	—	—	60·3
Mount Elgon	10·6	3·6	—	0·8	—	—	15·0
Shimba Hills	14·0	5·0	10·0	5·0	8·0	—	42·0
Marine parks	10·0	10·0	5·0	5·0	10·0	—	40·0
Marsabit	3·0	1·0	—	1·0	—	—	5·0
Rift Valley park	—	—	—	—	—	—	—
Animal orphanage	—	13·0	—	—	—	—	13·0
Lake Rudolf park	—	—	—	—	—	—	—
Tsavo Research project	—	—	—	—	45·0	—	45·0
TOTALS	200·6	195·3	64·8	61·1	78·0	116·0	715·8

—Less than K£100.

NATIONAL PARKS DEVELOPMENT EXPENDITURES, 1969–74
(*by Financial Year*)

Table 16.8 — *K£'000*

Park	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Tsavo East	13·8	16·9	20·3	20·6	21·0	92·6
Tsavo West	14·2	14·6	13·1	12·7	13·4	68·0
Meru	13·6	9·0	9·0	9·4	9·0	50·0
Nairobi	110·4	22·1	21·5	15·3	18·5	187·8
Ol Donyo Sabuk/14 Falls	3·0	3·6	1·0	1·5	—	9·1
Lake Nakuru	30·7	16·1	16·0	12·5	12·7	88·1
Aberdares/Mount Kenya	12·2	12·0	12·0	12·0	12·0	60·2
Mount Elgon	3·8	5·5	3·1	1·7	0·9	15·0
Shimba Hills	5·0	10·0	10·0	10·0	7·0	42·0
Marine Parks	5·0	8·0	13·0	7·0	7·0	40·0
Marsabit	—	1·0	1·0	1·5	1·5	5·0
Rift Valley park ..	—	—	—	—	—	—
Animal Orphanage ..	3·0	5·0	2·5	2·5	—	13·0
Lake Rudolf park ..	—	—	—	—	—	—
Tsavo Research project..	9·0	9·0	9·0	9·0	9·0	45·0
TOTAL	223·8	132·8	131·5	115·7	112·0	715·8

—Less than K£100.

16.38. The National Parks' expenditure plans fall into six functional categories as indicated in Table 16.7. The expenditure will be financed mainly from entry fees and donations, but the grant of K£40,000 per annum from the Central Government development budget will be continued. About 30 per cent of the planned expenditure will be required for administrative facilities, which cover housing for junior staff and labourers, housing for senior staff where alternative housing is not available, workshops, storage sheds and additions to the fleet of administrative vehicles. Expenditures on tourist facilities include items of equipment for road maintenance, construction of entrance gates, viewing blinds, convenience facilities, picnic sites, camp sites, fishing cabins, self-service bandas and nature trails. It is also planned to provide facilities such as fishing cabins or camp sites to help establish tourism in undeveloped parks such as Mount Elgon and Marsabit. Over 25 per cent of the development budget is allocated to the development of tourist facilities.

16.39. The National Parks' educational responsibility extends both to citizens and to visitors. The responsibility toward citizens is to help them appreciate their natural heritage by establishing educational centres and hostels to cater for educational groups, and by providing exhibits with educational value, and transport for group tours. Certain interpretive facilities of interest to both types of visitors are included in the tourist development estimates above. The National Parks' wildlife management activities consist mainly of organizing poaching patrols, establishing firebreaks, and constructing ditches and game-proof fences in the mountain parks to keep wildlife from damaging adjacent farms. Water development projects are envisaged in Tsavo East and Nakuru. Nearly nine per cent of the budget is allocated to wildlife management.

16.40. The National Parks' research section has its headquarters at Voi in Tsavo East. Ecological research is under way in this park to provide sufficient information for the formulation of a sound management policy for the Tsavo Park. It is estimated that K£45,000 will be spent on the physical facilities at this research centre in order to house the research staff needed and to provide a permanent research centre for the entire parks system. Minor research programmes are planned for several parks. There will be ornithological and limnological studies of Lake Nakuru and surveys of the Marine Parks as a basis for management and interpretive programmes. Shimba Hills will have ecological surveys carried out for the purpose of managing the sable antelope.

16.41. Land acquisition accounts for 16 per cent of development expenditure. The principal item is the acquisition of a large tract of land south of Nairobi Park for inclusion in the Park. This land is needed to safeguard the animal herds of the park and to provide sites for a tourist lodge and other developments. Land is also desired at Nakuru for the development of a lodge and educational and administrative facilities.

16.42. The allocation of funds to individual parks as shown in Tables 16.7 and 16.8 reflects the relative importance of the various parks to the development of tourism. The major growth in tourism is expected in Nairobi Park, Tsavo Parks East and West, Lake Nakuru and the Marine Parks. Consequently, 60 per cent of the total development budget is allocated to these parks. The strategic importance of the Nairobi Park to tourist development stems from its location on the outskirts of Nairobi. The Tsavo Parks are favourably situated with respect to both the Coast and Nairobi tourist trade and the opening of new lodges and new roads connecting the Tsavo Parks with the coast will stimulate the growth of tourism there. The Marine Parks are ideally placed to offer attractions to the coast tourists and their growth will only be a matter of developing their attractions. Lake Nakuru has the potential of being an ornithological centre of world-wide significance, and high priority will be given to speeding its development.

16.43. The parks of second order importance include Meru, the Aberdares, Mount Kenya and Shimba Hills. Meru has been isolated by poor roads and lack of facilities, but an access road is being completed, and tourist facilities in the park will be improved with the result that Meru could be receiving more than 10,000 visitors per annum by the end of the Plan period. The Aberdares and Mount Kenya parks have in the past been attractive to tourists and their importance is expected to grow, since lodge accommodation has been increased and roads are being improved. Because of the potential of these particular parks, more development is planned than past trends in numbers of visitors would seem to justify. Shimba Hills will undoubtedly become important to the coast tourist trade as access and facilities are improved, and this justifies the relatively high investment required to develop it.

16.44. Three parks are accorded third priority and are therefore allocated a lower development investment. Mount Elgon in western Kenya will become important with the development of tourism in the area. Ol Donyo Sabuk and the Fourteen Falls on the Athi River are important as potential areas for week-end recreation for the populations of Nairobi and Thika, but full realization of this potential is some years away. Marsabit National Reserve will become a National Park and be more accessible to the adventuresome traveller as the Nairobi-Addis Ababa road is pushed northwards, but as most of these visitors will be residents, planned investment is low. An increasing number of non-residents will, however, visit this area by air.

16.45. The timing of the Parks development expenditures is shown in Table 16.8. Expenditures are proportionately heavier in the first years of the Plan for a number of reasons. The major items of land acquisition are envisaged for the first year or two of the Plan. These are actions which cannot be delayed. Certain initial investments in the newer parks are desired for the purpose of establishing control as well as to make them accessible to visitors. Finally, there is an urgency in bringing junior staff housing up to a minimum acceptable level in most parks and in acquiring the basic road maintenance equipment necessary to keep the newly constructed park roads in good repair.

16.46. At the beginning of the 1966/70 Development Plan period, the National Parks consisted of Tsavo, Nairobi, Aberdares, Mount Kenya and Lake Nakuru National Parks and Marsabit National Reserve. Since 1966, several important additions to the national parks system have been made. Meru Park was added in December, 1966, Ol Donyo Sabuk in December, 1967, and Lake Nakuru was extended in November, 1967. Progress has been made in the acquisition of several additional areas: Chyulu Hills as an addition to Tsavo Park, extensions of the Aberdares and Mount Kenya parks, Marine National parks at Watamu and Malindi on the coast, and Mt. Elgon in western Kenya. Agreement has been reached concerning a study of the future of Shimba Hills as a national reserve, and two new National parks, one on the north-eastern corner of Lake Rudolf and the other around Lake Hannington, will be gazetted early in the Plan period. With 5 per cent of Kenya's total land area contained in National Parks and with the parks representing a broad spectrum of the natural habitats found in the country, the park system is approaching a satisfactory state of completeness.

Game Department

16.47. The Game Department has the responsibility for managing the game resources of the country for a variety of uses, including game viewing, and hunting and cropping, which take place outside the national parks. The wildlife resources in most parks and game reserves are under-utilized. The county council game reserves (Mara, Amboseli, Samburu, Isiolo and Olambwe) particularly could accommodate many more tourist visitors than they do at present. Sport hunting takes far fewer numbers of game animals from the hunting blocks than are produced, except in the case of trophy animals, and assuming that sufficient unsatisfied demand for hunting exists, this is a field which can profitably be developed. Cropping under quotas established by the Department is practised on a number of private ranches, which sell the resulting hides, but because the sale of game meat is illegal, the economic benefit derived from wildlife in this way is inadequate to offset the disadvantages (from damage, disease and competition for grazing) of conserving wildlife on ranching land. The economic potential of game cropping on ranch lands is far from being realized.

16.48. The major aim of the Game Department during the Development Plan period will be to increase the economic return from wildlife resources. This will be done by programmes aimed at developing the economic return from game viewing, sport hunting and game cropping; in particular it is intended to legalize and develop the controlled sale of game meat, both to encourage conservation of wildlife on ranching land and to make better use of

GAME DEPARTMENT DEVELOPMENT EXPENDITURE, 1969–74

Table 16.9 — *K£'000*

Item	1969/70	1970/71	1971/72	1972/73	1973/74	Total
ADMINISTRATION/ENFORCEMENT:						
Buildings	35·0	30·0	30·0	30·0	25·0	150·0
Vehicles and equipment ..	40·0	10·0	10·0	10·0	10·0	80·0
SUB-TOTAL	75·0	40·0	40·0	40·0	35·0	230·0
RESEARCH:						
Buildings	—	8·5	8·5	8·5	8·5	34·0
Vehicles and equipment ..	—	4·0	4·0	4·0	4·0	16·0
SUB-TOTAL	—	12·5	12·5	12·5	12·5	50·0
GAME CONTROL WORKS ..	12·0	20·0	20·0	20·0	20·0	92·0
GAME DEVELOPMENT PROJECTS:						
County Council projects ..	15·0	15·0	15·0	15·0	15·0	75·0
Other district projects ..	18·0	15·0	15·0	15·0	15·0	78·0
Utilization projects	40·0	40·0	40·0	40·0	40·0	200·0
Local costs of UN experts ..	1·5	1·5	1·5	1·5	1·5	7·5
SUB-TOTAL	74·5	71·5	71·5	71·5	71·5	360·5
TRAINING..	1·0	10·0	10·0	4·0	—	25·0
TOTAL	162·5	154·0	154·0	148·0	139·0	757·5*

*Including expected loans and grants worth K£112,000 from external sources, supplementing Central Government funds.

animals whose numbers need to be reduced for control reasons. Another side to the economics of wildlife is that wild animals cause damage to crops and land and that wildlife is often wastefully used or the resources endangered through illegal hunting and trapping. An important part of the development programme will therefore be to minimize the losses inflicted on agriculture and to curb illegal hunting activities.

16.49. The expenditures in the Game Department development programme fall into five project headings—administration and enforcement, research, game control works, game development projects and training.

16.50. Upgrading of quarters provided for the game scout staff will cost an estimated K£40,000. Accommodation for 20 junior wardens on the staff at present plus anticipated increases in staff will cost K£10,000. New warden stations in the Eastern, North-Eastern and the Coast provinces will cost K£40,000. Improvements to the Nairobi headquarters and construction of additional outposts to increase control over hunting activities will bring the buildings total to K£150,000. Vehicles, arms, safari equipment, communications equipment and other administrative and enforcement equipment will cost K£80,000.

16.51. The Department operates a field research station at Maralal and proposes to establish a second field station in southern Masailand in the Mara plains. The purpose of the stations is to provide a convenient base for continuous research in the region in which the station is located, and the aim of the research programme is to prepare regional wildlife management plans. The research programmes will include vegetation studies to assess trends and to study the effects on vegetation under different burning and grazing practices, studies of the numbers and movements of the principal animal species in order to determine seasonal importance of various areas of their range and to improve utilization of the animals, studies of the population dynamics of the principal gregarious species in order to monitor trends and to assess cropping possibilities, studies of pathological relationships between wildlife and domestic stock, and economic studies of the wildlife populations and of the benefits and costs of alternative range development programmes. Housing, vehicles and equipment costing K£50,000 will be required to provide the facilities for the envisaged research programmes.

16.52. Physical works to contain wild animals in the reserves or other areas and to prevent them from entering agricultural areas where they damage crops and endanger lives are necessary in order to minimize the costs of damage by game animals. Game proof ditches and fencing cost K£600 to K£900 per mile to construct and upwards of K£100 per mile per annum to maintain. This means that only very high value crops or very high value animal populations can be protected by means of fencing. It is proposed that about K£100,000 be spent on control fencing in the five year programme. At the same time, the Department intends to explore other means of reducing the costs of damage by wild animals. It is anticipated that in many areas where fencing is uneconomic the provision of buffer zones between agricultural and wildlife lands where co-ordinated cropping can be carried out will be a practicable and efficient solution to control problems.

16.53. Funds totalling K£360,000 have been allocated to game development projects. The practice of making grants in aid to county council game reserves will be continued but in order to continue receiving these funds county councils will be required to produce five year management and development programmes to be approved by the Chief Game Warden. Other district development projects will be funded as approved. Projects will include water development and other habitat development, establishing special use zones with facilities for intensified or specialized hunting, photographic safaris, game cropping and wildlife surveys and facilities to control illegal hunting. Projects of assistance to private ranchers who wish to develop wildlife ranching on a co-ordinated and controlled basis will also be encouraged. A total of K£150,000 is allocated to county council and district development projects.

16.54. A major programme of wildlife utilization development is envisaged and K£200,000 is allocated for this purpose. A committee representing the Ministries of Agriculture and Tourism and Wildlife is currently working out details of a pilot cropping project to be commenced in conjunction with the group ranching projects in various districts. It is envisaged that field facilities will be provided for the production of a wide range of meat products as well as skins and biltong. A large part of the K£200,000 will go for field equipment, vehicles and housing for the project staff. Loans and grants from external sources are expected to help with finance. In addition to establishing profitable cropping projects on the group ranches it is expected that the pilot operation will open the way for commercial game cropping on private ranches and will make it possible for the Game Department to establish a mobile cropping team to carry out short term operations in areas where this is appropriate.

16.55. In order to keep present staff competence at satisfactory levels and in order to bring new staff and junior staff up to advanced levels, the Game Department proposes to establish training facilities. The facilities would preferably be operated in conjunction with a wildlife education and research centre. It is entirely feasible for the National Parks and the Game Department to run joint in-service training facilities and two locations are currently being explored. Simple housing for staff, transport, and equipment would require an estimated investment of K£25,000.

FOOTNOTE

Since this Chapter was prepared the following new projects have been announced:—

(1) The construction before the end of 1970 of two lodges near Voi with a total of about 200 beds costing K£750,000.

(2) Three hotels in Nairobi containing a total of 800 beds. Construction dates and costs not yet known.

CHAPTER 17—EDUCATION

Introduction

The nation can be proud of its achievement in education since Independence. There has been a great national surge of enthusiasm for more and better schools everywhere. The Government has made spectacular progress in all levels of education and has, in particular, moved significantly toward the achievement of three important goals. The first and most important of these is to produce sufficient numbers of people with the skills, knowledge and expertise required to support an independent modern economy at a high rate of growth. The second is the rapid achievement of universal primary education. There is, finally, the social objective of all educational systems; that is, the inculcation of those cultural values which not only contribute to the enrichment of people's lives, but which are essential for the maintenance of a cohesive and productive society.

17.2. Progress towards the achievement of these objectives cannot be measured entirely in quantitative terms but must also be expressed in terms of the quality of education provided. The Government is acutely aware of the danger that an extremely rapid expansion of enrolments within the school system could result in a decline in the quality of the educational services provided and, as a consequence, has, and will continue, to institute programmes to preserve and to enhance the quality of education at all levels.

17.3. In quantitative terms, progress in education since Independence has been impressive. Such important institutions as Kenyatta College, the Kenya Institute of Education (including the Curriculum Development and Research Centre), the Department of Education at University College Nairobi, the Medical School, the School of Nursing and the School of Law have been established. Important organizations like the Teachers' Service Commission, the East African Examination Council and the Jomo Kenyatta Foundation have also been established. The growth in the number of educational institutions and in school enrolments reflect the high priority which Government has placed on educational development. Table 17.1 summarizes the progress which has occurred since Independence.

17.4. These rapid rates of growth in the numbers of educational institutions and in school enrolments have caused very heavy claims against the financial resources of Government. Table 17.2 provides a summary of the growth of recurrent expenditures of Government on education since Independence. Development expenditures over this period caused additional claims: in 1963/64, total development expenditures of central Government on education were K£418,328; the estimated Development expenditures in 1968/69 were approximately K£3 million.

NUMBERS OF INSTITUTIONS BY TYPE AND ENROLMENTS, 1963 AND 1968

Table 17.1

Type and Level of Institutions	1963 No. of Schools	1963 Enrolments	1968 No. of Schools	1968 Enrolments
(*a*) PRIMARY—				
Maintained (Aided) ..	5,906	880,016	6,004	1,202,076†
Unaided	152	11,537	131	10,604
TOTAL	6,058	891,553	6,135	1,212,680†
(*b*) SECONDARY—				
Aided	118	22,613	232	56,546
Unaided	32	4,896	369	44,815
TOTAL	150	27,509	601	101,361
(*c*) PRIMARY TEACHER TRAINING COLLEGES—				
Aided	35	4,035	25	5,693
Unaided	2	84	1	56
SECONDARY TEACHER TRAINING COLLEGES—				
Aided	—	—	2	885
TOTAL	37	4,119	28	6,634
(*d*) TECHNICAL AND VOCATIONAL SECONDARY SCHOOLS—				
Aided	8	1,752	11	4,212
Unaided	—	—	2	4,425
TOTAL	8	1,752	13	8,637
(*e*) Makerere University College	1	215*	1	383*
University College, Nairobi..	1	246*	1	1,074*
University College, Dar es Salaam	1	9*	1	148*
U.E.A. TOTAL	3	470	3	1,605

*Kenya Students only.

†Including an estimate of unrecorded schools not included in Table 2.4.

RECURRENT EXPENDITURE OF CENTRAL GOVERNMENT ON EDUCATION
1963/64 AND 1968/69

Table 17.2 *K*£'000

	1963/64	1968/69 Estimates	Per cent Increase
Administrative and General ..	227	370	63
Primary Education	1,649	3,240	96
Secondary Education	1,121	3,781	237
Secondary Technical and Vocational	297	610	106
Teacher Training	595	1,124	88
Higher Education	612	1,410	131
Other Expenditure	1,464	489	—
TOTAL	5,965	11,024	85

*After Independence, a grant system was instituted to aid local authorities in financing their development activities. The K£3,240,000 shown for primary education in 1968/69 is the imputed portion of the total grants from Central Government spent on primary education.

17.5. Over the Plan period 1970-1974, Government's overall objectives for education will remain virtually unchanged. However, the efficient achievement of these objectives will necessitate a number of important innovations and a reordering of priorities. Educational Development during the Plan period will emphasize—

(*a*) the expansion of education in all parts of the country with special programmes in the less (educationally) developed areas;

(*b*) the institution of more practically oriented course work in secondary schools;

(*c*) the establishment of an independent University in Kenya;

(*d*) the institution of a school supervisory service at the primary school level in order to improve the quality of instruction.

As in the previous Plan period, priority within the educational system will be given to the meeting of national manpower needs in as efficient a manner as possible. While the achievement of universal primary education will retain high priority, emphasis will also be placed on the further development of secondary education and the 1970-1974 Plan will give a higher priority to the development of science streams in the upper secondary schools. Similarly, a higher priority is assigned to the development of science and science-related faculties at the University. The development of commercial education will also receive more attention during the new Plan period.

Primary Education

17.6. The unprecedented changes now taking place in Kenyan society depend heavily upon the creation of new knowledge, new skills and ever greater numbers of literate and educated people. Primary education is a fundamental basis for literacy and the foundation upon which are built the structures of modern educational and training systems. Universal primary education, Government's long-term objective, will continue to possess high priority in the 1970-1974 Plan for education, in order to ensure equal opportunity for all people to play their full part in the development of the country.

17.7. Unfortunately, it remains impossible to provide free primary education for all. However, during the Plan period significant progress will be made in increasing the numbers of children who may attend school free of charge.

17.8. Overall responsibility for the development of primary education resides with Government. However, in order to provide a system of primary education responsive to local needs and in order to stimulate local initiative, Government has, in the past, delegated the responsibility for the establishment and most of the financing of primary schools to local authorities. Government retained direct responsibility for establishing the curriculum, administering the certificate for Primary Education and ensuring that instruction is of an adequate quality. However, as outlined in Chapter 7, Government will assume full responsibility for the financing of all expenditures on primary education in County Council areas as from 1970. Municipalities will retain their present responsibilities in this field.

17.9. *Primary School Programmes, 1970-1974.*—During the Plan period, the Government intends to continue its support of a rapid expansion of primary school enrolments. In order to encourage this expansion and to ensure that children in less fortunate families may have an education, Government will double the percentage of children who may attend school free of charge. Finally, Government intends to improve the quality of education by ensuring an increasing output of quality teachers and by introducing a new supervisory and in-service training programme for teachers. In sum, Government will seek to implement two programmes:—

(i) An expansion programme in all areas.

(ii) A quality improvement programme.

17.10. *The Expansion Programme.*—In 1968, approximately 61 per cent of all children of primary school age were enrolled in school. Government has established a target of 75 per cent enrolment by 1974. In order to achieve this target, Government will lend support to a 6 per cent annual overall increase in Standard 1 intakes and an expansion of total enrolments from 1.2 millions in 1968 to approximately 1.8 millions by 1974.

17.11. A major instrument by which this enrolment target will be achieved is the remission of school fees. In 1968, the percentage of persons attending school free of charge varied from 5 per cent to 10 per cent depending upon

PROJECTED ENROLMENT IN KENYA PRIMARY SCHOOL SYSTEM ON ASSUMPTION OF 6 PER CENT ANNUAL INCREASE IN STANDARD I INTAKES

Table 17.3 *Thousands*

Standard	1968	1969	1970	1971	1972	1973	1974
I	251	266	282	299	317	336	356
II	208	228	241	256	271	288	305
III	179	200	219	232	246	261	277
IV	159	157	185	203	215	228	242
V	133	138	138	161	177	188	199
VI	135	146	161	161	192	214	226
VII	147	148	159	175	175	208	228
TOTAL	1,212	1,283	1,385	1,487	1,593	1,723	1,833

NOTES—1. Standard I intakes projected at 6 per cent annual rate of growth. 1969 enrolment in Standard I is 6 per cent above 1968 enrolment estimate of 251 thousands.

2. Projections for standards II through V are based upon average survival rates, i.e. one minus the average attrition rate. Average survival rates are:—

Standard I	1·0000	
Standard II	0·9066	average of 1965, 1966, 1967, 1968
Standard III	0·8729	average of 1966, 1967, 1968
Standard IV	0·8080	average of 1965, 1967, 1968
Standard V	0·7052	average of 1965, 1966, 1968

the ability and initiative of the parents. It is intended to increase this percentage to between 15 per cent to 20 per cent by 1974, the rates of remissions varying from district to district. The Cabinet, with the advice of the ministries concerned, will determine the appropriate remission percentages.

17.12. All areas in Kenya, particularly those with widely scattered populations, have not participated equally in the recent rapid expansion of primary education. Less than 50 per cent of the total primary school age population are enrolled in schools in Baringo, Samburu, West Pokot, Turkana, Ol Kajuado, Narok, Wajir, Mandera, Garissa, Isiolo, Marsabit, Tana River and Lamu districts.

17.13. In most of these districts; enrolments will have to rise very rapidly in the next Plan period if the country is to reach the national target of 75 per cent of the primary school age population enrolled by 1974.

17.14. As these districts are among the poorest in the Republic, Government will encourage primary school attendance by providing boarding facilities in each of the mentioned districts. Government will also survey these districts and where necessary and practicable, improve and extend existing facilities.

17.15. *Quality Improvement Programme.*—One instrument for the improvement in the quality of primary school instruction will be the general replacement or training of unqualified teachers. In 1968, approximately 27 per cent of all primary school teachers were classified as unqualified. By 1974, Government intends to reduce this percentage to approximately 3 per cent. Table 17.4 provides projections of total teacher requirements and supply, by qualification, for the period 1969-1974.

Table 17.4 ('000)

	1968	1969	1970	1971	1972	1973	1974
SUPPLY OF TEACHERS—							
Trained	27·4	29·9	32·4	35·2	38·1	41·4	44·5
Untrained	10·0	7·8	7·2	6·1	5·0	3·9	1·3
TOTAL REQUIRED	37·4	37·7	39·6	41·3	43·1	45·3	45·8

17.16. During the last five years, there has been a rapid expansion of teacher training activities at teachers colleges and in the forms of in-service courses in the districts, with a special programme for untrained teachers. While these activities will continue during the new Plan, Government intends to establish a follow-up training programme in the form of a Primary Education Supervisory Service to provide more effective professional guidance and supervision in the schools. This Service will assist in co-ordinating all in-service activities relating to primary teaching and will help to ensure that on-the-job training of teachers is provided regularly and effectively. This programme began in 1969 with 18 itinerant supervisors, stationed at strategic points in the provinces. During the Plan period, Government will appoint 8 new itinerant supervisors each year, so that by 1974 there will be one officer in charge of the Primary Education Supervisory Service in each district, with other officers stationed in the Ministry of Education and at the Kenya Institute of Education. Fifteen new Assistant Education Officers will also be appointed each year, so that by 1974, an establishment of 50 Provincial Education Supervisors and 205 Assistant Education Supervisors will have been created. The recurrent costs of this new programme will rise from K£1,500 in 1969/70 to K£134,000 in 1973/74.

17.17. In addition, other existing projects aimed specifically at improving the quality and effectiveness of instruction will be continued through the next Plan period. These projects are:—

(i) The In-Service Course for Headmasters. The objective of this project is to increase the effectiveness of the headmasters as school administrators and professional advisers to members of their respective staff.

(ii) The Curriculum Development and Research Centre. The purposes of this project are to prepare new curriculum and instructional materials and, generally, to assist in the improvement of education. Inquiries concerning teaching problems are answered and a library service is available for teachers.

(iii) Correspondence Programme. This project is organized by the Institute of Adult Studies of the University College, Nairobi, through technical assistance which provides key personnel for the academic up-grading of unqualified primary school teachers.

(iv) New Primary Approach. The purpose of this project is to develop in primary schools a method of teaching which involves child activity and discovery methods. This project will be continued until the new and more effective teaching method has been introduced throughout the school system.

17.18. *The Finance of Primary Education.*—The ability of the Government to finance these relatively ambitious programmes for primary schools will depend heavily upon improvements in the number of pupils per class. In 1968, there was an average of approximately 32 pupils enrolled in each class, an average which Government regards as uneconomical. If the goal of universal primary education is to be attained, resources must be used more effectively. As a consequence, Government's objective is to raise the average size of primary school classes to 40 pupils by 1974.

THE FINANCE FOR THE RECURRENT COSTS OF PRIMARY EDUCATION

Table 17.5 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74
FINANCED BY—					
School Fees	3,603	3,889	4,176	4,473	4,838
Government	7,281	8,083	8,906	9,829	11,044
TOTAL EXPENDITURE ..	10,884	11,972	13,082	14,302	15,882

17.19. The projected total operating costs of primary schools and sources of finance during the Plan period are shown in Table 17.5. These projections are based upon the following assumptions—

(*a*) that there is steady progress towards the achievement of a target enrolment of 40 pupils per class by 1974;

(*b*) that school fee remissions will increase from 5-10 per cent to 15-20 per cent over the Plan period.

Government will continue its efforts to reduce the costs of primary education through increasing the efficiency of primary school administration and through a close scrutiny of primary school finance. Government has already introduced a system of central tendering for and distribution of school supplies which, when it is fully operative, should result in significant savings over the previous system.

Secondary Education

17.20. Government's policy for secondary education has two main objectives. The first is to expand enrolments at all levels to meet the social and economic needs of society for its general development. The second is to make adequate provision to meet the demands of qualified individuals for their personal development and self-fulfilment. These two objectives are inextricably inter-related and both are taken into account in the 1970-74 Plan for secondary education.

17.21. In planning to achieve these objectives, Government has encountered important constraints. The recurrent costs of operating maintained secondary schools exceed K£4.3 million per year, and, during recent years, costs have been rising at a rate in excess of 16 per cent per year. However, it is estimated that well over K£2 million has already been spent by the people in maintaining *Harambee* secondary schools. This commendable effort is encouraged by the Government who will continue to assist and maintain *Harambee* secondary schools in this Plan period.

17.22. The projected manpower requirements of the country have convinced Government that the expansion of the upper forms in secondary schools must be faster in the next five years than in the last five, and Government has, therefore, decided to open 70 Form V classes during the new Plan.

17.23. In addition, Government intends to take over the financing of new Form I classes, most of which will open at existing *Harambee* secondary schools. The pressure for post-primary education is increasing annually, particularly because many primary school leavers are too young for employment: most of these pupils are 13 years of age. It is, therefore, necessary to continue the expansion programme of secondary education within the next five years as well as to make the curriculum in both primary and secondary education more practical and relevant to the country. New Form I and V classes will open as follows:—

NEW FORM I AND FORM V OPENINGS
(MAINTAINED AND ASSISTED SCHOOLS)

Table 17.6 *Numbers*

Year	Form I	Form V
1970	40	14
1971	30	14
1972	30	14
1973	30	14
1974	30	14

17.24. Table 17.6 shows the implications of this policy for maintained and assisted secondary school enrolments in 1968 and 1974.

17.25. Between 1968 and 1974, total enrolments in maintained and assisted seccondary schools will be increased by 52 per cent or at an annual compound rate of approximately 7.2 per cent. The average annual rate of increase in enrolments in Forms I to IV (lower secondary) is somewhat lower than this at 6.2 per cent per year but considerably higher in Forms V and VI (upper secondary) at 20.1 per cent.

SECONDARY SCHOOL ENROLMENT TARGETS, 1974
(MAINTAINED AND ASSISTED SCHOOLS)

Table 17.7

Form	Enrolment		Percentage Increase 1968–74
	1968 Actual	1974 Planned	
I	15,169	21,530	42
II..	14,388	19,760	37
III	12,889	18,650	44
IV	11,028	16,680	51
TOTAL I–IV ..	53,474	76,620	43
V	1,734	5,160	198
VI	1,328	4,020	203
TOTAL V–VI ..	3,062	9,180	200
TOTAL I–VI ..	56,536	85,800	52

SECONDARY SCHOOL CLASS DEVELOPMENT SCHEDULE, 1969–1974 (MAINTAINED AND ASSISTED SCHOOLS)

Table 17.8 *(Number of Classes)*

FORM	1968	1969	1970	1971	1972	1973	1974
I	420	455	495	525	555	585	615
II	390	420	455	495	525	555	585
III	365	390	420	455	495	525	555
IV	324	365	390	420	455	495	525
TOTAL	1,499	1,630	1,760	1,895	2,030	2,160	2,280
V	88	102	116	130	144	158	172
VI	76	88	102	116	130	144	158
TOTAL	164	190	218	246	274	302	330
TOTAL CLASSES FORMS I–VI	1,663	1,820	1,978	2,141	2,304	2,462	2,610

ENROLMENT IN KENYA SECONDARY SCHOOLS, 1968 AND PROJECTED (MAINTAINED AND ASSISTED SCHOOLS ONLY)

Table 17.9 *Numbers*

FORM	1968	1969	1970	1971	1972	1973	1974
I	15,169	15,930	17,330	18,330	19,430	20,430	21,530
II	14,388	14,670	15,400	16,760	17,730	18,790	19,760
III	12,889	14,200	14,560	15,290	16,640	17,600	18,650
IV	11,028	11,670	13,760	13,800	14,500	15,770	16,680
TOTAL	53,474	56,470	60,850	64,180	68,300	72,590	76,620
V	1,734	2,240	2,780	3,380	4,030	4,740	5,160
VI	1,328	1,510	1,900	2,360	2,870	3,420	4,020
TOTAL	3,062	3,750	4,680	5,740	6,900	8,160	9,180
GRAND TOTAL	56,536	60,220	65,530	69,920	75,200	80,750	85,800
Estimated Numbers of students qualified for UEA ..	—	870	980	1,230	1,530	1,860	2,220

17.26. In the next Plan period, Government intends that opportunities for secondary education should be fully maintained. Primary Standard I enrolments will increase at 6 per cent per year and enrolments in Primary Standard VII will ultimately approach this same rate of growth. In 1968, approximately 1 in 12 Primary Standard VII students were provided with places in maintained Secondary Form I and in 1974 this ratio will be approximately the same.

17.27. Government is less concerned with small changes in the national ratio of Form I places to Standard VII enrolments than it is in the wide inter-provincial variations in this ratio which indicate a far from equitable geographic distribution of opportunities for secondary education. Table 17.10 provides a comparison of provinces with respect to opportunities for secondary education. It is important to remember that within each province, opportunities for secondary vary greatly and although the provincial ratios shown in Table 17.10 will be useful as guides in determining which provinces will receive new secondary schools, the intra-provincial distribution of schools will also be given consideration to ensure that there is fair distribution within each province.

FORM I PLACES AS A PERCENTAGE OF STANDARD VII ENROLMENTS BY PROVINCE, 1968

Table 17.10

Province	1968 Ratio
Central	7·1
Coast	18·6
Eastern	6·7
Nairobi	36·9
North-East	35·0
Rift Valley	8·9
Nyanza	6·6
Western	9·1

17.28. *Expansion of Harambee Secondary Schools.*—The rate of growth of *Harambee* self-help secondary schools has been such that, by 1968, total enrolments in this type of school very nearly equalled total enrolments in maintained and assisted schools. However, a number of factors militate against a continued rapid expansion in *Harambee* school enrolments during the Plan period, 1969-1974. They are:—

(i) Many areas now have a sufficient number of this type of school facility.

(ii) A number of communities have been discouraged from opening more *Harambee* Schools because of the expenses involved.

(iii) With the high rates of output of secondary school students, employment opportunities for the average school leaver have declined sharply. In short, the economic motivation for acquiring a secondary education has diminished.

17.29. Given these factors, it is expected that the net increase in *Harambee* school enrolments will be relatively small, increasing from nearly 45,000 to about 50,000 over the Plan period.

17.30. Government will continue to assist *Harambee* Secondary Schools in ways that will enable them to improve the quality and efficiency of the education they provide and will pursue a policy of consolidating such schools, so that, instead of scattered and numerous *Harambee* Secondary Schools occuring close together, larger units will emerge. During the Plan period, Government will subject unaided school finances to detailed and public scrutiny and intends to exercise greater responsibility over curriculum and staffing in all unaided schools. Too often, unaided schools have provided an educational service which is not only too expensive but also inferior to that obtainable in the maintained schools.

17.31. *Practical Studies.*—Government will also continue its efforts to render the curriculum of secondary schools more relevant to the country's social and economic needs. In practice, this means that there will be a rapid increase in the number of lower secondary schools offering "practical" studies in agriculture, commerce, industrial arts and home science. The purpose of these courses will not be to produce individuals who are qualified to pursue course-related professions upon leaving school but to instil in the children an appreciation for skilled manual work and, to establish some of the basic skills required in a broad range of vocations. Courses of this kind will create a desire on the part of some pupils to undertake vocational training upon leaving secondary school. More important, the course will help to eliminate undesirable and unrealistic attitudes toward these skilled manual vocations which are so essential to national development.

17.32. With the assistance of the International Development Association of the World Bank, Government will undertake a capital programme to create additional and efficient facilities for the teaching of practical courses. The capital programme will include the following projects—

(i) the construction and equipping of 75 additional agricultural workshops;

(ii) the provision of equipment for teaching commercial courses in 30 schools;

(iii) the construction and equipping of 29 home science workshops and laboratories;

(iv) the construction and equipping of 24 industrial art workshops.

The cost of this capital programme for the Plan period will be approximately K£975,000.

17.33. *Science Education.*—The school system is not producing a sufficient number of students with science qualifications to fill existing and proposed places in the higher educational system. The long-run consequence of permitting this situation to continue is that the formal education system will not produce enough engineers, technicians, medical doctors and scientists to meet the requirements of an expanding economy.

17.34. The causes of this failure are several. First, the quality of science instruction is inferior. While there are many excellent science teachers within the secondary school system, there are also many with poor training in both subject matter and teaching techniques. However, it is believed that the initial output from the Kenya Science Teacher Training College, which will be forthcoming early in the Plan period, will lead to an early and steady improvement in the quality of science teaching.

17.35. Secondly, the schools' science laboratories and classes are inadequately equipped. During the first year of the Plan period, the Ministry of Education will undertake a detailed survey of existing facilities, especially in upper secondary schools, with a view to establishing a programme in 1970, whereby supplies and equipment will be improved both in quantity and quality and brought up to an established standard.

17.36. Finally, attrition rates in science streams of upper secondary schools are unreasonably and wastefully high with the consequence that less than one-half of the students entering science streams in Form V eventually qualify to enter science or science-related Faculties at the University level. Government intends to increase the flow of qualified science students leaving Form VI by—

(*a*) improving the Form V selection process;

(*b*) increasing the ratio of Science to Arts streams in upper secondary schools.

17.37. *Finance of Secondary Education.*—Development expenditure for secondary education, projected to 1974 is shown in Table 17.11. Over the Plan period, Government will spend nearly K£8 millions on secondary education facilities. Of this total, approximately K£6 millions will be financed from local resources and K£2 millions will be financed by loans from abroad.

17.38. The falling trend in development expenditure towards the end of the Plan period is largely accounted for by the lumping of I.D.A. project expenditure during the middle years of the Plan period, and by the rise in expenditures for teachers' housing which is offset by the gradual decline in grants for new classes during the latter years of the Plan period.

17.39. Projected total recurrent expenditure for secondary education is shown in Table 17.12. Between 1968 and 1974, recurrent expenditure will grow at an average compound annual rate of somewhat in excess of 8 per cent. The rate of growth is much higher than this during early years of the Plan period, but with the curtailment in the rate at which *Harambee* streams are taken over, falls to a rate which is much lower at the end of the Plan period.

DEVELOPMENT EXPENDITURE—SECONDARY EDUCATION

Table 17.11 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Initial Grants (Equipment for new classes)	502	505	522	522	506	2,557
Teachers' Housing	165	207	248	248	248	1,116
Dormitory Construction and Renovation	84	84	84	72	60	384
Classrooms and Administration Blocks	130	130	130	130	130	650
Water and Sanitation	24	24	22	20	20	110
Science Laboratories	60	60	60	60	60	300
Miscellaneous Construction ..	—	75	80	60	60	275
Extensions* (27 secondary schools)	—	350	420	420	350	1,540
*Agricultural Workshops (75) ..	—	175	175	105	70	525
*Equipment for Commercial Courses (30 classes)	—	38	48	54	48	188
*Industrial Arts Workshops (24)	—	26	36	36	30	128
*Home Science Workshops (29)	—	27	37	37	33	134
TOTAL	965	1,701	1,862	1,764	1,615	7,907

*To be financed by I.D.A. loan agreement now pending approval by the International Bank for Reconstruction and Development.

However, even with a curtailed expansion programme for secondary education late in the Plan period, total recurrent expenditure for secondary education will grow by 51 per cent between 1968 and 1974.

PROJECTED RECURRENT COSTS OF SECONDARY EDUCATION

Table 17.12 *K£'000*

	1969/70	1970·71	1971/72	1972/73	1973/74
Form I–IV	3,722	4,048	4,359	4,669	4,968
Form V–VI	637	730	824	918	1,012
TOTAL	4,359	4,778	5,183	5,587	5,980

Secondary Technical and Vocational Education

17.40. Since a steady and reliable supply of technologists, technicians and craftsmen is essential for any nation attempting to industrialize and modernize its economy, the Government has, since Independence, created a technical education structure designed to provide training for a wide range of occupations. Generally, technonogists are trained at the University level where degree courses in Architecture, Commerce, Engineering, Science, Agriculture, Surveying, Medicine and Veterinary Science are offered. A diploma course in Domestic Science has also been available (this is now being changed to a degree course at Kenyatta College). Technician and pre-technician training is provided at the Kenya Polytechnic, Mombasa Technical Institute and various secondary technical schools. The formal training of craftsmen takes place at various secondary vocational schools.

17.41. Both secondary technical schools and secondary vocational schools now follow a four-year course, the first two years of which are common to both types of schools. After the second year, the Kenya Junior Secondary School Examination and academic records will be used to divide students into two streams one of which is pre-craft (vocational) and the other pre-technical (technical).

17.42. *Secondary Technical Schools.*—These schools are located at Mombasa, Nairobi, Nakuru and Sigalagala, with only the Nakuru Secondary Technical School offering Forms V and VI and preparing students to sit the Higher National Certificate Examinations. A commercial course for girls is also located at Nakuru. The specific aims of the Secondary Technical School are to offer its students a basic general education with a technical bias and to supply candidates for University training as technologists. In the Secondary Technical School, students will acquire manipulative skills, mechanical drawing, mathematics and science, thus entering the University with an understanding of the requirements of the engineer. The Cambridge School Certificate curriculum is being followed in these schools, but has been altered to give emphasis to geometric drawing, building construction and metal work engineering. Biology and History are the major omissions from the regular curriculum.

17.43. Following the establishment of the pilot Secondary Technical School at Nakuru, the other schools were either established or brought up to standard with significant financial assistance from the International Development Association for the construction of buildings and the acquisition of equipment. This development will be completed by the end of the first year of the 1970-74 Plan period.

17.44. During the Plan period, an additional secondary technical school will be established at Nyeri with International Development Association assistance. This school will involve a capital expenditure of approximately K£173,600 and, when completed and fully operational, will have a capacity enrolment of 840 students.

ENROLMENTS IN SECONDARY TECHNICAL SCHOOLS 1968 AND 1974

Table 17.13 *Numbers*

School	1968 (Actual)	1974 (Targets)
Mombasa	355	420
Nairobi	441	480
Sigalagala	180	420
Nakuru	620	687
Nyeri	—	840
TOTAL	1,596	2,847

17.45. Table 17.13, above, shows the total enrolment projections for Secondary Technical Schools over the Plan period. Almost all of the projected increase in total enrolments will be attributable to the establishment of the new school at Nyeri.

17.46. *Finance of Secondary Technical Schools.*—Table 17.14 shows the projected development and recurrent expenditure for the Plan period 1970-1974.

DEVELOPMENT AND RECURRENT EXPENDITURES
SECONDARY TECHNICAL SCHOOLS

Table 17.14 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Recurrent Expenditures ..	160	174	197	217	237	985
Development Expenditures ..	19	48	51	51	22	191

17.47. *Secondary Vocational Schools and Mombasa Technical Institute.*—Soon after the publication of Government's manpower survey in 1965, and after the recommendations of the Ominde Report of 1964 had been fully examined, Government began to accelerate the development of its Secondary Vocational Schools. During the Plan period 1970-1974, this accelerated development will be continued and existing technical and trade schools at Kaiboi, Mawego and Meru will be upgraded. Secondary Vocational Schools will then be located at Eldoret, Kabete, Kaiboi, Kisumu, Machakos, Mawego, Meru and Thika. Mombasa Technical Institute also operates a Secondary Vocational School course.

17.48. The purpose of the Secondary Vocational Schools is to develop the basic skills of students for specific occupations while, at the same time, providing them with a quality secondary school education. The academic subjects covered in the curriculum are, however, designed to relate more specifically to practical situations than are the University preparatory curricula. After the first two years of general secondary education (which includes technical drawing, metal work and wood-work), students enter the pre-craft programme which, after the first year, enables them to sit up to Part I, City and Guilds and after the second year, Part I of the Mechanical Engineering Craft Practice Examinations. After the completion of a full four-year course, students are eligible for technician sandwich courses at Kenya Polytechnic and Mombasa Technical Institute.

17.49. Government has adopted a policy of expanding enrolments at existing Secondary Vocational Schools rather than building new schools. Over the Plan period, provision will be made for the achievement of a target increase in total enrolments of 78 per cent involving development expenditure of approximately K£788,000. Enrolment projections are shown in Table 17.15 below.

ENROLMENT IN MAINTAINED SECONDARY VOCATIONAL SCHOOLS, 1968 AND 1974

Table 17.15 *Numbers*

School	1968 (Actual)	1974 (Target)
Eldoret	228	370
Kabete..	482	650
Kaiboi..	74	360
Kisumu	168	300
Machakos	183	370
Mawego	136	490
Meru	145	370
Thika	306	400
Mombasa Technical Institute	490	625
TOTAL	2,212	3,935

Christian Industrial Training Centres at Nairobi and Mombasa, which are private institutions, also offer Secondary Vocational Training. Projected enrolments in these institutions are shown in Table 17.16.

ENROLMENT IN PRIVATE SECONDARY VOCATIONAL SCHOOLS, 1968 AND 1974

Table 17.16 *Numbers*

School	1968 (Actual)	1974 (Target)
Christian Industrial Training Centre, Nairobi	144	285
Christian Industrial Training Centre, Mombasa	69	315
TOTAL	213	600

17.50. *Finance of Secondary Vocational Schools.*—Table 17.17 shows projected development and recurrent expenditure for the Plan period.

DEVELOPMENT AND RECURRENT EXPENDITURES SECONDARY VOCATIONAL SCHOOLS

Table 17.17 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Development Expenditures ..	79	177	256	177	99	788
Recurrent Expenditures ..	231	283	314	370	373	1,571

Teacher Training

17.51. The development programme for teacher training has two major objectives. They are—

(*a*) to supply a sufficient number of trained teachers to meet the additional requirements imposed by the planned expansion of the primary and secondary school systems, as well as the demands imposed by the expansion of the teacher training system itself;

(*b*) to reduce the numbers of unqualified teachers and teachers employed on expatriate terms. In 1968, nearly 27 per cent of all primary school teachers were classified as professionally unqualified. In secondary schools and teachers colleges, a majority of teachers are non-citizens.

17.52. In order to achieve these objectives, Government plans to increase enrolments at primary and secondary teacher training institutions by an amount sufficient to produce the following outputs of teachers.

OUTPUTS REQUIRED FROM TEACHER-TRAINING INSTITUTIONS

Table 17.18 *Numbers*

	1969	1970	1971	1972	1973	1974
Primary School Teachers ..	2,500	2,700	2,900	3,200	3,200	3,700
Teachers for Secondary Schools and Teacher Training Colleges	417	510	600	640	670	700

17.53. *Primary Teacher Training Colleges.*—During the Plan period, Government will pursue a programme which is aimed at increasing enrolments and consolidating existing primary teacher training facilities. In addition, Government will increase the output of teachers with school certificate qualifications relative to those with lower qualifications.

17.54. In accordance with these objectives, the number of primary Teacher Training Colleges will be reduced from 24 to 17 with each college having an enrolment of approximately 480 students. By the end of the Plan period, each of the following colleges will have been improved and expanded. Gradually the majority of the remaining colleges will be phased into other educational uses.

Kilimambogo	Eregi	Kagumo
Kericho	Machakos	Kaimosi
Kigari	Siriba	Kamwenja
Highridge	Thogoto	Shanzu
Egoji	Mosoriot	Meru
Asumbi	Kisii	

The reduction in the number of primary teacher training institutions from 24 to 17 will enable Government to realize substantial long-run economies through the operation of larger but more efficient units. However, substantial alterations and extensions of the 17 remaining colleges will be necessary and will involve capital outlays of approximately K£2.6 millions over the Plan period.

17.55. Table 17.19 shows the demand for and supply of primary school teachers for the Plan period.

REQUIREMENTS AND SUPPLY OF PRIMARY SCHOOL TEACHERS

Table 17.19 (*thousands*)

	1969	1970	1971	1972	1973	1974
Primary School Pupils	1,283	1,385	1,487	1,593	1,723	1,833
Pupil/Teacher Ratio	34	35	36	37	38	40
Demand for Teachers	37·7	39·6	41·3	43·1	45·3	45·8
SUPPLY—(Trained Teachers)						
(*a*) From previous year less 4 per cent wastage	26·4	28·8	31·3	34·0	36·9	40·0
(*b*) College Output	2·4	2·5	2·7	2·9	3·2	3·2
(*c*) Upgraded Teachers ..	1·1	1·1	1·2	1·2	1·3	1·3
(*d*) Untrained Teachers (Residual)	7·8	7·2	6·1	5·0	3·9	1·3
Supply of Teachers	37·7	39·6	41·3	43·1	45·3	45·8

17.56. In order to achieve the required outputs of teachers from the Primary Teacher Training Colleges, the following first-year enrolments are planned.

FIRST YEAR ENROLMENTS, PRIMARY TEACHER TRAINING COLLEGES

Table 17.20 *Numbers*

Qualifications	1970	1971	1972	1973	1974
P.1	825	875	1,000	1,000	1,000
P.2	1,325	1,200	1,525	1,525	1,525
P.3	1,350	1,400	1,525	1,525	1,525

NOTE—P.1 teachers have a basic qualification of School Certificate plus two years training. P.2 teachers have a basic qualification of at least two years of secondary education, but without a School Certificate, plus two years training. P.3 teachers have a basic qualification of C.P.E. plus two years training.

17.57. The first-year enrolments in Table 17.20 above, will produce the following output of teachers.

OUTPUT OF PRIMARY TEACHERS FROM TEACHERS TRAINING COLLEGES

Table 17.21 *Numbers*

Qualifications	1970	1971	1972	1973	1974
P.1	460	644	759	805	920
P.2	1,012	1,081	1,219	1,104	1,403
P.3	1,242	1,127	1,242	1,288	1,403
TOTAL	2,700	2,900	3,200	3,200	3,700

17.58. *Secondary School Teachers Training Colleges.*—Generally, secondary school teachers are trained at the University College, Nairobi, at Kenyatta College and at the Kenya Science Teachers College. However, courses providing secondary school teaching qualifications are also tought at Egerton College (Agriculture) and Kenya Polytechnic (Commercial Studies). There are two grades of secondary schools teachers. Graduate teachers have a bisic qualification of a University degree, with or without a diploma in education. The "SI Teacher" has a basic qualification of School Certificate, plus three years of teacher training, or Higher School Certificate plus one year of teacher training.

17.59. During the Plan period, the programmed expansion of teacher training institutions will radically alleviate the severe shortages of teachers which have been experienced in the recent past. By 1974, there will be a surplus of qualified Kenyan secondary school teachers in excess of the needs

SUPPLY AND DEMAND FOR TEACHERS; SECONDARY SCHOOLS AND PRIMARY TEACHER TRAINING COLLEGES, (MAINTAINED AND ASSISTED SCHOOLS)

Table 17.22 *Numbers*

	1969	1970	1971	1972	1973	1974
DEMAND—						
Forms I–IV	2,494	2,640	2,748	2,842	2,916	2,964
Forms V–VI	285	327	369	411	453	495
TOTAL	2,779	2,967	3,117	3,253	3,369	3,459
Teacher Training Colleges ..	186	210	210	245	245	250
TOTAL DEMAND ..	2,965	3,177	3,327	3,498	3,614	3,709
SUPPLY—						
(*a*) Previous year minus 4 per cent	1,136	1,455	1,797	2,215	2,702	3,208
(*b*) Output from Teachers Training Institutions ..	380	417	510	600	640	670
(a+b)	1,516	1,872	2,307	2,815	3,342	3,878
Deficit (−) or surplus (+) ..	−1,449	−1,305	−1,020	−683	−272	+169

NOTES—

1. The assumed number of teachers per class underlying the estimates in Table 17.22.

	1969	1970	1971	1972	1973	1974
Forms I–IV	1·53	1·50	1·45	1·40	1·35	1·30
Forms V–VI	1·50	1·50	1·50	1·50	1·50	1·50

2. The initial teacher deficits (now made up by expatriate teachers) are shown to disappear over the Plan period. However, it should be borne in mind that private and *Harambee* schools will draw a small but indeterminate number of teachers into their service, thus altering somewhat the total supply of teachers available to the maintained system.

PLANNED PRODUCTION OF TEACHERS FOR SECONDARY SCHOOLS AND PRIMARY TEACHER TRAINING COLLEGES

Table 17.23

	1970	1971	1972	1973	1974
Kenyatta College	310	320	330	350	370
Kenya Science Teachers College	50	90	120	120	130
Egerton College	40	40	40	40	40
SUB-TOTAL	400	450	490	510	540
University Graduates	110	150	150	160	160
TOTAL	510	600	640	670	700

of the maintained and assisted system. This surplus will find employment in the now extensive system of unaided *Harambee* schools and will thus contribute significantly to improvement in the quality of teaching provided in these institutions.

17.60. *Supply and Demand for Secondary School Teachers.*—The supply and demand for secondary school teachers are shown in Table 17.22. The output of teachers from secondary teacher training institutions is shown in Table 17.33.

17.61. Special attention will also be given to the production of teachers of practical and technical subjects which, as a consequence of curriculum reform, are being introduced into the lower secondary education system. This programme includes—

(*a*) the Kenya Science Teachers College will offer Industrial Arts as subject. Teachers will be able to teach one or more science subjects in secondary schools in addition to their subject of specialization;

(*b*) a programme for training teachers of agriculture is already under way at Egerton College. The intake into this programme is 45 students per year with the expectation that 40 students will finish the course. These teachers will be qualified to teach Science in Forms I and II and Agriculture in all forms;

(*c*) Home Science teachers will be trained at both Kenyatta College and the University in sufficient numbers to teach this subject in all maintained girls' secondary schools;

(*d*) a training programme has been undertaken at Kenya Polytechnic, whereby teachers for technical and commercial subjects will be prepared. Bursaries will be provided for 115 secondary school leavers (preferably from secondary technical schools) to undertake courses in these subjects. The courses will take four years to complete and will involve practical work in commercial and industrial firms sandwiched between periods of formal training at the Polytechnic;

(*e*) to meet immediate needs for technical teachers, Government is establishing a short course in technical education for experienced technicians and craftsmen who may wish to enter the teaching service.

17.62. *Kenyatta College.*—The buildings and facilities at Kenyatta College, after long and heavy use, are now in need of extensive renovation. In addition, new structures are required for a Library and a student's centre and, early in the Plan period, the College must obtain a new water supply. These development projects will cost approximately K£750,000.

17.63. *Kenya Science Teachers College* (with Kenyatta College) is the other major secondary teacher training institution. This institution will reach a capacity enrolment of approximately 1,000 students early in the Plan period. The development programme for this institution has been completed and additional development expenditures are not contemplated before 1974.

Development Expenditures

Primary Teacher Training Institutions

Table 17.24

College	*K£'000*
Kilimambogo	154
Kericho	158
Kigari	179
Highridge	266
Egoji	161
Asumbi	193
Eregi	131
Machakos	161
Siriba	28
Thogoto	165
Mosoriot	99
Kisii	140
Kiamosi	109
Kagumo	167
Kamwenja	170
Shanzu	159
Meru	160
	2,600

Development and Recurrent Expenditure, Primary Teacher Training Institutions

Table 17.25 | *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Development	—	600	800	700	500	2,600
Recurrent	589	665	695	810	830	3,589

Note:
Per pupil recurrent costs for 1968 are computed at K£165 and K£190, for 1969 and 1970, and K£200 for remaining years. The lower cost for 1968 resulted in substantial inconvenience in terms of lack of necessary teaching materials and equipment.

Development Expenditure, Secondary Teacher Training Colleges

Table 17.26 | *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Development*	60	170	220	215	85	750
Recurrent†	257	299	329	360	386	1,631

*These expenditures relate to Kenyatta College only. Kenya Science Teachers College will not require further development over the Plan period.

†A substantial portion of the recurrent expenditures for Kenya Science Teachers' College is borne by the Swedish Government. The difference between total recurrent expenditure and the total cost to Kenya is the Swedish Government contribution.

Kenya Polytechnic

17.64. When University College Nairobi was created in 1958, the Colonial Government built a new Technical College, the Kenya Polytechnic, which opened in 1961 with the purpose of training middle and higher level manpower in collaboration with, and to serve the needs of, industry and commerce. The major function of the Polytechnic is to provide courses of instruction for apprentices and trainees in industry and commerce which, when linked with practical in-service training, produce skilled and competent personnel. It also provides courses to enable students to qualify for University entrance and other forms of higher education, and pre-employment courses whereby students attain a degree of competency enabling them to be usefully employed and capable of on-the-job-training. The Polytechnic also acts as an advisory centre for the development of the Secondary Technical and Vocational Schools.

17.65. The majority of the courses at the Polytechnic are offered on a part-time basis (sandwich, block-release, day-release or evening classes) for sponsored students from Government, the other public services and the private sector. Good relationships and close liaison have been established between the institution and the organizations sponsoring students. Industry and Commerce are represented on the Polytechnic's Board of Governors and on its Department Advisory Panels.

17.66. The Kenya Polytechnic is administered by a Board of Governors and is grant aided by the Ministry of Education. It currently has six departments—Engineering, Building, Science, Commerce, Catering and Printing. At present, the courses range from Form I level to degree equivalent. In a total enrolment of 2,006 students, approximately 1,500 (75 per cent) are on courses at post-School Certificate level and some 300 of these are of post-Higher School Certificate standard. This compares with a total enrolment of 650 students in 1963.

17.67. Most courses lead to external examinations (City and Guilds of London Institute, University of London, G.C.E., A.C.C., C.I.S., R.S.A., etc.) and examination results have been extremely good. Such courses are gradually being modified to suit Kenyan conditions and requirements, whilst new programmes have been introduced to meet specific local needs.

17.68. Since 1963, the Engineering and Building Departments of the Kenya Polytechnic have been receiving aid from the U.N. Development Programme (Special Fund), through UNESCO, in the form of specialist teachers, equipment and Fellowships for the training of local teaching staff. This aid has resulted in a rapid and continuing expansion of these two Departments—in the case of Engineering from an enrolment of 390 students in 1963 to 1,093 in 1969, and in the case of Building from 90 to 354 students. The other Departments have grown more slowly and have the following current enrolments, Science 246, Commerce 166, Printing 80, Catering 60.

17.69. New training schemes are now planned for the Printing, Catering and Commerce Departments, and it is anticipated that the growth of these departments will be accelerated in the next few years.

17.70. By 1965, the growth of the Polytechnic had led to an acute shortage of teaching accommodation and a large-scale expansion programme was begun to provide additional classrooms, laboratories and workshops as well as an assembly/examinations hall, administrative offices, a library, a canteen and common rooms. The new buildings were completed by the end of 1967 but, with the continuing expansion of the Polytechnic and the introduction of additional courses in new fields, further hostel facilities, library space and teaching accommodation will be required during the next two years.

17.71. *Objectives 1970-1974.*—The goals for technical training over the period 1970-74 are:—

(i) An 8 per cent per year increase in enrolments, so that the total in 1974 will be 3,000 compared with 1,900 in 1968.

(ii) The introduction of new Departments:—

Teacher Training Department.

Hotel Management Department.

Department of Commerce/Business Studies.

(iii) A continuing introduction of new courses to meet the specialized needs of industry and commerce, and the development of higher level professional courses and a gradual reduction of preliminary courses as the output from the Secondary Technical and Vocational Schools increases.

DEVELOPMENT AND RECURRENT EXPENDITURE, KENYA POLYTECHNIC

Table 17.27 — *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Recurrent Expenditure	214	236	254	270	290	1,264
Development Expenditure ..	85	130	140	72	45	472

DEVELOPMENT PROJECTS—KENYA POLYTECHNIC

Table 17.28 — *K£'000*

Project	Cost
1. Hostel for 250 students	150
2. Agricultural Engineering Workshops	15
3. New Library	22
4. Workshop Block for Building Department ..	59
5. Two Lecture Theatres for 60 students	11
6. Classrooms Block (18 classrooms)	39
7. Extension to Canteen/Common room	21
8. Site Works, fees etc.	35
9. Rehabilitation of existing accommodation ..	20
10. Equipment for new courses	60
11. Purchase of land	40
	472

The University of Kenya

17.72. The establishment of the University of East Africa in June 1963 brought together in a formal association, Makerere University College in Kampala, the former Royal College in Nairobi and the newly established University College in Dar es Salaam. The purpose of the association was to help the three constituent colleges to use scarce educational resources as effectively as possible and to meet common problems through joint action. The University of East Africa Development Plan for the first triennium was developed with these objectives.

17.73. The most striking feature of the University scene in East Africa, from its inception, has been the speed of growth and development. At University College Nairobi, undergraduate enrolment has nearly trebled in 4 years, rising from 602 in 1964/65 to 1,743 in 1968/69. Accompanying this numerical growth, there has been a corresponding increase in the range of subjects offered at each of the colleges, including Nairobi.

17.74. However, a new university of Kenya will be inaugurated in 1970 to take the place of University College, Nairobi, and the University of East Africa will cease to function.

17.75. The University's Development Plan is formulated on a triennial basis for the years 1970-1973 and, as a consequence, must be amended to conform with the national Development Plan. Data for the year 1974 is entered in the national Development Plan on the basis of an extrapolation based upon probable developments. In the future, development plans for the University will be formulated to conform with the period of the national Development Plan.

17.76. Projected undergraduate enrolments at the University for the Plan period reflect national manpower priorities. These priorities require rapid rates of expansion for science and science-based faculties and relatively lower rates of growth for arts and arts-related faculties. Projected undergraduate enrolments at the University are shown in Table 17.29.

PROJECTED UNDERGRADUATE ENROLMENTS AT THE UNIVERSITY OF KENYA

Table 17.29 *Number of Students*

	1968/69 (actual)	1973/74 (Projected)	Annual Rates of growth (per cent)
Architecture, Design and Development ..	162	312	14·0
Arts	401	646	10·0
Commerce, including Home Economics ..	369	300	4·6*
Engineering	337	546	11·0
Medicine	69	488	48·0
Science	221	574	21·0
Veterinary Science	184	282	8·9
Law	—	125	—
Agriculture	—	130	—
Journalism	—	30	—
	1,743	3,433	14·5

*Because of the establishment of Faculties of Commerce at University Colleges at Dar es Salaam and Makerere, there will be a significant reduction in enrolments in the Faculty of Commerce early in the Plan period. The places which were formerly allocated to students from Tanzania and Uganda will gradually be filled by Kenyans.

17.77. *Faculty of Architecture, Design and Development.*—There are two departments in this faculty, one concerned with Architecture and Physical Planning Development and the other with Art and Design. For the former department, a degree structure was introduced in academic year 1968/1969, whereby a student may obtain a first degree after three years of study in either Building Economics, Architectural Studies or Land Economics. Students who have earned these degrees will not possess the qualifications necessary for full professional acceptance, although they may be employed in technical, managerial or administrative positions. Qualified students who wish to gain full professional acceptance must elect to undertake two additional years of postgraduate study. Thus, a student who wishes to qualify as an architect will undertake a three-year-plus/two-year course in Architecture.

17.78. The phased introduction of this new degree structure will involve the establishment in 1970/71, of new postgraduate courses in Town and Country Planning, Quantity Surveying and Estate Management, with enrolments determined strictly by national manpower needs.

17.79. During the first year of the Plan period, the Department of Design will be separated into two departments—a Department of Fine Arts and a Department of Industrial Design. The status of the former department is still uncertain, pending a decision on the part of University officials with respect to how much the University should be involved in the training of teachers of Art.

17.80. This faculty also contains a Housing Research and Development Unit, the purposes of which are to undertake research on the technical, economic and social aspects of housing and to provide advisory and consultative services to public bodies. During the Plan period, a second research and development unit may be established with similar purposes in the field of Industrial Design. This project is now under discussion.

17.81. *Faculty of Arts.*—This faculty consists of the departments of Economics, Education, English, Geography, Government, History and Sociology. During the first year of the Plan period, a new department of Philosophy and Religious Studies will be established. During academic year 1970/71 the department of Education will become a separate Faculty. Proposals to establish one or more departments of Language and Literature are under consideration, as is a proposal to provide options for a B.A. degree within a new Faculty of Law.

17.82. The Faculty of Arts has a significant professional orientation in terms of training secondary school teachers. Arts students are encouraged to include Education and one term of practical work as part of their undergraduate studies and it is expected that, by the end of Plan period, one-half of all students in this faculty will elect to take such a degree.

17.83. Another area in which the faculty may contribute to the training of professionals is in the field of Economics where national manpower requirements are not being met. During the Plan period, the staff of the department of Economics will be increased significantly. During academic year 1969/70, a new B.Phil. degree programme has been established, designed to provide additional training for practical economists with first degrees and to establish a foundation for more advanced work.

17.84. *Faculty of Education.*—The Department of Education was started in 1966, a year earlier than originally planned, because of the urgency of training more Kenyan teachers for secondary schools. Within the University, the Department now has a three-fold role. This is, first, to train undergraduates from both Arts and Science during their three-year degree courses for teaching posts in secondary schools; secondly, to provide a one-year postgraduate course for graduates of the University of East Africa and other universities in preparation for secondary teaching; thirdly, to provide a B.Ed. course for practising teachers without a degree who wish to become lecturers in teachers colleges. The Department also has commitments, outside the University, to a programme of research, curriculum development and in-service teacher training in partnership with the Kenya Institute of Education.

17.85. As the Department has grown and developed, it has been felt that all of these activities do not fit happily within the normal Arts faculty structure. Therefore, plans are being formed for Education to become a separate faculty in 1970/71.

17.86. *Faculty of Commerce.*—Planning for the B.Comm. Degree courses is complicated by the fact that Makerere and Dar es Salaam will be inaugurating degree programmes in Business Studies in 1970/71. The annual intake of students in the current Plan has varied from around 120 to 140, with approximately one-third of the total being sponsored by each of the three East African countries and small numbers from neighbouring countries. Thus, the current intake of Kenya students is approximately 40 each year, which is inadequate to meet the requirements of Kenya business organizations. It is proposed that this intake be doubled over the course of the next Plan period to meet the general demand for business graduates and that a further additional number, perhaps 20 by 1972/73, be admitted with a view to specialized training in hotel management. This specialization would probably serve the whole of East Africa. Within "general business studies", it is hoped that co-operation will continue between the three University Colleges, so that final-year specializations may be developed at each college.

17.87. *Faculty of Engineering.*—Planning for this faculty is complicated, on the one hand, by the knowledge that the colleges at both Dar es Salaam and Makerere are considering the establishment of engineering faculties and, on the other hand, by uncertainty whether either or both of these faculties will be established within the Plan period.

17.88. In any event, the major concern of the Faculty of Engineering over the Plan period will be the improvement in the quality of the degree courses being offered by providing an increasing amount of practical work within the regular degree programme. Normally, the engineering student receives his practical training during vacation employment and a period of quasi-apprenticeship training in his first job. However, East Africa does not yet possess enough engineering firms of sufficient size to provide the kind of training required, with the consequence that many young engineers have an unreasonable amount of responsibility thrust upon them within a short period after graduation.

17.89. Ways of correcting this dangerous situation are being examined and it is probable that proposals will be formulated to introduce the necessary changes in two stages—

(i) the academic year will be lengthened to include a fourth term, the total length of the undergraduate course remaining three years and one term;

(ii) the course will be lengthened to four years. Under this approach, during stage (i), students from all Departments would spend one term (three months) in rotation during their first year in a training workshop, preferably at the Industrial Training Centre of the Ministry of Labour. Mechanical engineering students would spend a further term in the workshop, during their second year, while civil and electrical engineers would be placed with firms to obtain site or industrial experience. During the third year, all students would be given another term of site or industrial experience.

17.90. For planning purposes and after discussion with the authorities in Uganda and Tanzania, it is assumed that annual intakes of 40 students each from Uganda and Tanzania, with 80 students from Kenya, with a small number from elsewhere will provide a total first-year enrolment of 170. While the present enlarged Faculty buildings and laboratories were designed for an annual intake of 120 students, with minor capital expenditure and revisions to the time-table to obtain more intensive use of the laboratories, it is possible to accommodate up to 200 students in the first year, though with some inconvenience.

17.91. Should a second Faculty of Engineering in East Africa be opened before the end of the next Plan period and the number of non-Kenyan students begin to run down, this will provide an opportunity for the transfer to a four-year course to begin, without any increase in buildings and equipment. Such a change in the length of course will take precedence over raising the number of Kenya entrants above 80.

17.92. *Faculty of Medicine.*—The Faculty of Medicine began teaching in July 1967, starting with a small first-year class of 30 with the aim of expanding year by year to reach an annual output of doctors of 80 by the late 1970's. Allowing for a 10 per cent failure rate in each of the two pre-clinical years, but no significant failures in the three clinical years, this output requires an intake of about 100 students each year. In order to reach this level, planning for the Faculty envisages an intake rising by 15 students annually until 1972/73.

17.93. The primary purpose of the Faculty of Medicine is to produce Kenyan doctors to staff the medical services provided by the Government, local authorities and private organizations. As a consequence, the clinical teaching given in the degree programme is of particular importance. It is in this area that the main development will take place during the Plan period. Apart from the teaching at Kenyatta National Hospital, students will be given a sound practical introduction to the importance of preventive and community medicine, including Social Obstetrics and Paediatrics, at a District Hospital and its associated chain of Health Centres and Clinics.

17.94. With the development of clinical teaching, it will be necessary to introduce additional special subjects into the programme. This can be best done by maintaining the closest collaboration between the faculty staff and the consulting staff of Kenyatta National Hospital. In due course, it will be necessary to form new departments to look after these special subjects.

17.95. Post-graduate studies centre mainly around the preparation for the M.Md. degree which can be obtained, at present, in Medicine, Surgery, Obstetrics and Gynaecology. Paediatrics and Public Health may be added during the Plan period.

17.96. The Department of Advanced Nursing was established within the Faculty of Medicine in 1968/69 with the object of preparing selected members of the nursing profession to fill administrative and teaching posts in the hospitals and health services of East Africa. Candidates for the course must be Registered Nurses or equivalent and have approved practical experience. A Diploma is awarded at the end of a two-year course which includes supervised field-work. The first entry in 1968/69 numbered 11 and it is proposed to increase this to about 25 by 1973/74.

17.97. *Faculty of Science.*—A shortage of laboratory facilities has provided an important constraint limiting the growth of this faculty. As a consequence, the number of new first year students has been limited to 90 during each of the last two years. However, given the urgency of producing greater numbers of students trained in Science, the faculty will increase its annual intake of students to 120 during each of the first years of the Plan period, even though this will result in conditions which are even more cramped than is currently the case. During the academic year 1971/72, the completion of new buildings for both the biological and physical sciences will enable the intake of first-year students to increase to 200 by the last year of the Plan period.

17.98. The Faculty's first priority is for a new department of Biochemistry which will be established within the Plan period.

17.99. *Faculty of Veterinary Science.*—The facilities of the Faculty of Veterinary Science were planned for an annual intake of 50 students to be drawn from all East African countries. The demand for places from East Africa and elsewhere reached 60 in 1968/69 and is likely to continue to increase to as many as 70 by 1973/74. It should be possible to deal with the increase in numbers with only small additional capital expenditures.

17.100. No major changes are contemplated in the undergraduate degree structure or content and new developments will be in the direction of increased research and postgraduate work. In particular, a postgraduate course in food hygiene and processing will be introduced with the co-operation of the Faculty of Agriculture.

17.101. *The Institute for Development Studies.*—The Institute for Development Studies grew out of the Centre for Economic Research. It now consists of two divisions, both well established. The Cultural Division concentrates its resources on studies of the indigenous Art, Literature and Music of the peoples of Kenya and will play an increasingly important part in providing undergraduates with an understanding of our national culture.

17.102. The Social Science Division of the Institute has been working on problems of applied research of national importance, in close collaboration with several Ministries of the Government. It has done most useful work in a number of areas, and is also making a significant contribution to the training of Kenyan Social Scientists in research methods.

17.103. *New Faculties and Schools.*—There are three fields in which the University will be undertaking new developments in the near future; Journalism, Agriculture and Law.

Training in Journalism was first offered three years ago by the International Press Institute with University College acting as host. These were short courses lasting six months and when they came to an end in 1968, it was felt necessary to make more permanent arrangements for the early introduction of longer courses at a higher level. Plans are now well advanced to start a School of Journalism offering a two-year Diploma course in 1969/70. The course would be available to practical Journalists from both the public and private sectors, working in newspapers and other media, in the English-speaking countries of Eastern and Central Africa. In the first instance, approximately 30 students will be enrolled every two years with all students being sponsored by their employers.

17.104. Training of Kenya Lawyers has been undertaken so far at University College, Dar es Salaam, at the Kenya School of Law and overseas. The University already has a well-established Department of Law in the Faculty of Commerce, teaching a major element of the B. Comm. degree and giving service courses to a number of other departments. It is desirable to centralize legal education by offering a law degree at the University from 1970/71; at that time it is proposed to establish a separate Faculty of Law. In the future the Ll.B. degree will be the normal academic qualification required for a practicing lawyer in Kenya, who will, in addition, be required to serve a minimum of one year in articles and complete further professional training at the Kenya School of Law before admission to the Roll of Advocates. First-year entry to the Ll.B. course is expected to be 40 students in 1970/71.

17.105. A Faculty of Agriculture will also come into being at University College at the start of the next Plan period. For purposes of meeting manpower requirements, the aim is to achieve an output of 80 graduates per annum by 1980. This implies that student intakes should reach 90 by 1978. The first-year intake will be between 30 and 40 students.

17.106. The B.Sc. in Agriculture is to be a three-year degree, broadly based, covering both the scientific and social aspects of Agriculture with all students taking all subjects in the curriculum. Specialization will not come till after the first students have graduated. In both undergraduate and the future postgraduate programmes there will be links with the Faculty of Veterinary Science.

17.107. *Research at the University.*—Research is the principal activity that distinguishes universities from other institutions of post-secondary education. It is through its research that a university comes to grips with problems of national concern, and its success in imparting relevance and urgency to its teaching is intimately related to the quality, range and focus of the research carried out within it. Furthermore, it is the quality of a university's research product that, more than any other factor, determines its standing in the world of learning. Research already plays an integral part in the activities of University College, Nairobi. Until now, however, it has been subordinate to the undergraduate teaching function, partly because of the over-riding need in the early years after Independence to produce graduates to fill administrative, professional and managerial posts, and partly because of the high cost of postgraduate work. The new University expects a significant increase in research activity over the next few years. Some of the reasons for this relate to the needs of contemporary Kenya: others are connected with the academic growth and maturity of the College.

17.108. Full-time research units within the College currently comprise the Institute for Development Studies and the Housing Research and Development Unit. In addition, a research team in entomology, provided by the

University of Giessen, has begun work in the Faculty of Science (to transfer in due course to the Faculty of Agriculture), and an Industrial Design, Research and Development Unit has recently been created. A case can also made out for a full-time research unit in the Faculty of Veterinary Science, since many problems of tropical animal disease are unlikely to be solved until tackled by integrated teams of research workers. Research units and institutes are highly efficient tools for the pursuit of research problems of national priority that cannot await the results of the part-time researcher; they facilitate inter-disciplinary research, and, in particular, they reduce the costs of research by promoting the sharing of expensive overheads.

17.109. Many departments will also engage in consulting work to Government Institutions and to industrial and other enterprises. Such activity facilitates the efficient use of College resources and the rapid utilization of accumulated knowledge; it is also of great assistance in identifying priority areas for further research.

17.110. *Development and Recurrent Expenditure.*—The implementation of all the programmes outlined for the University will require a total development expenditure of K£3.7 million.

DEVELOPMENT EXPENDITURE—UNIVERSITY OF KENYA

Table 17.30 (*K£ thousands*)

Building, Teaching and Research	1,339
Staff Housing	736
Sports facilities	237
Other	628
Equipment	489
Library	217
Furniture	54
TOTAL	3,700

DEVELOPMENT AND RECURRENT EXPENDITURE, UNIVERSITY OF KENYA

Table 17.31 (*K£'000*)

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Development Expenditures	850	900	750	600	600	3,700
Recurrent Expenditures	2,267	2,535	2,710	2,884	3,007	13,403

The Kenya Institute of Education

17.111. The Kenya Institute of Education was established in 1964 for the purpose of undertaking programmes of educational research, curriculum development and in-service teacher education. The Curriculum Development and Research Centre, established in 1966, forms an integral part of the Institute.

17.112. The work of the Institute includes the preparation of appropriate course materials for both students and teachers in all subjects taught below the University level. In-service courses are offered for teachers in language, mathematics, natural sciences, teaching methodology, social studies and other subjects with a view to improving teaching skills and up-grading unqualified teachers to qualified status.

17.113. Educational research is undertaken in a wide variety of areas which have potential relevance for curriculum development, teacher training and education administration. The purpose of this research is to obtain information which will provide a basis for evaluating education in terms of its relevance to Kenya's changing needs.

17.114. During the Plan period, the Institute envisages a need to undertake projects which will require a significant increase in its professional staff. In 1968/69, the professional staff of the Institute numbered approximately 50; in 1973/74, professional staff requirements may be two or three times as large.

RECURRENT AND DEVELOPMENT EXPENDITURES—KENYA INSTITUTE OF EDUCATION

Table 17.32 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Recurrent Expenditures ..	25	40	60	70	70	265
Development Expenditures ..	15	18	20	26	28	107

Institute of Adult Studies

17.115. The Institute of Adult Studies is discussed separately in the Development Plan because of the importance which Government views activities in this area. The fact remains that the recent rapid development which has taken place at all levels of the formal educational system has neither altered nor significantly improved the opportunities for employment and personal fulfilment for this economically strategic segment of the population.

The educational needs of adults are many and varied and the Institute cannot hope to meet them all. Nevertheless, the main tasks which the Institute has undertaken are ambitious by any standard. These include—

(*a*) courses for adults. A number of courses are now offered to adults on a residential, extramural or radio/correspondence basis. During the Plan period, the Institute will begin to offer business and technical courses;

(*b*) Civic/Cultural Education. Short courses, seminars, lectures and public meetings have been and will continue to be organized on subjects of national and cultural importance;

(*c*) service agency in Adult Education. The Institute provides assistance and advice for institutions and organizations involved with the education of adults;

(*d*) in collaboration with the Board of Adult Education, the number of research projects will increase during the Plan period. A one-year non-graduate course will be introduced followed by a one-year post-graduate course. The existing short courses will be continued.

17.116. In order to meet both the established and prospective demands which will be placed on the Institute, a substantial improvement in facilities is required. The level of both staffing and equipment will also require improvement. As a consequence, Government will support an expansion in the recurrent budget of the Institute as follows:—

PROJECTED RECURRENT EXPENDITURE
INSTITUTE OF ADULT STUDIES, 1969–1974

Table 17.33 ***K£'000***

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Teaching and Research.. ..	100	110	121	133	146	610
Correspondence Course Unit ..	49	54	59	65	70	297
TOTAL	149	164	180	198	216	907

Major Programmes in Initial Stages of Planning

17.117. There are at least two major projects in the initial stages of planning which may be executed during the Plan period. The first of these projects will involve the establishment of a local organization capable of developing and financing the publication of new course books and supplementary teaching aids for all secondary school subjects. The second project would involve the establishment of a Kenya College of Business Studies to conduct post-secondary full-time and part-time courses to meet the manpower needs of both the public and private sectors.

17.118. *Educational Publishing Trust Ltd.*—With respect to the first project, it is proposed that a private limited company be established which will be jointly owned by an agency of the Government and the East African Publishing House. This project will involve expenditures (largely recurrent) of approximately K£373,000 over the first years of its operation. Thereafter, it is expected that the limited company will become financially independent of such subsidies.

17.119. *Kenya Colleges of Business Studies.*—This project has not yet been prepared and, as a consequence, neither enrolments nor costs can be provided.

Education Administration, Planning and Institutional Reforms Administration

17.120. Kenya's educational services have been growing more rapidly than its associated educational administrative and supervisory services. As a consequence, the work load of many divisions and sections in the Ministry of Education has increased to an extent that their establishments can barely cope with routine tasks. During the Plan, priority will be given to strengthening the Inspectorate at both headquarters and in the provinces to ensure that this vital function operates more effectively than it has in the recent past. Further, the Planning and Development Unit of the Ministry requires improved staffing in the form of experts on educational facilities who will assist in preparing specifications for development projects and who will advise on the effective use of buildings and equipment. Finally, Government has established an audit unit in the Ministry of Education to provide for a more effective supervision of expenditures at educational institutions and to ensure that Government property is properly used and cared for. This unit will be expanded over the Plan period so that, by 1974, all schools will be adequately supervised.

Institutional Reforms

17.121. The Ministry of Education will introduce two major educational reforms over the period:—

(*a*) Beginning with the academic year 1970/71, all university students will have an opportunity to apply for loans to finance their education: bursaries will, as a general rule, no longer be provided at the University. The present system of bonding university students is under review and important changes will be made in the 1970/71 academic year.

(*b*) Government intends to formulate establishments for all educational institutions whereby each post will possess a salary scale and a minimum qualification for its occupant. The purpose of this reform is to provide for a more efficient allocation of teaching resources among educational institutions. Many teachers possess qualifications which would enable them to teach at higher levels than is possible in the post they are occupying, while other teachers occupy posts for which they are not qualified, when qualified teachers are available at lower levels. This reform will provide over-qualified teachers with an inducement to move into higher posts for which they are qualified.

RECURRENT EXPENDITURE
MINISTRY OF EDUCATION HEADQUARTERS

Table 17.34 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74
Recurrent Expenditures	1,052	1,105	1,160	1,218	1,279

The Allocation of Educational Resources—Summary

17.122. Kenya is a poor country and the resources available for education are, necessarily, extremely limited. At the same time, the demands placed upon these resources seem to be limitless. Parents demand primary education facilities for their children; communities demand maintenance for secondary schools; Form IV leavers demand access to higher education and there is a persistent demand to expand enrolments and augment facilities at the university level. The claims against Government's resources far exceed the resources which are available with the consequence that it is inevitable that all people will not be satisfied with the choices which Government has made for the Plan period.

17.123. There are several factors which have weighed heavily in Government's decision-making for the Plan period. These factors include the relative costs of education at various levels, the manpower requirements for sustained economic growth and the social priority assigned to the achievement of primary education.

17.124. The resources required to maintain one student at the University for one year will maintain either 130 children in primary school or more than 15 students in secondary school. Looked at in another way, the decision to send one student to the University will deprive 130 children of a Standard I education. The decision to send one student to secondary school will deprive more than eight children of a primary education.

17.125. Clearly, if costs were the only consideration, all resources should be allocated to the achievement of universal primary education. However, there are other considerations. The nation requires many thousands of persons with secondary technical and higher education, not only for development purposes, but also for the purpose of replacing expatriates who now occupy a large number of high and middle level jobs in the economy.

17.126. Post-primary education is, therefore, geared to provide sufficient numbers of individuals to fill the jobs which will be created by economic expansion and Kenyanization. Expansion in enrolments beyond recognized needs would carry with it social and economic costs which must, at least partially, be measured in terms of the number of children of primary school age who will receive no education at all.

17.127. Fortunately, most segments of post-primary education have expanded in an orderly fashion. During the Plan period, continuing rapid rates of expansion are programmed at the University and upper-secondary levels of the educational structure in order to meet projected manpower needs.

17.128. However, the growth of enrolments in lower secondary institutions are programmed for a lower rate of expansion than was experienced in the recent past. This curtailment is, at least in part, natural because high rates of growth cannot be sustained on a base enrolment which is now very large. Apart from the natural decline in this growth rate, Government recognizes that a rapid expansion in lower secondary school enrolments is no longer necessary. Already, there are Forms II and IV leavers who cannot find wage employment.

17.129. During the next Plan period, Government will take over an additional 195 Forms I, a substantial number, but a number which, nevertheless, represents a curtailed effort.

17.130. This does not mean that Government does not feel that some action is warranted to provide more Standard VII leavers with opportunities for further training. Government is now considering the feasibility of several schemes and action will be taken in this area early in the Plan period.

Finance

17.131. Development expenditure on education over the Plan period will total K£16.6 millions, more than 43 per cent of which will be spent on secondary education. Higher education will receive nearly 24 per cent, teacher training institutions nearly 20 per cent and technical education approximately 10 per cent.

The extremely large portion claimed by secondary education may be accounted for by—

(*a*) the high cost of taking over *Harambee* Form I streams;

(*b*) the need to provide for a large amount of housing;

(*c*) the introduction of a relatively massive programme to provide facilities for practical studies.

The details of this development programme are shown in Table 17.35.

17.132. The bulk of expenditure on teacher training relate to the expansion and consolidation programme for primary Teacher Training Colleges (*see* Tables 17.23 and 17.24). The largest portion of development expenditure programmed for the University are attributable to the construction of teaching and research facilities. Table 17.35 provides a summary of the total development expenditures which will occur on education over the Plan period.

Table 17.35

TOTAL DEVELOPMENT EXPENDITURE ON EDUCATION

K£'000

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Primary Education	—	15	15	15	15	60
Secondary Education	965	1,701	1,862	1,764	1,615	7,907
Secondary Technical Education	19	48	51	51	23	192
Secondary Vocational Education	79	177	256	177	99	788
Primary Teacher Training ..	—	600	800	700	500	2,600
Secondary Teacher Training ..	60	170	220	215	85	750
Kenya Polytechnic	85	130	140	72	45	472
University College	850	900	750	600	600	3,700
Institute of Education	15	18	20	26	28	107
TOTAL	2,073	3,759	4,114	3,620	3,010	16,576

17.133. The recurrent cost of providing an education service is Government's heaviest financial burden. Table 17.36 shows that these costs will rise from nearly K£22 millions in 1969/70 to more than K£30 millions in 1973/74. This represents an average annual compounded rate of growth of 9.0 per cent. Reflecting the priorities discussed above, expenditure on primary education will increase at an average rate of 9.9 per cent, secondary education at 8.2 per cent and the university at 7.3 per cent. University expenditure will be higher than indicated by this growth rate if expected declines in average student costs are not realized.

Table 17.36

PROJECTED RECURRENT EXPENDITURE FOR EDUCATION

K£'000

	1969/70	1970/71	1971/72	1972/73	1973/74
Primary Education	10,884	11,972	13,082	14,302	15,882
Secondary Education	4,359	4,778	5,183	5,587	5,980
Secondary Technical Education	160	174	197	217	237
Primary Teacher Training Colleges	589	665	695	810	830
Secondary Vocational Education	231	284	314	370	373
Secondary Teacher Training Colleges ..	562	592	587	584	602
Kenya Polytechnic	215	236	254	270	290
University of Kenya	2,267	2,535	2,710	2,884	3,007
Kenya Institute of Education	25	40	60	70	70
Institute of Adult Studies	149	164	180	198	216
Administration and General	1,052	1,105	1.160	1,218	1,279
Other	1,021	1,144	1,281	1,435	1,607
TOTAL	21,515	23,689	25,703	27,945	30,373

CHAPTER 18—HEALTH

Background to Health Planning

Earlier development plans have recognized that better health is not only a major objective of social and economic development, but also a significant contributor to that development through its impact on productivity. This recognition by the Government has been matched by a rising demand for better health services from the population, frequently accompanied by a willingness to contribute to providing them through self-help projects. The present plan reiterates the Government's commitment to accelerate the development of health services, and allocates increased Government capital and recurrent funds to this sector.

18.2. Health services have been provided by a number of agencies, including the Central Government, municipal and county councils, church organizations and private hospitals and practitioners. However, as outlined in Chapter 7, Government will, during 1970, transfer responsibility for health services from the county councils to the Ministry of Health. The Ministry of Health has been responsible for overall co-ordination and control of all health activities, but the broad range of agencies that has been involved is illustrated by the following table, based on an analysis of 1966/67 data:—

ESTIMATED RECURRENT EXPENDITURE ON HEALTH: 1966/67

Table 18.1

Agency	Services	K£ million	Per cent of Total
1. Ministry of Health	Hospitals and dispensaries; public health services; training	3·8	36·5
2. County Councils	Health centres and dispensaries; public health services	1·1	10·6
3. Municipal Councils	As for counties, plus maternity hospitals	1·2	11·5
4. Churches	Hospitals and dispensaries; training	0·4	3·9
5. Private Hospitals	Hospitals	1·2	11·5
6. Private Practitioners	G.P.s., consultancy services	1·2	11·5
7. Private Dentists	Dentistry	0·2	1·9
8. Commercial Pharmacies ..	Pharmaceutical supplies ..	1·3	12·6
	TOTAL	10·4	100·0

18.3. Nearly 60 per cent of the total was accounted for by central and local government, and the remainder by private activities. The importance of the private sector in the provision of health services emphasizes the need to bring about a closer supervision and integration of all health services by the Ministry of Health.

18.4. The demand for health services has been growing at an increasing rate in recent years. Meeting these needs, while at the same time trying to improve the scope and quality of health services, has meant a steady rise in the level of both recurrent and capital expenditure for public and private health agencies. From 1960/61 to 1968/69, recurrent expenditure by the Ministry of Health rose from K£2.6 million to K£4.6 million per year, an annual average increase of 7.4 per cent. Towards the end of this period the rate was moving up to 9 per cent per year. Development expenditures by the Ministry of Health rose from K£141,000 in 1963/64 to K£872,000 in 1967/68 for an average annual increase of 58 per cent*. Taking all Central Government expenditures on health together, spending *per capita* rose from 6.5 to 8.3 shillings a year over the same period.

18.5. Capital expenditure by municipalities for health services since independence has not exceeded K£500,000, of which some 80 per cent has occurred in Nairobi and most of the rest in Mombasa. Development expenditures by county councils are not available, but certainly cannot have been substantial.

Health Policy and Strategy

18.6. The objectives and priorities for health planning must take account of some fundamental factors: an average population growth rate exceeding 3 per cent per year, rapid expansion of urban centres at about 6 per cent a year, wide disparities in the distribution of health services, a severe shortage of medical manpower, varying degrees of efficiency in administration, and financial limitations. There are also difficult issues such as the relative emphasis to be placed on preventive as against curative services, the most effective use of skilled manpower, and the co-ordination of public and private health services. Health planning has thus far been handicapped by inadequate statistical information on the incidence of diseases and the impact of various health programmes, but this difficulty is being overcome through the work of the newly-established Epidemiological Section in the Ministry of Health, which is organizing the regular reporting and analysis of data from the hospitals and health centres. Armed with increasingly reliable information, health planning will continue on an intensive basis, and it is expected that a health planning unit will soon be established within the Ministry of Health. As a further assistance to planning how best to improve health services, the Government is presently considering the appointment of a Special Commission to examine present objectives, functions, structure, staffing and financing of the nation's health service and to make recommendations for their improvement.

* Authorized amounts were substantially higher, but underspending has unfortunately, been rising: 20 per cent in 1963/64, 27 per cent in 1964/65, 33 per cent in 1965/66 and 42 per cent in 1966/67 and 1967/68. Much of the underspending has been caused by delays in the design of health facilities.

18.7. Meanwhile, the Plan period will see no dramatic changes in the scope and execution of health services but rather a general improvement in the standard of services through more effective co-ordination and consolidation of existing units and a steady increase in facilities, especially in rural and pastoral areas of the country.

Basic policy elements for the Plan period are:—

(i) Construction of urgently-needed new facilities, to the extent they can be staffed.

(ii) A substantial programme of renovating and up-grading existing facilities.

(iii) Major investments in training at all levels of medical skills.

(iv) More emphasis on preventive and promotive programmes.

(v) The Central Government to take over county council health services.

(vi) Substantially increased assistance to church health services.

18.8. The development allocations required by these policies, with necessary regard to the funds that can be made available, are set out in Table 18.2.

DEVELOPMENT EXPENDITURE MINISTRY OF HEALTH

Table 18.2 — *K£*'000

	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Period
HOSPITALS—						
Kenyatta National Hospital extensions (Table 18.4) ..	951	800	800	800	800	4,151
New Hospitals (Table 18.4) ..	243	290	350	277	282	1,442
Hospital improvements and extensions (Table 18.4) ..	190	520	735	750	760	2,955
TOTAL	1,384	1,610	1,885	1,827	1,842	8,548
HEALTH CENTRES	60	70	75	80	90	375
STAFF HOUSING—						
Kenyatta National Hospital	90	105	105	65	55	420
New Hospitals	25	150	175	230	230	810
Existing Hospitals	125	250	400	440	460	1,675
TOTAL	240	505	680	735	745	2,905
Medical Training	510	570	200	170	150	1,600
Public Health	105	190	220	270	320	1,105
Grants-in-aid*	25	35	40	45	55	200
Research	30	—	—	—	—	30
TOTALS	2,354	2,980	3,100	3,127	3,202	14,763

*NOTE:—To selected church organizations, to assist with new facilities and improvements.

18.9. *Hospitals*: *In* 1967 the number of hospitals and beds was as follows:--

TABLE 18.3—HOSPITALS AND HOSPITAL BEDS, BY OPERATING AGENCY: 1967

Agency	*Hospitals*	*Beds*
Central Government*	74	8,076
Local Government†	2	153
Catholic Church Hospitals	58	2,461
Protestant Church Hospitals	33	1,554
Private Hospitals	26	1,075
Company Hospitals	6	296
	199	13,615

* Of which eight are prison hospitals, with 338 beds.

† One of these county council institutions, a maternity hospital with 92 beds, has since been transferred to the Central Government.

18.10. These hospitals vary considerably in size and facilities. There are only some 15 Grade I, including Kenyatta National Hospital and most provincial hospitals. There are about 75 Grade II, including most district hospitals and many church and private hospitals. About 85 hospitals are Grade III ("cottage hospitals" with no Resident Doctor), about equally distributed between the Government and private agencies. Finally, there are a few special hospitals for the care of mental, infectious and other specialized cases. It should be noted that of the total beds listed in Table 18.3, 63 per cent are general beds, 19 per cent maternal, and the remaining 18 per cent for mental or infectious cases.

18.11. Using an estimated mid-year population of 9.9 million, the overall bed/population ratio in 1967 was 1.37 beds per thousand, but the figure declines to 1.23 if beds in prison, company and private hospitals, which are available only to special groups, are omitted. The distribution of hospital beds varies widely: there is a heavy concentration in Nairobi and Mombasa (which also serve as referral centres), and a scarcity of beds in North-Eastern Province. If these two extremes are also excluded, then Nyanza Province is lowest on the scale with 0.79 beds per thousand population, while Coast Province is highest with 1.80; among districts, Isiolo is lowest with a ratio of 0.11, and Tana River highest with 2.96. There were 25 districts with a ratio below 1.0 and 14 with a ratio of 0.5 or below. Excluding Nairobi and Mombasa, there were 9,325 beds throughout Kenya, serving an estimated population of 9,235,000. This is a ratio of 0.99 beds per thousand population. However, since the Nairobi and Mombasa hospitals are major referral centres, they serve many patients from outside their own regions.

18.12. Considering the financial and manpower constraints, consolidation rather than expansion must be the keynote of the hospital programme. The priorities are: to provide the beds required for clinical teaching; to reduce the geographical imbalance in the distribution of hospital beds; to increase the average size of existing hospitals by adding beds; and to raise the standard of hospital care by improving domestic facilities and adding diagnostic and treatment facilities.

18.13. To reduce geographical imbalance, the criterion adopted is that the bed/population ratio should be raised to 0.8/1,000 in all districts by 1979. Staff limitations rule out a higher minimum during this period, and the achievement of even this modest target will require that, except in special circumstances, no additional beds can be contemplated in districts which have already reached this ratio.

18.14. In determining the magnitude of the Ministry's hospital construction programme over the Plan period, the inescapable constraint is the trained manpower which will become available to staff the hospitals. As more trained people become available, they will be brought into Government service, but it cannot be expected that the number of staffed hospital beds will rise in direct proportion for two reasons: there is severe under-staffing at present, so that some of the newly-qualified staff will be absorbed in higher staffing ratios, and additional staff will be required at Kenyatta National Hospital to attain the standards of a teaching hospital. Allowing for these factors, it is estimated that during the Plan period it will be possible to add 600 beds at Kenyatta National Hospital and 1,320 at new and existing hospitals. Table 18.4 summarizes the hospital development programme, including new hospitals, extensions involving additional beds at existing hospitals, and improvements at existing hospitals.

18.15. The only other substantial amount of hospital construction likely to be undertaken is by the church organizations, perhaps to the extent of 150 beds per year over the Plan period.

18.16. Altogether, there will be approximately 16,000 hospital beds in 1974 which, with an estimated population of 12.1 millions, will imply 1.32 beds per thousand population. This is slightly lower than the present figure of 1.37 but the improved distribution of beds between areas and between agencies will permit a generally higher level of service and thus should more than compensate for the slightly lower overall ratio.

18.17. Policy concerning the church hospitals deserves special mention. There are 91 such hospitals, mostly Grade II, which have 29.5 per cent of all hospital beds and account for some 5 per cent of all recurrent expenditure on health (Tables 18.1 and 18.3). These institutions serve substantial numbers of out-patients, and frequently maintain associated clinics to widen their service areas. Altogether, church operations in this field have long been of major importance in helping to meet health service needs, particularly in the out-

Table 18.4

DEVELOPMENT PROGRAMME FOR GOVERNMENT HOSPITALS:

A. New Hospitals

District/Hospital	Beds when Completed	Beds by 1974	Cost during Plan period K£'000
Busia/Busia	200	100	240
Nyandarua/Ol Kalou	200	100	190
Siaya/Siaya	200	100	190
Kisii/Keroka	200	100	190
Garissa/Garissa	100	100	252
Machakos/Makueni	200	100	190
S. Nyanza/Migori	200	100	190
TOTALS	1,300	700	1,442

B. Existing Hospitals—Beds and Improvements

District/Hospital	Additional beds	Cost of Extensions K£'000		Cost during Plan period K£'000
		Beds only	Beds and improvements	
Nairobi/Mathari	250	—	670	670
Machakos/Machakos	100	—	330	330
Marsabit/Marsabit	54	66	—	66
Mandera/Mandera	54	66	—	66
Kisii/Kisii	54	—	165	165
Turkana/Lodwar	54	—	100	100
Bungoma/Bungoma	54	—	75	75
SUB-TOTALS	620	132	1,340	1,472
Nairobi/Kenyatta National ..	600	—	4,151	4,151
TOTALS	1,220	132	5,491	5,623

C. Existing Hospitals—Improvements Only

Province	Hospitals involved	Cost for Plan period K£'000
Central	4	219
Coast	10	318
Nyanza	2	66
Rift Valley	14	456
Eastern	5	220
Western	2	79
Sub-Totals, costed projects	37	1,358
Projects not yet costed (est.)	—	125
TOTALS	37	1,483
GRAND TOTAL	—	8,548

lying areas where the Government has not yet been able to develop the necessary hospital and clinic infrastructure. Although there are still many areas where such services are entirely lacking or seriously inadequate, it is a matter of high priority that the existing church facilities continue to operate, and even raise their service standards. Thus the Government is deeply concerned to note that in recent years the church hospitals have experienced increasingly severe financial problems, causing a lowering of service standards and almost a complete halt on capital extensions and maintenance, other than what could be financed by modest Government assistance grants. Very recently the situation has become critical for nearly 20 hospitals, which have announced that they will soon be forced to close down, and others have indicated they may have to do the same before long.

18.18. The principal cause for these financial difficulties has been the gradual reduction in support from the overseas church organizations, but rising costs of operation have compounded the problem. In attempting to compensate for these factors, the hospitals have steadily increased their schedules of charges, but the added revenue has not been sufficient. In many areas, in fact, charges are now so high in relation to the average ability to pay that a significant proportion of the local people have been cut off from the services. This has created an inequitable situation in comparison with that of people who happen to live near a Government hospital where many services are free to out-patients and all carry low charges generally.

18.19. Present measures to assist the church hospitals—K£200,000 in capital grants and about K£350,000 in recurrent cost assistance over the Plan period —are not adequate to meet the critical situation confronting these hospitals. Recognizing this, and following full discussions with the Churches, the Government is presently considering a proposal for a new grant formula for the church hospitals. Under this plan, the facilities and services would be brought up to Government standard as rapidly as possible. It is estimated that the programme would add some K£1.5 million to annual recurrent costs, and that about K£0.4 million annually would be required for several years to rehabilitate and extend facilities as necessary.

18.20. *Health Centres and Dispensaries.*—These are the key elements in health services for non-urban areas, which contain over 90 per cent of the population. Health centres provide an integrated programme of basic curative, preventive and promotive health services, not only at the centres but also in homes and schools, while remote communities are served by mobile units operating from the health centres. The health centres usually have a few maternity beds and some beds for emergency and transit cases. Other health centre activities are control of communicable diseases, environmental sanitation, health education (including family planning education in about one centre out of six) and statistical records. The staff for a health centre should include a medical assistant, enrolled nurse, enrolled midwife, enrolled health visitor and health assistant, but many are operating below this complement.

18.21. Dispensaries are small clinics, sometimes in the form of a mobile unit, which provide regular basic curative services to out-patients. Personnel may vary from registered nurses to ungraded dressers. Preventive work or in-patient care is not undertaken, although some dispensaries have a few beds for emergency or transit cases.

18.22. It is estimated that there are now some 200 health centres and 350 dispensaries functioning outside the municipalities. Most of these (about 180 health centres and 300 dispensaries) are under the county councils; the rest are run by self-help groups. Table 18.5 summarizes the latest detailed information available (July 1968) by provinces and districts.

18.23. It is evident from Table 18.5 that the self-help groups are now deeply involved in building a large number of health facilities, in fact some 80-90 per cent of all units under construction. In 27 of the 37 districts, self-help groups were promoting 115 health centres and 118 dispensaries, most of which were started with no assurance that needs for staff, equipment or recurrent costs could be met. A good many have since been completed but cannot be operated. Newly-established procedures for clearing all self-help projects through the District Development Committees (which include local health officers) should sharply reduce this problem in future.

18.24. In the municipalities there are 13 fully staffed health centres: Nairobi has 6, Mombasa 4, and Kisumu, Eldoret and Nakuru one each.

18.25. The Government's long-term objective is to have one health centre for every 20,000 people, but the present ratio varies from 1:100,000 to 1:50,000, with an average of about 1:65,000. This is far short of the objective and also indicates the highly uneven distribution of these facilities. The standard of service throughout the country is not improving because of shortages of qualified para-medical staff, inadequate supervision, lack of adequate financial support from local authorities, and the rapidly increasing work load at existing centres.

18.26. In this Plan period, the health centre system will continue as the major source of medical and health services, particularly in the rural areas, but it will be transferred from the county councils to the Ministry of Health as rapidly as administrative circumstances permit. The main objective will continue to be the creation of an adequate network of centres to co-ordinate with hospital services and specialized programmes such as disease control and eradication. The long-term target of one centre for every 20,000 people cannot be reached even during the next ten years because the output of trained personnel will not be sufficient to staff the number of centres required. The Ministry of Health will only establish new health centres which can be properly equipped and staffed during this Plan period, since anything less cannot provide an acceptable level of service and is therefore wasteful. This means that no more than five new health centres—costing an average of K£15,000 each—can be installed in rural locations each year: these will be approved by the Ministry for the highest priority areas. Development funds

HEALTH CENTRES AND DISPENSARIES, JULY 1968

Table 18.5 *Numbers*

	Health Centres						Dispensaries					
	Functioning			Under Construction			Functioning			Under Construction		
	CC	SH	TOT	CC	SH	TOT	CC	SH	TOT	CC	SH	TOT
1. Kilifi	4	1	5	—	—	—	22	—	22	—	4	4
2. Kwale	2	—	2	—	—	—	13	—	13	—	—	—
3. Tana River	1	—	1	1	—	1	7	—	7	—	—	—
4. Lamu	1	—	1	1	—	1	2	—	2	1	3	4
5. Taita/Taveta	1	—	1	—	2	2	7	10	17	—	5	5
COAST PROVINCE	9	1	10	2	2	4	51	10	61	1	12	13
6. Nyeri	6	—	6	2	3	5	7	—	7	—	4	4
7. Fort-Hall..	5	—	5	—	2	2	13	—	13	—	30	30
8. Kirinyaga	3	—	3	—	—	—	11	2	13	—	6	6
9. Nyandarua	4	—	4	2	1	3	—	—	—	—	—	—
10. Kiambu	12	1	13	—	3	3	6	3	9	—	—	—
CENTRAL PROVINCE	30	1	31	4	9	13	37	5	42	—	40	40
11. Machakos	7	1	8	—	16	16	20	7	27	—	4	4
12. Kitui	4	—	4	—	15	15	15	—	15	—	—	—
13. Embu	2	—	2	—	3	3	15	2	17	—	2	2
14. Isiolo	1	—	1	—	—	—	1	—	1	—	—	—
15. Marsabit	—	—	—	—	—	—	—	—	—	—	—	—
16. Meru	7	1	8	—	18	18	15	—	15	—	2	2
EASTERN PROVINCE	21	2	23	—	52	52	66	9	75	—	8	8
17. Central Rift	12	—	12	2	1	3	19	4	23	10	13	23
18. Turkana	—	—	—	—	—	—	1	4	5	—	1	1
19. Samburu	2	—	2	—	1	1	—	1	1	—	1	1
20. Kajiado	5	—	5	2	—	2	7	—	7	4	—	4
21. Narok	6	—	6	—	—	—	7	—	7	—	2	2
22. Laikipia	2	—	2	—	—	—	—	—	—	—	—	—
23. Kericho	3	—	3	1	4	5	12	10	22	1	5	6
24. Nandi	3	—	3	—	2	2	7	—	7	—	1	1
25. Elgeyo Marakwet ..	5	—	5	—	—	—	3	—	3	—	1	1
26. West Pokot	3	—	3	—	1	1	2	—	2	—	—	—
27. Uasin Gishu	3	—	3	—	—	—	—	—	—	—	—	—
28. Trans Nzoia	3	—	3	—	—	—	—	—	—	—	—	—
RIFT VALLEY PROVINCE ..	47	—	47	5	9	14	58	19	77	15	24	39
29. Kisumu/Siaya	8	—	8	1	8	9	18	—	18	—	4	4
30. Kisii	6	3	9	1	7	8	8	6	14	—	19	19
31. South Nyanza	13	—	13	—	8	8	15	—	15	—	—	—
NYANZA PROVINCE	27	3	30	2	23	25	41	6	47	—	23	23
32. Kakamega	12	—	12	—	12	12	3	—	3	—	—	—
33. Bungoma	6	2	8	—	2	2	3	1	4	—	7	7
34. Busia	4	—	4	—	5	5	3	—	3	—	2	2
WESTERN PROVINCE	22	2	24	—	19	19	9	1	10	—	9	9
35. Wajir	—	—	—	4	—	4	4	—	4	—	2	2
36. Garissa	—	—	—	4	—	4	4	—	4	—	—	—
37. Mandera	—	—	—	3	—	3	2	—	2	—	—	—
NORTH EASTERN PROVINCE..	—	—	—	11	—	11	10	—	10	—	2	2
GRAND TOTAL	156	9	165	24	114	138	272	50	322	16	118	134

NOTES.—1. CC=County Councils, SH=Self Help groups.
2. Church, private and Government units are not included.
3. Central Rift consists of Nakuru and Baringo. Kisumu and Siaya Districts are combined.
4. Nairobi and Mombasa Districts, and municipal areas, are excluded.

amounting to K£375,000 have been allotted for this purpose for the Plan period. Other aspects of the programme will focus on the up-grading of existing units, now below the standards for a proper health centre, and on control of health centre and dispensary construction by self-help action. Development grants for self-help projects will come from the Ministry's public health budget, described below.

18.27. *Training*.—Shortages of skilled medical personnel at all levels are the major limitations on the expansion of health services. For example, in late 1968 there were only 762 doctors in active practice in Kenya, including some 70 interns. An additional 30 doctors are engaged in research and administration. Of the 762 in active practice, 266 are in Government service, 33 with the Nairobi City Council, 60 with missions, six with companies and 397 in private practice. Almost all the private practitioners are in the larger urban centres. Of the doctors in public service, about 100 are at Government hospitals in Nairobi, 33 in Nairobi's Health Department, 30 at Government posts in Mombasa, Nakuru and Kisumu, and the remaining 136 in the rest of Kenya as medical officers. The latter spent 90 per cent of their time as physicians in hospitals, health centres and public health work, and the other 10 per cent on general administration of health services. The active doctor/population ratio for all of Kenya is about 1:13,000 but in the larger urban areas it averages 1:1,500 as compared with about 1:40,000 for most of the rural population. The net addition to the doctor group during the Plan period, some 190, will only slightly improve the national ratio and will still leave large needs for doctors outside the urban centres. In fact, the demand for all levels of trained medical personnel is so great that the maximum attainable training programme still cannot meet it. Therefore, vigorous efforts will be made to obtain the additional medical and paramedical skills required through bilateral and international aid.

18.28. The demand-supply situation for some key medical and paramedical manpower is suggested by the data given in Table 18.6.

Key Medical and Paramedical Manpower: Requirements and Supply

Table 18.6

Medical or Paramedical Skill	Present Number 1968	Requirements (*a*)	Supply (*b*)	Shortage
Doctors	762	561	390 (*c*)	171
Clinical and Medical Assistants	600	n.a.	180	n.a.
Nurses	1,970 (*d*)	n.a.	1,781	n.a.
Midwives	78	n.a.	750	n.a.
Pharmacists (Univ. degree) ..	n.a.	51	51	—
Dentists	62	50	10	40
Health Inspectors	137	200	160	40

Notes—

(*a*) Public and private sector combined. Where requirements are not shown, it is nevertheless certain that they are far larger than the supply to become available during the period.

(*b*) Expected output from training programmes (excluding church and private hospitals), with allowance for attrition (Table 18.7).

(*c*) Includes an estimated 100 doctors returning from overseas medical schools during Plan period.

(*d*) Includes 500 trainees of whom 173 are Health Assistants.

18.29. In addition to the output for the categories indicated in Table 18.6, it is expected that during the Plan period the following manpower will become available: 40 anaesthetist assistants, 90 health assistants, 162 laboratory technicians and assistants, 18 microscopists, 40 radiographers, 50 darkroom assistants, 76 pharmaceutical assistants, 46 physiotherapists, 24 occupational therapists, 210 health visitors, 32 dental technicians and assistants, and 90 food inspectors.

18.30. Because of the crucial importance of the manpower shortage, the medical training programme has very high priority for this Plan period, aiming at four major objectives; (i) expansion in the stock of trained medical and paramedical manpower; (ii) improvement of service standards; (iii) increased emphasis on training for the rural health services; and (iv) widening of the range of courses to include some not previously available in Kenya.

18.31. In deciding on the priorities and balance of the programme the Government has taken account of training carried on by private and church hospitals, as well as the present and future demands for trained staff from other employers, among whom are the local authorities, missions, industrial health services and the private sector. The full benefits of the training programme will not be felt until succeeding plan periods, but the success of the present health plan, and of subsequent plans as well, hinges on a sharp increase in the output of the many medical skills required. During the Plan period, the medical school at University College, Nairobi, will produce its first graduates and expand its intake to the planned capacity of 105 students per year; there will be a vigorous expansion of paramedical training at the Medical Training Centre, Nairobi; a new training school for medical assistants will be opened at Nakuru; and the training of hospital and community nurses at the enrolled level will be greatly extended at several training centres.

18.32. Total development costs for training are K£1.6 million for the Plan period: at the Medical Training Centre, accommodation for an additional 650 students is urgently required, together with classrooms, laboratories and other facilities, for a cost of K£600,000; the Medical Assistants Training School, with accommodation for 270 students, is expected to cost approximately K£350,000; and accommodation will be required for an additional 800 enrolled nurses at various centres for a cost of K£650,000.

18.33. *Staff Housing.*—A secondary but significant constraint on the provision of adequate health services on a broad geographical basis has been and continues to be a shortage of housing for medical staff. Even in urban centres the private housing market cannot be relied upon to produce housing in the appropriate cost bracket and location, since many hospital staff must be close to their work. In outlying areas, no suitable housing would be available unless deliberately undertaken by the Government as part of the health services programme.

18.34. Housing requirements have been estimated on the basis of staff needs for the new hospitals and hospital extensions programmes. In addition to the housing needed to accompany the new facilities, there are large backlog requirements for existing hospitals. Staff housing for the Plan period, even if held to the most restricted scale possible without seriously handicapping the provision of health services, will call for an expenditure of K£2.9 million distributed as follows:

	K£
Housing for Kenyatta National Hospital expansion ...	420,000
Housing for new hospitals	810,000
Housing for existing hospitals	1,675,000
Total	2,905,000

18.35. *Public Health.*—The basic objective for improving public health services during the Plan period is to continue the expansion of the network of basic health services throughout the country. The curative, preventive and promotive services provided by the existing hospitals, health centres, sub-centres, clinics and mobile units furnish the foundation for such an expansion. Basic services include medical treatment, environmental sanitation, control of communicable diseases, maternal and child health, and education in health, nutrition and family planning. Most of these services will be improved through higher levels of recurrent expenditure, but some facilities will be installed.

18.36. During the Plan period, the expenditure of some K£1.1 million is programmed for public health facilities, primarily in the fields of environmental sanitation, mobile health units, structures for field staff and medical supplies storage.

18.37. *Environmental Sanitation.*—Through its Environmental Sanitation Section, the Ministry will continue to emphasize the installation and improvement of such things as water supply schemes, sewage and refuse disposal, food inspection, and health aspects of housing and town planning. Over K£800,000 of Government funds will be directed to rural schools, health units and places of public gatherings for small-scale water supplies, disposal of wastes, school sanitation, inspection of meat and other foods, health education, research on methods of improving environmental sanitation, and training of future sanitation staff. In addition to Government funds for this programme, it is expected that about K£95,000 will be contributed by UNICEF. Major stress will be on improving and installing simple basic facilities, rather than sophisticated and expensive schemes. The Ministry of Health will work in close liaison with other Ministries; such as Agriculture (Water Development), Social Services, Education and Local Government, and will be concerned with making the people aware of their needs in this field.

18.38. *Control of Communicable and Insect-Borne Diseases.*—Activities of the present Divisions of Health Education and Insect-Borne Diseases will be increased. at higher quality levels, and will be supported by improvement of environmental sanitation, including food hygiene. Other preventive measures will be studied in various health fields, including mental health, malnutrition, water pollution, and local problems of dental health.

18.39. Since the availability of up-to-date information is the key need in controlling and eradicating communicable diseases, basic research and improved reporting will be encouraged. Simultaneously, available knowledge and information will be applied to intensify the existing control programmes and begin new ones.

18.40. *Maternal and Child Health Care and Family Planning Services.*—The health of mothers and children is of vital importance for the nation's future. Thus the Government will continue to strengthen and develop maternal and child health services aimed at reducing the hazards to life and health associated with the process of reproduction for the mother and development of the child. This broad objective is being approached through specific programmes for reducing maternal and infant mortality, including education and assistance for the spacing of children, so that the mother's health is not undermined, the children have a proper opportunity for nutrition and education, and family welfare steadily improves. Increasing the level of these services over the Plan period will involve additional recurrent costs, but only minor development expenditures.

18.41. Family planning services formally began in Kenya in 1957, through private efforts, with the formation of the Family Planning Association of Kenya (FPAK) and its establishment of several clinics. In 1962 the FPAK affiliated with the International Planned Parenthood Foundation (IPPF) and is largely financed by that organization. By mid-1965, there were 21 clinics offering family planning assistance, 14 being located in Nairobi.

18.42. After careful consideration of a report prepared in 1965, the Government decided early in 1966 that it would ". . . pursue vigorously policies designed to reduce the rate of population growth through voluntary means . . .", and authorized a programme to be undertaken in co-operation with the FPAK. The programme was launched in 1967. Policy, supervision, and co-ordination are the responsibility of the Ministry of Health and the basic aim is to make family planning information, education and services available, on request, through free clinics in all Government hospitals and health centres. The programme specifically includes offering assistance to couples with infertility problems. It was agreed at the outset that the Government would provide about 25 per cent of the programme costs, the remainder being shared among domestic and overseas organizations interested in assisting. The programme began to develop significant momentum in early 1968 on an annual budget of K£67,000, most of which was for recurrent costs. Necessary equipment and supplies were largely provided by external grants and donations. By mid-1969, there were 160 locations offering family planning education and services: 110 Government and 30 Nairobi City centres, 10 clinics operated by the FPAK and the IPPF, and 10 church centres, operating in almost every Government hospital and in 30 Government health centres. Doctors visit these centres regularly and carry on staff training. To reach outlying populations, the IPPF sponsors seven mobile units, each with a doctor and staff, to serve some 35 more remote health centres with assistance for family planning and maternal-child health services, including training of local staff and public education in maternal and child health. Another mobile unit will go into service in 1970. IPPF also finances and supervises a training centre at Kenyatta National Hospital, which offers short courses in family planning motivations and techniques, open to clinical and medical assistants, enrolled nurses and midwives from East African countries. The centre has a capacity for 360 enrolments per year: thus far there have been 200 enrolments by Nairobi City staff and 200 nurses from mission and Government hospitals and health centres.

18.43. Statistics are now beginning to be collected regularly on the programme by the Ministry of Health and show that progress is being made. The number of "first visits" had climbed to 1,800 a month by December 1968, with over 90 per cent of these becoming "initial acceptors". By mid-1969, the number of first visits had reached 2,100 a month, with revisits at 4,800. If these trends continue, the respective figures should be about 3,000 and 8,000 by the end of 1969.

18.44. For the Plan period, the present number of 130 family planning clinics (excluding Nairobi) will be doubled, covering the few Government hospitals which do not yet have one and the majority of the health centres. It is contemplated that all clinics will operate on the present schedule of one half-day per week, but this could readily be stepped up at specific locations as necessary. The expanded clinic system will provide convenient access to family planning education and services for most of the adult population and will enable the volume of acceptors to expand rapidly.

18.45. All District Medical Officers will have taken a short training course over the next 18 months. They will then supervise the family planning clinics and assist in the training of midwives, nurses and medical assistants. The small group of expatriate doctors which has helped develop the programme at many locations throughout the country will be gradually withdrawn as the Government doctors take over. The existing corps (part-time on family planning) of 250 midwives and nurses and 50 field workers will be expanded to about 540 and 160 respectively, in phase with the establishment of the additional clinics. Training for these staff people can be carried out at the existing IPPF centre at Kenyatta National Hospital, though there is a possibility that a new Government training centre will be decided upon later in the Plan period; this facility would also house a model clinic and necessary office space for the programme planning, statistics and evaluation unit. Almost all the costs over the period, however, will be recurrent, rising from the present K£70,000 annual level to some K£150,000. The Government would continue to assume about 25 per cent of these costs, while the balance, plus equipment and supplies, would be furnished by donor agencies.

18.46. *Nutrition.*—The medico-socio-economic significance of poor nutrition for the pre-school child, older children and the general population has long been recognized by the Government. Malnutrition in infancy and childhood constitutes a major public health problem which undermines both physical and mental development and thus seriously harms the nation's human resources. Consideration is being given to the creation of a National Nutrition Council, which would advise on and help to co-ordinate appropriate policies and programmes in agriculture, health, education and other fields, so that a massive and co-ordinated attack could be directed against malnutrition by Government and voluntary agencies. The present nutrition programme under the direction of the Ministry's Nutrition Department includes research, advisory services, nutrition education, supplementary feeding programmes, and training for nutrition work. Considerable help is received from UNICEF, WHO and Oxfam in these fields.

18.47. The only development expenditures directly related to these programmes are for food warehouses in Mombasa, Nairobi, Embu, Nyeri, Nakuru, Kisumu, Kakamega and in North-Eastern Province. Some assistance is expected from UN agencies and Oxfam, supplemented by modest Government funds.

18.48. *Health Education and Health Information.*—These activities are organized and carried on by the Division of Health Education and Health Information. They will continue to be expanded to cover as much of the country as resources will permit. The main objectives are to get the people to realize that health is a community asset essential to economic growth and social progress, to motivate them to make efforts to contribute to improving their own health, and to get their co-operation and participation in public health programmes. During the Plan period, emphasis will be placed on activities relating to control measures, sanitation, research to guide education programmes and training.

18.49. The only development expenditure is for constructon of a new Health Education Unit in Nairobi costing about K£25,000, to be started in 1970/71.

18.50. *Research.*—Research is recognized as an essential component of day-to-day medical and health activities. No development programme can be successful without the guidance which can only come from a competent, intensive and continuing research effort. The Government therefore undertakes to encourage and support basic and applied research, both of which are necessary for guiding programmes in communicable diseases, environmental sanitation, nutrition, health education, and family planning education.

18.51. Close co-operation will continue to be maintained with the governments of Tanzania and Uganda through the East African Community and and with other agencies within and without East Africa.

18.52. The development commitment for research in the Plan period is the provision of K£30,000 for construction of a laboratory for vaccine research and production. Proposed research grants and the setting up of the operations research unit will figure only in the recurrent expenditure.

Development Expenditures Summary

18.53. The capital facilities programmed at all levels, public and private, during the Plan period come to some K£17.3 million, as shown in Table 18.7. Over 85 per cent of this development expenditure will be for Ministry of Health projects and programmes, about 5 per cent will be by local authorities (primarily the municipalities), and the remaining 10 per cent will be by the private sector. The modest amounts now spent by county councils will become part of the Ministry's own development budget, as a result of the decision to centralize health services.

Recurrent Costs During the Plan Period

18.54. Until recently, recurrent expenditure by the Ministry of Health was rising by only 5-7 per cent per year, but a higher rate of increase is necessary if health services are to expand at a more acceptable pace and county council services added to the normal programme. Accordingly, an increase has been projected for the Plan period, resulting in expenditures of nearly K£7 million in 1969/70, rising to over K£9 million in 1973/74, for a total of K£37 million over the Plan period. The two categories which take up the bulk of recurrent expenditure are salaries and wages (3/5ths) and medical stores (1/5th); the rest is for institutional upkeep, transport, grants-in-aid and miscellaneous. Most recurrent expenditure is for service activities; the level will not be substantially affected by planned additions to capital facilities. Over the Plan period, while K£14.8 million is projected for development by Central Government, annual recurrent costs are expected to increase by K£5 million, yielding an incremental capital/recurrent ratio of 3:1. Thus for each K£3 spent on capital, slightly over K£1 is added to annual recurrent costs.

18.55. The figures projected above for the Plan period are for gross recurrent expenditure, i.e., before deducting income from fees, charges, sales and miscellaneous revenues of the Ministry. These amounted to some K£720,000 in 1968/69. However, they have been growing rather slowly, and are projected to increase at only 2.5 per cent per year over the Plan period. Thus, unless fees and charges were raised—and there is no intention of so doing—revenues will drop from 15 per cent of gross recurrent cost in 1968/69 to only 11 per cent in 1973/74.

DEVELOPMENT EXPENDITURES ON HEALTH

Table 18.7

K£'000

	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Period
A. PUBLIC SECTOR Central Government	1,191	2,354	2,980	3,100	3,127	3,202	14,763
Local Authorities (a)	341	271	170	143	153	144	881
Public Sector Totals	1,532	2,625	3,150	3,243	3,280	3,346	15,644
B. PRIVATE SECTOR (b)	300	300	300	325	350	350	1,625
Totals, Public and Private	1,832	2,925	3,450	3,568	3,630	3,696	17,269

(*a*) Planned programme, plus additional estimates. County Council expenditure will become part of the Development Budget of the Ministry of Health.

(*b*) Estimated.

CHAPTER 19—HOUSING

The Importance of Housing

The extent to which the needs for shelter are met in any society is a significant measure of economic and social progress. Individuals and families give high priority to their housing requirements and, except at the highest income levels, allocate from a quarter to a half of their consumption expenditures to shelter. Decent housing within the reach of each income class is recognized by the Government as a major contribution to family and community health, and to the morale of the working population. It leads to higher productivity of labour and to reduced costs of public health, with consequent important gains for the nation's economic performance.

19.2. In addition to being a major element in living standards and the general welfare, housing accounts for a significant share of capital formation, and thus contributes importantly to national output and employment. Housing construction in the monetary sector—excluding the substantial volume of traditional, self-built dwellings, largely in the rural areas—has risen from K£2.0 to K£6.7 million a year during 1964-68 (in current prices), accounting for about four to seven per cent of gross fixed capital formation. If the estimated value of traditional type housing in the non-monetary sector is included, housing represented about 14 to 16 per cent of gross capital formation.

19.3. Housing construction creates large amounts of direct employment (currently some 12,000 man-years) because its labour content is relatively high. On average, each K£1 million spent on modern housing in Kenya means one year's full-time employment for 2,000 men, of whom some 500 are skilled and 1,500 are unskilled workers. The ability of housing activity to absorb large numbers of unskilled workers is especially important, since so many of the men entering the labour force each year have no particular vocational skills. It is estimated that the total expenditure on housing, in both the private and public sectors, will be about K£9 million in 1969/70, rising to some K£14 million in 1973/74 (Table 19.5). The total direct employment involved during the Plan period will be about 116,000 man-years, rising from 18,000 to 28,000 men per year.

19.4. In addition to this direct employment, there will be substantial employment created indirectly in associated activities and industries, such as timber, stone, cement, wallboard, other building materials and supplies, and home furnishings and appliances, and in the transport and commercial functions for these products and services. Finally, there are important employment effects in the construction of the infrastructure usually essential to new housing: streets and roads; water, sewerage and electrical services; shopping centres; and schools and churches.

Recent Performance in Housing

19.5. In the five years since Independence, the role of Government in housing has been to encourage the private sector to play an increasing part in building more houses, and in assisting local authorities, through the National Housing Corporation and its predecessor, to enlarge their public housing programmes. The establishment of the Ministry of Housing as a separate Department of State has helped to provide the leadership needed at the national level for the formulation of a new and more progressive national policy on housing and for the co-ordination of the efforts of all concerned with public housing. The greatest priority has been on providing more housing in the towns because of the high rate of urban population increase. Since Independence, the public sector has produced or helped produce some 9,500 homes and sites, or an average of 1,900 per year. In view of the limited funds obtainable from the development budget annually, the building programme during this period has not been able to catch up with the demand and the problems of over-crowding and uncontrolled settlements in urban areas, resulting from the migrations of rural peoples into the main towns and from the natural growth of population, have continued to cause much concern to the Government. Almost all new home construction has been in Nairobi and other urban areas, and must therefore be viewed against an estimated demand for urban housing rising from 7,000 to 10,000 dwelling units a year over the same period. Furthermore, the bulk of the houses completed thus far—due to technical and organizational barriers to low-cost construction—has been for incomes in the middle range, yet nearly 70 per cent of the demand for urban housing is by the lowest income groups. On the positive side, the replacement of the former Central Housing Board by the National Housing Corporation and the recruitment of more technical and professional staff by this agency have helped local authorities to expand their housing programmes and to carry out schemes more quickly than hitherto.

19.6. Residential construction by the private sector, while increasing considerably since Independence, has not produced a large number of dwelling units. To stimulate the private sector, the Government established the Housing Finance Company of Kenya Limited at the beginning of 1966, with the objective of making loan funds available to people wishing to acquire their own homes in the main urban centres. In 1963, the number of completed buildings was reported as 86, for a cost of K£0.45 million, while by 1968 completions had risen to 238 for a cost of K£1.55 million. The six-year period witnessed only 852 reported completions, with total investment of K£4.65 million, financed almost exclusively by private sources of credit. The total number of dwelling units is not known, since some of the buldings were for flats, but assuming an average cost of K£3,000 the total could not have exceeded some 1,500 units, or an average of only 250 a year. In any case, private sector activity has catered almost entirely to the higher income market; most architects and builders have not yet shown interest in projects for which dwelling units cost under K£3-4,000.

19.7. The shortfall of up to 7,500 urban dwelling units a year has been met by individual families themselves, who have squatted on public and private land and built whatever poor form of shelter was within their means, usually fashioned of mud, wattle, cardboard and tin. Where even this was not possible, they have doubled up or tripled up with other families. There are no comprehensive data to give an accurate picture of the social and health conditions resulting from these developments. However, a partial survey in 1962 showed that in Nairobi some 100,000 persons were living in only 28,387 rooms, and two households out of every three had an occupancy ratio of four or more persons per room. Over-crowding is now even more severe, causing serious health hazards and discomforts. Not only is this unfortunate for those involved, but it creates social problems which affect the social and economic environment of the entire urban population. There is an imperative need to accelerate the creation of inexpensive urban housing for the low income groups, to provide them with shelter of an acceptable standard at a monthly cost within their means. The Government's basic housing policies and programmes are directed to that objective.

19.8. The housing demand in rural areas is estimated at up to 50,000 homes annually: almost all this demand is for traditional-type shelter by the lower-income rural population, and has therefore been met in the traditional way by using family labour and local materials. During the past year the Government has initiated a programme of assisting rural people to improve the design and construction of traditional dwellings, and Provincial Housing Officers are being employed to help in collaboration with other Government staff in the field. A new rural housing policy has been defined and those who want and can afford to take up loans to build or improve their own housing in these areas may now apply to the National Housing Corporation.

Housing Demand

19.9. In addition to the usual market determinants, the demand for housing in Kenya is affected by several special conditions—

(i) the total population is increasing at a rate of over 3 per cent a year, while the growth in urban areas is nearly double that rate;

(ii) the shortage of housing is large, with consequent serious over-crowding and numerous squatter settlements; and

(iii) the pattern of income distribution is such that most families find conventional or near-conventional housing far beyond their reach.

It is estimated that in the rural areas 94 per cent of those with any wage income earn less than K£240 a year; in the urban areas the proportion under that level is about 70 per cent. On the basis of this income distribution, effective demand for housing in urban areas is close to 10,000 units a year. This is shown in Table 19.1, on the assumption that on the average families can afford a home costing up to about 2½ times their annual income, or can pay a rental of about 25 per cent of their monthly income.

EFFECTIVE DEMAND FOR HOUSING IN URBAN AREAS IN 1968, BY INCOME LEVEL, HOUSE COST AND MONTHLY RENTAL OR PAYMENT

Table 19.1

Annual Income (Head of household) K£	Affordable House Cost K£	Affordable Rent or Payment Sh. per month	EFFECTIVE DEMAND*		
			No. of Units	Per cent of total	Per cent Cumulative
Up to 119	Up to 300	Up to 50	3,500	35	35
120—179 ..	450	75	2,100	21	56
180—239 ..	600	100	1,300	13	69
240—359 ..	900	150	900	9	78
360—470 ..	1,200	200	500	5	83
480—599 ..	1,500	241	400	4	87
600—899 ..	2,250	375	600	6	93
900 and over ..	Over 2,250	Over 375	700	7	100
Totals ..			10,000	100	

*NOTE:—Based on estimated number of new households in each income category.

19.10. The most significant feature of this urban housing demand is that almost 70 per cent of the families cannot afford a home costing over K£600, or renting for more than Sh. 100 per month. At the lowest end of the scale, for annual incomes below K£120, the maximum house cost is K£300 and the maximum monthly rental of payment is Sh. 50. An additional difficulty, especially for the lowest income families, is that the average size of the urban family is increasing, in large part because more and more male workers recently from rural areas are being joined by their families. From an average of 4.2 persons in 1962, family size has increased to 4.6 persons at present, and is expected to reach almost 5.2 persons by 1974. This means that merely to hold over-crowding to its present level every new dwelling unit must have at least two habitable rooms, and the increase in house size makes it all the harder to bring unit costs down.

19.11. On the basis of new household formation, estimated urban demand also comes out at about 10,000 units per year during the Plan period, distributed as shown in Table 19.2.

AVERAGE ANNUAL REQUIREMENTS FOR HOUSING IN URBAN AREAS

Table 19.2

Urban Centre	Population (est.) 1968	Population (est.) 1974	Annual Increase per cent	Households* 1968	Households* 1974	Housing Units Required Av./yr.	Housing Units Required per cent of total
Nairobi	480,000	668,000	5·7	102,000	131,400	5,880	58·0
Mombasa	235,000	305,000	4·5	50,000	60,000	2,000	19·7
Nakuru	53,400	74,500	5·7	11,400	14,600	640	6·3
Kisumu	32,600	45,200	5·6	6,900	8,900	400	3·9
Eldoret	28,300	41,200	6·4	6,000	8,100	420	4·1
Thika	22,700	37,200	8·5	4,800	7,300	500	4·9
Kitale	10,900	13,000	2·8	2,300	2,600	60	0·6
Sub-totals	862,900	1,184,100	5·4	183,400	232,900	9,900	97·5
Urban Area Councils	98,100	117,100	3·0	20,900	22,700	360	2·5
Total Urban ..	961,000	1,301,200	5·2	204,300	255,600	10,260	100·0

*At 4·7 persons per household in 1968 and 5·15 persons per household in 1974.

It can be seen from the table that nearly 80 per cent of the annual requirements are in Nairobi and Mombasa, calling for large-scale urban housing programmes.

Organization and Resources for Housing

19.12. The formulation and implementation of Government policies and programmes in the field of housing are the responsibility of the Ministry of Housing. Agencies under the Ministry's direction are the National Housing Corporation (NHC) and the Rent Restriction Department, while management is shared with the private sector over the Housing Finance Company of Kenya (HFCK). The Housing Research and Development Unit (HRDU), at University College, Nairobi, operates largely on Ministry funds and carries out some research projects needed by the Ministry.

19.13. The National Housing Corporation, established in 1967, is actually an extension and enlargement of the Central Housing Board, which had been created in 1953. NHC was instructed to continue the functions of the Board, but was given wider powers to promote low-cost housing, stimulate the building industry and encourage and assist housing research. It is the Government's main agency through which public funds for low-cost housing are channeled to local authorities, and for providing the technical assistance needed by these authorities. It also undertakes direct construction as necessary to stimulate the private sector or to overcome bottlenecks in particular local authority projects.

19.14. Loans made by NHC to local authorities are for 20 years for tenant-purchase schemes and 40 years for rental projects, and carry a 6½ per cent interest rate; they are amortised at equal semi-annual payments combining principal and interest. Local authorities usually calculate the monthly payments due from the house purchaser or renter on the basis of 7 per cent for the loan capital from NHC, the difference to cover administrative costs. NHC's operations to date are summarized in Table 19.3. As the record shows, NHC's operations have steadily accelerated; it has now used up all the funds previously held on deposit, and has put out all the K£895,000 allocated for lending to local authorities during 1968/69.

19.15. The Housing Finance Company of Kenya began operations in January, 1966, as the result of an agreement between the Government and the Commonwealth Development Corporation. Its directorship consists of two Government representatives and two from CDC, with the chairman appointed by Government, and its main purpose is to make loan finance available to

N.H.C. Lending and Construction Operations, 1964–68

Table 19.3

Year	Loans to Local Authorities		Construction by N.H.C.		Total Completed		Average Loan (K£)
	Issued (K£'000)	Units (No.)	Completed (K£'000)	Units (No.)	Amount (K£'000)	Units (No.)	
1964	138·2	922	11·2	14	149·3	936	160
1965	414·8	812	43·7	78	458·5	890	515
1966	175·5	547	37·7	64	213·2	611	350
1967	242·1	405	119·1	145	361·2	550	655
1968	1,041·7	1,205	184·2	383	1,225·9	1,588	780
Totals ..	2,012·3	3,891	395·9	684	2,408·1	4,575	525

promote home ownership in urban areas and indirectly encourage mortgage lending in Kenya. Initial loan capital was K£700,000, but it was decided in 1967 that the company should gradually build up a revolving fund of up to K£3 million, with about K£1 million in long-term capital to be borrowed from Government and other sources. Capital available for loans is currently K£1.4 million, of which Government has put up K£475,000 and is committed to provide a further K£75,000 during the Plan period. From the beginning of 1968, HFCK was also authorized to launch a housing savings scheme and to accept new deposits from the public: during 1968 new deposits amounted to K£331,000. Together with substantial new funds expected to come from the Commonwealth Development Corporation, HFCK's mortgage assets are expected to reach about K£4.5 million by the end of the Plan period. Lending operations to date are summarized as follows:—

H.F.C.K. LENDING OPERATIONS, 1966–1968

Table 19.4

Year	*Loans Advanced* (K£'000)	*No. of Units* (*est.*)
1966	17·4	6
1967	264·7	89
1968	391·3	130
Totals	673·4	225

Loans are for 15-20 years, at 8½ per cent interest, and the borrower must put up an initial cash payment of 10 per cent on new construction (25 per cent on existing) and furnish the necessary security for the mortgage. HFCK, in general, offers financing on homes costing more than the K£1,200 ceiling under which NHC extends most of its credit, and will consider loan applications on homes costing up to K£7,000; present policy is to emphasize loans for the K£2,000-K£5,000 range. The maximum loan is K£6,000. Because of capital limitations, HFCK's operations have resulted in the construction of a small number of high-cost homes, with an average loan of K£3,080. Of its total K£639,500 in mortgage assets outstanding, 91 per cent is for mortgages exceeding K£3,000 and 35 per cent for mortgages exceeding K£5,000. Nevertheless, the shortage of credit facilities available to the general public, and the recent trend to reach further down in the cost range, make it desirable that HFCK continue to increase its lending operations and extend its services to all municipalities.

19.16. The Housing Research and Development Unit has been created to investigate practical problems of construction, site organization, financing of housing, and the saving patterns of urban households and their social formations. The basic objective is to discover approaches and techniques which can bring housing costs within the reach of most of the people. There is an imperative need to accelerate the creation of inexpensive urban housing for the low-income groups, so they may find shelter of an acceptable standard at a monthly cost within their means. The Government's basic housing policies and programmes are directed to this objective and it is expected that effective research may provide the answer to the problem.

19.17. Other ministries directly concerned with housing are Finance, Local Government, Lands and Settlement, Works and Economic Planning and Development. Local authority applications to NHC for housing loans are reviewed by the Ministry of Local Government, in consultation with interested ministries, before granting the necessary loan clearance. Housing sites are subject to approval by the Ministry of Lands and Settlement, with special attention by its Town Planning Department to questions of accessibility and the location of services. Staff housing is planned and contracted out by the Ministry of Works, in consultation with the individual ministry requesting the facilities. And the Ministry of Economic Planning and Development, together with the Ministry of Finance, works closely with the Ministry of Housing in forecasting the demand for housing, formulating plans for improving its supply, and considering broad development issues in the housing field.

19.18. Finance is the most serious constraint preventing the housing programme expanding as fast as Government would wish. Even though the Government's allocation for housing is steadily being increased, it is far from sufficient to fill the gap left by the dearth of private money. At present, there are few private credit institutions which actively make loans for housing: a small but rapidly growing building society and two insurance companies. A savings and loan subsidiary of a large insurance company recently suspended its housing loan operations. In any case, total mortgage credit provided by these firms has been declining since the 1961 high point of K£4.2 million; in 1968 total mortgages outstanding were under K£2.5 million. It was the downward trend in private mortgage offerings, in fact, which led the Government to set up the HFCK in 1965. There is a pressing need for more private savings to be channeled to housing investment. In recent years, part of the problem has been that resources held by non-citizens have been diverted to short-term investments or hoarded, because of uncertainty about their future status. These uncertainties are being resolved and those who remain as citizens can be expected to consider housing a rewarding sector for some of their funds. Additional channels are needed so that private funds can go into housing: new building societies, housing co-operatives, and existing commercial banks can perform this function. In addition, more of the large resources of the insurance companies should be attracted into housing, either directly or through intermediate credit institutions. But until the private sector undertakes to finance a substantial share of annual housing requirements, and move into lower cost housing, the Government must continue to invest heavily in housing. It should be noted that overseas loans for housing are relatively rare and, moreover, are for modest amounts at medium term and in the higher range of interest rates. If international agencies and donor countries would seriously undertake to provide substantial loans for housing, on reasonable terms, the outlook would be very much brighter.

19.19. The many skills needed for planning, designing and building houses are in short supply. Especially scarce are the construction supervisors and foremen needed to keep a project going efficiently and to train others in lesser supervisory posts. There are noticeable shortages of masons, electricians and plumbers, and an especial scarcity of carpenters, but a fair amount of vocational training is under way in the polytechnics, and by the City of Nairobi in its projects. In general, however, it is not expected that the planned expansion of the housing programme will be noticeably held back by manpower shortages in the construction industry.

19.20. Land suitable for housing development is becoming increasingly scarce in the cities and towns. Fortunately, the Government owns much of the land in and around urban areas, and this can be assigned to public housing schemes where appropriate. The problem for private housing is much more serious: even if an investor were disposed to promote an estate of modestly priced units, it would be difficult to find the land for it, though individuals who wish to build a middle to high-cost house generally have no trouble in getting a plot. Individuals with low incomes can do little by themselves; their only hope is to acquire a site-and-service plot prepared by their local authority. In view of the growing pressures on the land, for other uses as well as housing, Government will make long-term forecasts of how much land will be required for housing in the urbanized areas.

19.21. Building materials for housing are generally available as needed, although shortages develop from time to time at outlying sites where transport and distribution present difficulties. Stone has been relatively scarce, with a consequent sharp rise in price. Seasoned timber of proper dimensions for house construction is also scarce, though the situation is improving. A serious disadvantage faced in house construction is that many components must be imported: examples are sanitary fittings, finer grades of hardware, several types of roofing and wall coverings, electrical components, and construction tools and machinery. It is estimated that from 15-35 per cent of the total cost of a dwelling unit is for imported components, depending on the particular cost bracket; this may easily involve K£1 million a year in foreign exchange at present building levels and the figure could be higher by the end of the Plan period. However, efforts will be directed to reducing these import requirements by promoting local enterprises for fabricating of housing components.

Major Housing Policies

19.22 In full recognition of housing's strategic role in improving living conditions and raising the nation's economic performance, the Government has recently declared that:—

> "The prime objective of Government policy in housing is to move towards a situation where every family in Kenya will live in a decent home, whether privately built or state-sponsored, which provides at least the basic standards of health, privacy and security."

Even with a sustained maximum effort in planning, finance and administration, combined with rapid growth in private residential building, it will take at least several decades to approach such a goal and, unless Kenya is an exception to the world-wide pattern, the objective will never be fully achieved. Also, it must be recognized that until the fundamental problem of inadequate incomes for thousands of families is solved, decent housing—along with the other elements of a minimally adequate standard of living—will continue to be beyond the reach of a significant portion of the population.

19.23. Nevertheless, Government housing policy is to utilize all the resources that can be made available in a manner to achieve the maximum possible improvement in the quantity of housing over the Plan period. This will be done by expanding and introducing a number of programmes for promoting housing: loans to municipalities and other local authorities for housing; direct construction of housing where local authorities cannot undertake it; pilot schemes in rural and urban areas; participation in the financing of private housing by business enterprises and by individuals; assistance to companies who undertake employee housing projects; financial and technical aid to housing schemes in settlement, land consolidation and irrigation projects; improvement of housing design, with emphasis on the use of local materials; and research into housing markets and the constraints on supply, especially in finance, the contracting and building industry, and in building codes.

19.24. Because of the extreme urgency of urban housing needs, most of the Government's development programme will be directed to help meet them, but an average of K£300,000 per year is being allocated to the promotion of housing outside urban areas. Furthermore, because four-fifths of the urban demand is for dwellings costing under K£1,200, it has been decided that all Government lending through NHC will be for projects designed to produce homes at that figure or below. Houses costing more than K£1,200 will be financed through HFCK and the private sector. As far as possible, the production of houses at different cost levels will be matched to the relative need according to income groups. Finally, since the overall shortage is so acute, available finance will largely be used to expand the total stock of houses rather than to clear slums or purchase existing dwellings. Replacement of large areas of dilapidated urban housing, especially in Nairobi and Mombasa, will for the most part have to be postponed until the shortage of housing can be substantially reduced.

Housing Development Programme

19.25. For the Plan period, the total investment in housing, both public and private, is projected at over K£53 million, as shown in Table 19.5. The Government itself intends to spend almost K£27 million on housing development, through the Ministry of Housing and staff housing expenditures by other ministries. This represents over 13 per cent of the Government's total spending for development during 1969-74. Table 19.6 illustrates the planned allocation of the various Government programmes, which rise from about K£2.3 million in the first year to nearly K£4.0 million by the fifth year.

19.26. *Urban Housing.*—It is planned that 85 per cent of Government development expenditures for housing will be in urban areas. Most of this K£11.7 million programme will be implemented through NHC to assist municipalities' programmes and nearly K£9 million of it will be carried out in the four centres of Nairobi, Mombasa, Kisumu and Nakuru. As an illustration of the NHC programme, Table 19.7 sets forth the estimated distribution of the K£1.75 million investment in urban housing in 1970/71 for the seven municipalities and other urban centres. It is calculated that NHC's urban programme would supply about half the requirements in each of the urban centres, proportioned according to estimated income distribution. About a third of the expenditure will be for site-and-service schemes; that is, preparation of building sites and basic services so that individuals, with some assistance on technical matters and materials procurement, can put up their own houses.

19.27. The larger municipalities plan to construct considerably more housing than that financed through NHC, and will therefore need to work out additional financing from their own resources and loans as available. In the face of housing needs exceeding 29,000 units, Nairobi has a planned programme for over 10,000 units (of which more than 7,000 are scheduled to cost less than K£1,000) with a capital outlay of K£10 million. Mombasa's requirements of 2,000 units a year will be approached by programmes supplementary to the NHC-assisted projects which will supply about 1,000 units. The needs in the other urban centres amount to some 2,900 units a year, of which about 1,100 can be supplied through the NHC programmes; the gap will be closed to the extent that municipalities and urban councils can increase

TOTAL PLANNED AND PROJECTED EXPENDITURE ON HOUSING

Table 19.5 — *K£'000*

Programme	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Period
Central Government*	2,260	2,470	2,870	3,320	3,970	14,890
Institutional Housing†	1,570	2,360	2,700	2,890	2,770	12,290
E.A. Community	220	230	180	160	160	950
Local Authorities	1,770	3,080	3,310	3,960	4,410	16,530
Less: HFCK/NHC double-counted	−1,670	−1,900	−2,250	−2,650	−3,250	−11,720
Sub-total, Public Sector ..	4,150	6,240	6,810	7,680	8,060	32,940
Private Sector‡	3,000	3,500	4,000	4,600	5,300	20,400
Totals	7,150	9,740	10,810	12,280	13,360	53,340

NOTES:—*See Table 19.6.

†Expenditure included in individual Ministry budgets.

‡During 1964–68 private investment in modern dwellings grew 12 per cent a year, in constant prices, The projection is based on an annual growth rate of about 15 per cent.

PLANNED ALLOCATION OF DEVELOPMENT FUNDS BY MINISTRY OF HOUSING

Table 19.6 *K£'000*

Programme	1969/70	1970/71	1971/72	1972/73	1973/74	Plan Period
Urban Housing:						
NHC*	1,520	1,750	2,100	2,500	3,100	10,970
HFCK†	150	150	150	150	150	750
Total Urban	1,670	1,900	2,250	2,650	3,250	11,720
Rural Housing:						
NHC‡	200	250	300	350	400	1,500
Total Urban and Rural ..	1,870	2,150	2,550	3,000	3,650	13,220
Government Staff Housing ..	250	300	300	300	300	1,450
Refinancing, Compensation and Research (through NHC) ..	140	20	20	20	20	220
GRAND TOTALS	2,260	2,470	2,870	3,320	3,970	14,890

*For housing up to K£1,200/unit.

†Loans for housing in the cost range of K£1,200–K£7,000 (emphasis on K£1,500–K£4,000) (maximum loan K£6,000).

‡For rural pilot schemes, loans on conventional housing, and small loans for higher standards in traditional housing.

their resources for housing from internal funds and from loans. Annual housing programmes for urban centres without sufficient staff of their own will be planned in co-operation with the Ministry of Housing and the NHC.

19.28. *Rural Housing*.–Until rural incomes and expectations can be materially raised, so that rural families will actively demand housing of higher standards and more modern design, there is not much scope for housing development on the same basis as that projected for the urban areas. All but a small proportion of the rural families meet their shelter needs by building their own traditional type housing, in a volume estimated at over 40,000 units per year. No large-scale financing by the Government is contemplated for this grade of shelter, but encouragement and technical assistance as possible will be extended through Provincial Housing Officers, working alongside staff from the Ministry of Health and the Community Development Department. Information on improved design and construction techniques, leading to cost savings, will be continuously developed by the Housing Research and Development Unit and distributed to interested rural families through all available channels. Where there is need for erecting a group of houses, or a site-and-service scheme in small population centres, these will be financed by NHC through loans to local authorities, with the work contracted to private builders or, where possible, directly performed by the urban councils. Those rural families who are financially able to consider something better than traditional housing urgently need access to housing credit. Although the Government's development programme seeks to meet this problem through

YEAR 1970/71: ILLUSTRATIVE DISTRIBUTION OF N.H.C. FINANCING OF URBAN HOUSING UP TO K£1,200/UNIT, BY LOCALE AND COST BRACKETS

Table 19.7

Costs in K£

Average cost of House*	NAIROBI		MOMBASA		NAKURU		KISUMU		ELDORET		KITALE		THIKA		URBAN TOWNS		TOTALS	
	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost
200†	1,163	232,600	395	79,000	124	24,800	77	15,400	83	16,600	12	2,400	96	19,200	70	14,000	2,020	404,000
450	1,115	501,800	377	169,600	120	54,000	75	33,800	80	36,000	11	4,900	94	42,300	68	30,600	1,940	873,000
750	286	214,000	98	74,000	31	23,200	20	15,000	20	15,000	3	2,200	24	18,000	18	13,500	500	375,000
1,050	154	161,700	53	55,600	17	17,800	11	11,600	11	11,600	2	2,100	13	13,600	9	9,400	270	283,500
Totals	2,718	1,110,100	923	378,200	292	119,800	183	75,800	194	79,200	28	11,600	227	93,100	165	67,500	4,730	1,935,500
90 per cent NHC financing ..	2,718	999,100	923	340,400	292	107,800	183	68,200	194	71,300	28	10,400	227	83,800	165	60,800	4,730	1,742,000

*Cost brackets are: K£0–249; 250–599; 600–899; 900–1,200.

†Site and service schemes.

NHC, working closely with the Ministry of Local Government and the local authorities, a more satisfactory solution must be developed for this group, possibly through the agency of co-operatives when they become able to administer a housing credit programme. Finally, to demonstrate improved design and construction methods for simple types of housing, continuing to emphasize local materials, NHC will promote at least one pilot rural housing scheme in each province, starting with about 20 houses and going up to as many as 100, as warranted. Emphasis will be given to the areas selected for the pilot programme for rural development (*see* Chapter 6). The total allocated for rural housing development over the Plan period is K£1.5 million, to be distributed among the provinces in accordance with population, state of economic development, relative housing shortages, need for demonstration projects, and other considerations. Implementation of rural housing policy will place heavy reliance on the Provincial Housing Officers, housing committees and development committees to make constructive proposals, recommend how each provincial allocation might best be used, and suggest sites for housing schemes and how the houses should be occupied and managed.

19.29. *Staff Housing.*—Government long-term policy is to move away gradually from responsibility for housing civil servants in the main urban centres, except for those working in essential institutions such as schools and hospitals and those at remote stations or liable to frequent transfers. It is expected that many civil servants will rent or purchase their own houses, either independently or under rental and home-ownership schemes introduced in the towns. Housing for junior Government staff will normally be found within the local authority housing estates. Local authority estimates for new construction should therefore include provision for housing this class of civil servants.

19.30. Staff housing by the ministries is financed in each ministry's development vote and is projected to cost K£12.3 million over the Plan period, rising from K£1.6 to K£2.8 million a year (Table 19.5). At present, this significant level of investment in Government staff housing is handled by each ministry in co-operation with Ministry of Works. Consideration is now being given to assigning responsibility for all staff housing to the Ministry of Housing, so that appropriate standards could be made uniform for all ministries, and funds be most efficiently used to produce the maximum number of housing units.

19.31. To meet the needs of Government staff who are not taken care of through institutional housing promoted by the various ministries, the Ministry of Housing will spend some K£300,000 a year to construct about 100-150 units annually. Measured against the need as shown by project proposals from all districts, the allocation is inadequate, but every effort will be made to raise it during the Plan period.

Other Housing Measures and Policies

19.32. *Site-and-service schemes.*—These schemes will be a significant part of the housing programme in urban areas. If no alternatives are available, the lowest-income families will build the temporary houses they need anyway, as witnessed by the existence of large and expanding illegal squatter areas near the urban centres. It will be the responsibility of the local authorities and the NHC to ensure that this activity is channeled into proper self-help schemes on serviced sites, lest the task of removing them or providing them with services later on becomes a grave problem. The degree of servicing such sites will vary from the mere laying out of sites for houses and space for communal families to a fully developed service system commensurate with the type of community envisaged. As 35 per cent of the total need for housing lies in the cost category up to K£300 (Table 19.1), the policy is that K£3.6 million of the K£11 million to be provided to the NHC for urban housing over the Plan period will be used to meet these needs. It will be the responsibility of the Government, especially through the Housing Research and Development Unit and Nairobi's low-cost housing projects, to continue intensive investigations to develop prototypes of houses which will meet this cost discipline and still provide people with a decent dwelling on a serviced plot. As this particular part of the programme is vital to the success of the housing policy and requires special expertise in town planning, the Government will appoint an officer in the Ministry of Housing to guide and control this aspect of housing and to advise local authorities, in consultation with the Town Planning Department, NHC and the Housing Research and Development Unit, on how site-and-service schemes should be organized and executed. In this context, site-and-service schemes mean "low-cost self-help schemes" comprising houses costing up to K£450. It will be for the local authorities in consultation with the housing officer to ensure that buildings are erected according to approved plans and specifications.

19.33. *Industrial Housing.*—For the future development of the economy it is essential that high priority be given to housing needed for industrial expansion. Lack of housing for the workers can be a serious impediment to setting up new industries and expanding existing ones. It will be within the responsibilities of the NHC, subject to the finance available, to assist private enterprises with loans for housing employees in the lower-income brackets. In addition, the Government will look into further incentives to encourage private enterprise to invest in housing.

19.34. *Housing for settlement, land consolidation and irrigation schemes.*—Housing is an important part of such schemes and must be taken into account in allocating priorities. Because of the stringency of funds and because the people are already skilled in the use of local materials, the major portion of this type of housing, both on the farms and in small rural centres, will continue to be built by the rural community themselves. Nevertheless, every possible assistance, will be given by the NHC, which will accept applications channeled through the Provincial Development Committees.

19.35. *Loan guarantees.*—Legislation was enacted by Parliament in 1967 to enable the Government and local authorities jointly to guarantee a part of the loans advanced by qualified lenders to citizens for home-ownership. Thus far this programme could only be implemented in Nairobi, where it has stimulated the development of home-ownership schemes. It will be extended to other local authorities as conditions permit. A supplemental policy provides that any advance payment in excess of requirements will be guaranteed by the Government on payment of a small premium by the purchaser. This arrangement will only affect citizens and will be operated by the HFCK. The amount of premium will be fixed with the agreement of the Treasury, and Parliament will be asked to amend the existing Guarantee House Purchase Act of 1967 to enable this alternative arrangement to be operated for the benefit of those who cannot be helped under the existing law.

19.36. *Availability of urban land.*—As the aim is to use the scarce finance available for housing to produce the greatest number of dwellings at prices and rentals which the people can afford, housing policy must stress the need to make urban land available for housing at reasonable cost. It is important for low-income groups to be able to obtain reasonably cheap plots on which to build. During the next five years in urban centres, where a scarcity of serviced land already exists, the main emphasis in Government policy will be on planning new areas and making these available for owner-builder schemes or for site-and-service projects. Accurate knowledge of land requirements will guide a continuous acquisition programme well in advance of construction, which will have the further advantage of keeping land prices from rising as fast as they otherwise would. It will be the task of the NHC, acting on the advice of the Commissioner of Lands and the Town Planning Adviser, to finance the purchase and development of such land, in conjunction with the local authorities concerned. An essential part of this policy will be the encouragement of high-density development so as to reduce the cost per dwelling unit. Density zones will also be modified where necessary in order to make intensive use of urban land for housing and to bring it within the price which average workers can afford.

19.37. *Rent Control.*—The Rent Restrictions Department was established within the Ministry of Housing in late 1966, to restrain the sharp rise in rentals during 1965/66, partly occasioned by the slump in housing construction. A measure of control became necessary to curb speculative evictions by landlords and to protect lower-income groups in particular, while also ensuring that capital invested in housing continued to yield returns. Rents became subject to control for all dwelling premises for which the standard rental as of 1st January, 1965, was below K£40 per month unfurnished or K£55 per

per month furnished. Tribunals were established in Nairobi, Mombasa and Kisumu, and a small office in Nakuru; these have handled 3,200 cases to date, with only 18 decisions appealed. The effects of this programme are not precisely measurable, but it is believed that rent levels have been prevented from rising in a large proportion of the controlled premises. The programme is under regular review, and will be modified as necessary. It is planned to remove rent controls when the housing shortage has been reduced to the point where market forces will yield reasonable rent levels.

19.38. *Availability of building materials.*—Another important requirement for progress in the housing sector is to improve the supply and lower the costs of building materials and components. Part of this objective can be achieved by promoting domestic production of such items as hardboard, roofing, sanitary fittings, and hardware, which will also create opportunities for many new enterprises and additional employment. The Government will continue to encourage such import substitution through research and experimentation, and will promote the use of domestic construction materials wherever this leads to greater efficiency and lower costs.

19.39. *Housing research and statistics.*—The Ministry of Housing, in collaboration with the Housing Research and Development Unit (HRDU) at University College, Nairobi, has been undertaking a research programme in various aspects of housing, and intends to continue this important fact-finding operation during the Plan period. The sum of K£10,000 per year has been allocated for this purpose, and substantial external aid and technical assistance is also involved. Technical, financial and social research is under way and projected and the results achieved thus far have already proved of significant help in formulating housing policy and programmes. In addition to performing research, the HRDU is responsible for developing new courses to be offered in the Faculty of Architecture, Design and Land Development, particularly in urban and regional planning, and in urbanization problems. On the technical side, the Ministry of Works also engages in testing building materials and structural design innovations. Thus far, statistics related to the housing field have been scarce and of varying quality. Many basic indicators must be improved or developed so that planning in the housing sector can be as realistic as possible. This problem is being approached jointly by the Ministry of Housing and the Statistics Division of the Ministry of Economic Planning and Development.

19.40. *Documentation and information centre.*—The Government is examining the desirability of establishing a centre for the documentation and transmission of knowledge, results and experience gained from research in the fields of housing, building and physical planning, for the benefit of the construction industry. The realization of this project is accorded a high priority and is expected to be achieved within the Plan period. Technical and financial assistance for the centre will be sought from the United Nations and other multi- and bilateral sources. It is expected that an inter-ministerial board will be created to be responsible for the programme and operations of the centre. Representatives of the private sector will also be invited to serve on the board.

19.41. *Training for the housing field.*—There already exist important institutions, such as University College, Kenya Polytechnic, the Kenya Institute of Administration and trade and technical schools in the provinces, where skilled personnel for the housing industry will continue to be trained with the aim of enabling more citizens to acquire the knowledge and experience needed to participate to a greater extent than before in the building and supervision of housing schemes. The Ministry of Housing plans to establish a training programme in co-operation with the National Construction Corporation, local authorities and the Ministry of Education, in order to increase the number of African estate managers and contractors well suited to carry out modest housing projects in rural and urban areas. In some cases, particularly when undertaking modest projects in the rural areas, small contractors can build more cheaply than the larger and more heavily equipped building concerns. The policy is that African builders should undertake a large proportion of the construction programme financed from public funds. Both the National Housing Corporation and the National Construction Corporation will continue to work together closely to ensure the success of this policy. Steps will be taken to publish employment opportunities in the construction industry and to encourage young people, including students, to seek a career in this field. Until training catches up with requirements, however, it will be necessary to obtain more technical assistance from outside than has been sought heretofore, especially at the higher professional levels of planning, designing, financing and constructing housing. There is a need for considerable technical assistance in the field and at municipalities other than Nairobi, besides the skilled people required by Government housing agencies.

CHAPTER 20—COMMUNITY DEVELOPMENT AND SOCIAL SERVICES

Community Development

Community development reflects the concern of the Government for the betterment of the people by helping them to help themselves. The Department of Community Development works essentially from the basic principle that sound, self-generating economic and social growth arises from the participation of the people at all levels. The staff of the Department of Community Development has established its most effective role in the developmental process amongst the smallest collective groups. Its major functions include: the engendering of new goals, the dissemination of new ideas and techniques, and co-ordination and liaison to put those ideas to work with the aid of the specialized skills of technical experts. Above all it strives to encourage the enormous demonstrated capacity of the people to develop the nation through self-help.

20.2. *The Self-help Movement.*—Independence has been characterized by a national fervour for nation-building activities. The self-help movement has grown steadily since it was first launched by the President, and there is now no part of the nation which is unaffected by this fundamental community activity. By 1966 more than 9,600 kilometres of access roads, and over 1,000 small bridges had been constructed by this method. During the same period more than 145 kilometres of pipeline, 50 dams and rock catchments, and 500 protected springs were installed to provide water supplies. In addition, over 2,500 community facilities such as school buildings, nursery centres, health centres and dispensaries were built.

20.3. The intensity of this form of community action has been even greater in the subsequent period. In 1967 alone over 3,600 community facilities were completed, 119 piped water supplies were installed, and 410 wells and protected springs built. In addition, 1,659 fish ponds were built and stocked. The peoples' contribution to self-help projects in terms of labour, cash and material during this year was approximately K£2 million. The Government's contribution has been but a small proportion of the basic capital costs. Of the total value of projects completed in 1967, 94 per cent was contributed by the people. Nevertheless, the relatively small capital injections provided by Government are often of great significance in maintaining the momentum of a project, and it is intended that the Government should increase its contributions to the part-financing of self-help schemes up to a total of K£444,000 for the Plan period.

20.4. But the promotion of domestic saving and investment through the *Harambee* movement can only be maintained if self-help projects are properly planned and co-ordinated with the development in other sectors of the economy. Projects must be built with the full knowledge and acquiescence of all relevant authorities, particularly the District Development Committee. This is especially the case in large projects, but the volume of projects is such that even small projects must be carefully scheduled.

20.5. Three major problems have been identified which endanger sound planning of projects. In some cases a lack of community development or technical personnel to give proper advice at both the planning and execution stages, and a lack of area targets has allowed projects to drift. Secondly, and related to this, many self-help groups have had a degree of autonomy so great that they have gone forward on projects where it was doubtful that recurrent costs of operation could be ensured. Thirdly, political and personal considerations have sometimes influenced the initiation and location of projects, often to the detriment of good overall planning.

20.6. Immediate steps will be taken to increase the co-ordination of the Community Development Committees with the Provincial and District Development Committees whose agreement will be required before the start of any project. A *proforma* to be completed with respect to every project contemplated and a series of simple, nationally applicable regulations controlling the planning and completion of self-help projects has been developed and will be put into effect immediately. The District Development Committees will also co-ordinate Government financial and technical assistance for self-help projects.

20.7. The introduction of more comprehensive regulations and planning control cannot succeed without the simultaneous development of better supervision and liaison. The staff of the Community Development Department will be increased and training improved. It is intended to post Provincial Community Development Officers to North-Eastern Province and to Western Province during the Plan period and to increase the staff at all levels as rapidly as possible. The priorities will include postings to areas lacking staff altogether, to areas now inadequately staffed and to areas of intense self-help activity.

20.8. Under this Plan, it is intended to employ a number of Community Development Assistants directly rather than through the Local Authorities. Some of the most under-developed Districts in the country are without this kind of personnel because the County Councils concerned are too poor to employ them. These Districts are where such personnel are needed most and the objective stipulated in the 1966/70 Plan whereby Central Government undertook to supply them will now be implemented. Indeed, the number of Community Development Assistants must be increased throughout the country, not only in these Districts. In certain Districts the present work load exceeds 200 self-help projects per Assistant, often spread over very large areas. This ratio will be greatly improved during the Plan period.

20.9. However strong the organization for community development may be, and however simple and concise the regulations are, proper planning and co-ordination will always be largely dependent on the wide understanding of development among the people themselves. The County Councillors, the local politicians, the Chiefs and other leaders must be trained to become more planning conscious. A Training Programme is planned to develop the people for full participation in building the nation.

20.10. *Rural Training.*—It is an important objective of the Department of Community Development to work towards the integration of existing training centres at District level and the ultimate creation of multi-purpose District centres to co-ordinate training programmes to ensure maximum impact on rural development through co-ordinated extension services. Such multi-purpose District centres will be termed "District Development Centres" for they will provide the facilities for all or most of the rural training and education services carried out at district level through courses for farmers, co-operative staff and members, traders, community development, health and nutrition, local leadership courses, adult education, literacy and other national and local development activities. The Centres will also serve as a base for the co-ordination of all extension services, and the staff of the centre will teach on residential courses, extension programmes, and help supervise other rural educational facilities such as the Youth Centres and Village Polytechnics.

20.11. Plans are presently being formulated by the relevant Ministries with the aid of the Board of Adult Education for the creation of two such centres on an experimental basis, to be located in Embu and Kwale Districts. After an initial period of experimentation and evaluation, it is anticipated that such centres if found satisfactory will be located in every District. The capital costs of such centres will vary depending upon existing facilities, but is estimated that approximately K£80,000 will be required for a completely new centre where no prior facilities are in existence.

20.12. At present there are 16 District Training Centres owned by the County Councils and supervised by the respective Community Development Officers. Until the extensive development of District Development Centres is achieved, training courses will be conducted at the District Training Centres, at the Farmers Training Centres or at any appropriate institution which is available. Provision of adequate and up-to-date training facilities and the recruitment of qualified instructors to man these facilities is vital for the whole programme of rural development. Extension to 14 existing Centres is planned for the new Plan period at a cost of K£39,000, and it is anticipated that this will substantially reduce the later cost of conversion of these to District Development Centres. It is also planned to recruit additional lecturers for the existing centres during the Plan period.

20.13. In addition to the training programme to be conducted at the District Training Centres, a Mobile Training unit which can go to the people will also be introduced. Such a unit will be more effective and economical in the nomadic and under-developed areas where districts are large and the population is scattered and light.

20.14. Professional and in-service training for Community Development staff at senior and junior levels is provided by the Kenya Institute of Administration, and it is hoped that it will be possible to provide a professional Diploma course in Community Development in collaboration with the University College, Nairobi. This course will serve a most important function in raising the academic level of senior staff recruited in past years to the minimum requirements which have now been established.

20.15. *Research and Evaluation.*—The need to look back over past progress and problems in order to improve present operations and future planning is clear. The field operations of the Department of Community Development are very complex because of their great range and variety. It is necessary, for example, to devise methods of introducing new ideas to rural people and to measure what success has been achieved over a given period of time. In addition, the proper route to the development of a community may only be discovered through the intensive study of the community's life, customs, and general attitude towards development. Materials so collected could then be processed and made available to field officers likely to be confronted with similar situations. The Research, Planning and Evaluations Unit recently established in the Department will be strengthened in order to undertake responsibilities of the magnitude envisaged.

20.16. Major functions of such a unit to be performed during the Plan period are: establishment of improved routine reporting for all departmental programme activities, conversion of routine record keeping to machine processed operations, evaluation of programmes in all divisions of the department, selected research into social problem areas, development of a research findings utilization service for all divisions of the Department, and forward planning of Departmental activities. To carry out these functions successfully the Department will recruit additional specialists to complement the existing evaluations staff.

DEVELOPMENT EXPENDITURE—COMMUNITY DEVELOPMENT

Table 20.1 — K£'000

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
District Training Centres	3·5	6·0	9·0	9·0	9·0	36·5
Self-help Capital Aid	89·0	75·0	85·0	95·0	100·0	444·0
TOTALS	92·5	81·0	94·0	104·0	109·0	480·5

Social Welfare

20.17. The Government has declared, in Sessional Paper No. 10 of 1965 and in its National Social Welfare Policy, that it is its firm objective to improve the general well-being of the people. This is in recognition of the truism that economic development cannot be divorced from the social advancement of the people. Such a policy compels greater involvement by the State in promoting the welfare of the individual. It makes the Government the major instrument through which the basic social services and social security of the people is guaranteed. Much has been done through the Medical Service, the provision of education and the establishment of the National Social Security Fund. However, much more needs to be done to extend such services to the more remote parts of the country and to categories of persons now under-served.

20.18. Social welfare is a vital component of such services because its methods are intended to provide a social climate in which the individual can more effectively meet his needs and fulfil his functions as a member of a community. Emphasis will be placed on those welfare activities which contribute to, and are a necessary prerequisite of greater economic progress. Certain services have no immediate economic implication, but their neglect has severe effects on the well-being of the whole nation. With these two aims in mind the underlying principle of all social welfare programmes will be that of prevention: preventing emergence of social problems which lead to human wastage and national decline.

20.19. Government participation in social welfare has been largely indirect, through support of the voluntary agencies by grants-in-aid and through self-help activities. Such support will continue, but in keeping with the more vigorous role to be adopted in all social services, Government will also engage in more direct action in social welfare. The following objectives are to be attained during the Plan period:

(i) To ensure through increased financial aid, or direct service, that some measure of service is available to the country as a whole and that the present disparity between urban and rural services is lessened.

(ii) To assist through welfare programmes in the elimination of social and personal disorganization and distress.

(iii) To render persons and communities more capable of participating in the life of the nation by helping them to obtain the basic necessities of life in time of need.

20.20. The limitation on resources requires that a clear order of priorities be established in fulfilling these objectives. These are as follows:—

(i) The family and child welfare services.

(ii) The care and rehabilitation of the disabled.

(iii) The development of welfare services in rural areas.

(iv) Expansion of the activities of the voluntary agencies.

(v) Public welfare assistance for the socially and economically handicapped.

To achieve these objectives, it is intended to establish a welfare administration in the Central Government, to increase the training of professional welfare personnel, and to initiate investigations into social problems, services and needs.

20.21. *Family and Child Welfare.*—The basic emphasis will be to safeguard the unity, stability and health of the family. This is to be attained through prevention of family breakdown rather than through the development of highly specialized care or remedial treatment of any one segment of the family unit. Since several voluntary and international agencies already operate in this area Government intends to promote better co-ordination in existing family-centred programmes through a supervising and consultative bureau within the Social Welfare Division. It is not intended to take over existing services, but to support them.

20.22. Family and foster care of children will be carried out by the voluntary agencies with subvention from Government and supervision from the Government and the Kenya National Council of Social Services. Recent surveys have shown that, on the average, it costs much more to maintain a child in an institution than in a family or foster home. Furthermore, the United Nations Declaration of the Rights of the Child holds that the child should be brought up in a family atmosphere. Regular supervision of all children placed will be the objective of this plan. It will begin as a one-year pilot scheme in 1969/70, and if successful will be continued throughout the Plan period.

20.23. Institutional care will be continued in all cases where it is necessary, but Government will encourage the establishment of machinery to return the child to his community and to his own, or foster/adoptive parents as soon as possible. The principle of adoption is not yet widely accepted in Kenya. However, in the years ahead it may become the most desirable substitute method for child care. The Child Welfare Society will be assisted in promoting social education concerning adoption. Places of safety are an accepted institution performing a vital service in respect of boys without shelter or care in Nairobi. Government intends to continue its commitment for the Starehe Boys Centre, and it is anticipated that agreement will be reached for the provision of a similar facility for girls.

20.24. The Day Care or Nursery Centre Programme has assumed major proportions. By the end of 1968 there were 4,552 nursery centres in Kenya catering for nearly 180,000 children. Approximately 6,950 women were engaged as nursery school teachers or supervisors. About 50 per cent of these are in need of training. Government, through the District Training Centres and other courses, will assist in such training. A national syllabus is being formulated and a high level supervisory staff will be engaged consisting of one supervisor for each Province.

20.25. *Welfare Aid to the Indigent or Public Assistance Programme.*—A component of family welfare services is the nation-wide programme of assistance in cash for those in temporary economic difficulties. The Relief of Distress Vote will be used to rehabilitate the needy through the agency of the professional social worker and the Community Development staff. An average of 12,000 relief payments are now made annually. It is planned to reorganize the machinery for disbursing funds and it is estimated that more equitable coverage for the rural areas will result. Starting with an allocation of K£30,000 in 1969/70, allocations are planned to rise to K£40,000 in 1970/71 and remain at that level yielding a total over the Plan period of K£190,000.

20.26. *The Care and Rehabilitation of the Disabled.*—Even in a country with limited resources, programmes for handicapped persons may be justified on both humanitarian and economic grounds. Such persons equipped with some skill can become a community asset rather than a liability. The primary task of the programme will be to prepare handicapped individuals for work in the rural areas. During the Plan period it is intended to identify the needs of the disabled and develop or expand services for their care. Four aspects of the programme will be given priority: (i) agricultural training units, (ii) open education units for children, (iii) rehabilitation and vocational centres, (iv) sheltered and orthopaedic workshops.

20.27. In order to gather the basic information necessary for a fully effective programme and to create an understanding of rehabilitation among the people, a registration and social education programme will be instituted. In addition it is planned to begin 6 Agricultural Units, 3 Rural Vocational Rehabilitation Centres, 3 Rural Sheltered Workshops, 2 Industrial Rehabilitation Units, and 1 Urban Sheltered Workshop. It is also planned to provide a Mobile Orthopaedic Unit and a Mobile Eye Unit as well as Open Units for children in the regular schools. Kenya has already had some experience of such Open Units through the Society for the Deaf Children. Expansion will be on a pilot basis with one unit in each Province to test the approach for the country as a whole. A similar programme will also be instituted for blind children.

20.28. *The Kenya National Council for Social Services.*—This voluntary organization acts as a co-ordinating body through which Government may relate to the extensive voluntary sector. Representation is drawn from the voluntary agencies, Government Ministries, Local Authorities and co-opted members. It acts as an advisory body, making recommendations to the voluntary agencies on planning and extending welfare services. It has no operational programmes; neither is it intended to be a direct service agency. A closer relation will be established between the Government and the voluntary agencies through the National Council, for the voluntary agencies must continue to play a major role in welfare activity even as Government develops its capacity. They will be needed to supplement Government services, operate experimental programmes, and to provide channels through which citizens by voluntary financial contributions and work express their concern for the needs of others.

20.29. The KNCSS has formulated plans over the five years which include restoration of children from institutions to the community, planning for youth hostels, dealing with vagrant children, assisting with the promotion of care for, and rehabilitation of the disabled and training and educating for social workers. The Council will also engage in more intensive field work in closer liaison with Government welfare workers and will strengthen its local councils of social services, particularly in rural areas. Government intends to continue its support to the KNCSS through grants to supplement its own funds derived from private sources. It is also intended to provide grants directly to certain of the voluntary agencies affiliated to the National Council. At the present time such grants amount to less than 5 per cent of the funds expended by the voluntary sector each year. It is the intention of Government gradually to increase its programme of grants at the same time that it expands its own activities in this field. It is anticipated that grants will be provided for approximately 45 agencies with priority given to the following services: 50 per cent to Family and Child Welfare Programmes, 25 per cent to services for special groups such as women and youth with an emphasis on preventative services, 15 per cent to community welfare programmes and 10 per cent to remedial services for the aged and infirm.

20.30. *Welfare Administration and Personnel.*—In order to administer the programme effectively, Government will expand the Social Welfare Section, a unit formerly dealing with public assistance payments only, to the status and with the operational functions of a Division within the Department of Social Services. The Division will be responsible for all matters relating to Social Welfare within Government. In order to carry out these duties, the staff of the Division will be increased. The target is one senior social worker, two social workers and seven assistants for each Province by the end of the Plan period.

20.31. Such a build-up of social welfare services will require intensification of training. The new programme at the Kenya Institute of Administration is expected to have an annual intake of 28 students, one third of which will be men. Beginning in late 1968, each new intake will be at the level of school certificate or its equivalent. Upgrading and refresher courses will be offered to those presently requiring additional training to improve their skills or to acquire higher administrative and supervisory competence. A National Advisory Council on Social Work Education independent of any one training institution will be established under the auspices of the Minister responsible for Social Services. Research to support these activities, and to guide the Division will be the responsibility of the Research and Evaluation Unit being established within the Department of Community Development to serve all its Divisions. In addition, liaison will be maintained with the University College, Nairobi, and international bodies.

DEVELOPMENT EXPENDITURE—SOCIAL WELFARE

Table 20.2 — *K£*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
CARE AND REHABILITATION						
Agricultural Unit	1,200	1,200	1,200	2,400	1,200	7,200
Rural Vocational Centre ..	12,190	13,500	13,500	—	—	39,190
Rural Sheltered Workshops ..	—	6,000	—	6,000	—	12,000
Industrial Rehab. Unit ..	17,100	—	—	17,100	—	34,200
Urban Sheltered Workshops..	—	13,000	—	—	—	13,000
Children's Educational Unit for the Blind	—	2,000	1,000	2,000	1,000	6,000
Children's Educational Unit for the Deaf..	—	3,500	1,750	1,750	3,500	10,500
Mobile Orthopaedic Unit	1,500	—	—	1,000	—	2,500
Mobile Eye Unit	—	—	—	1,500	—	1,500
Orthopaedic Workshop ..	6,000	—	6,000	—	—	12,000
Voluntary Sector Capital programmes	10	6,200	6,200	6,200	6,200	24,810
TOTALS	38,000	45,400	29,650	37,950	11,900	162,900

Adult Education

20.32. Adult education has a vital role to play in national development. Development implies changes, and physical changes cannot occur without changes of attitude among the people. Such changes are a product of education and where rapid changes are occurring, of adult education in particular. The building of the national infrastructure necessary to a growth of productivity depends to a considerable extent upon training of adults who are already on the job.

20.33. This responsibility is spread over a number of Ministries with the portfolio responsibility to Parliament being vested in the Ministry of Co-operatives and Social Services. Government policy is directed to promoting many different kinds of adult education. At present, the most important bodies engaged in programmes are: the Ministry of Agriculture with its pattern of Farmers' Training Centres and extension services, the Ministry of Health with a programme of Health Education, the Department of Co-operative Development with its educational section, the Ministry of Commerce and Industry with its educational teams, the Ministry of Information and Broadcasting, and the Department of Community Development and Social Services which supervises District Training Centres organized through local authorities, and has a cadre of adult education officers with responsibility for literacy, formal education and social education. In addition, the University College, Nairobi has an Extra-Mural Division, an Adult Studies Centre and a Correspondence Course Unit. The Municipalities also organize adult education classes, as do the quasi-Government institutions like the East African Railways.

20.34. The important voluntary agencies operating in adult education include: the National Christian Council of Kenya, the Catholic Secretariat, the National Council for Social Service and its associated member institutions, the Kenya Literacy Centre, and Maendeleo ya Wanawake.

20.35. All these ministries, departments, public authorities and voluntary agencies are represented on the Board of Adult Education which is responsible to the Ministry of Co-operatives and Social Services and which has been invested with co-ordinatory and advisory powers within the whole field of adult education.

20.36. The Division of Adult Education operates two major programmes, the National Literacy Campaign, and a formal adult education programme. However, there has been no clear distinction between the two and this has led to a certain amount of overlapping and blurring of objectives. Therefore, within the Plan period the objectives will be to organize and develop the National Literacy Campaign as a work-oriented functional literacy and numeracy programme throughout the country using the development programmes of other institutions as a framework for a literacy element. Such programmes will include: agriculture, family planning, health, co-operative development, self-help and relevant community development projects. The formal education programme to take adults on a part-time basis through to C.P.E. level will continue whilst investigation is made of the possibility of structuring an adult-oriented recognized C.P.E. equivalent more relevant to adult needs.

20.37. *The National Literacy Campaign.*—The objective of the campaign is to teach work-oriented literacy geared to the improvement of the general occupation of the people and over a period of four years to make those in the campaign functionally literate at an educational level equivalent to the C.P.E. The concentration of the campaign is in three distinct areas:—

(i) Rural areas in which the programme is intended for small farmers and rural workers where improvement of efficiency is of major importance.

(ii) Urban areas in which the campaign is designed for workers in Government and industry to enable them to improve their productivity and to help the youth who continue to flow from rural areas to the towns.

(iii) Plantation areas where the campaign is designed to give special attention to employees on large-scale farms and plantations by providing opportunities to gain literacy and basic education.

20.38. The campaign was planned in four annual phases, the first of which began in January 1967 and covered the following districts: Taita-Taveta, Kitui, Embu, Nyandarua, Nairobi, Kajiado, Kericho, Kisumu, Kakamega and Bungoma. The second phase in 1968 covered: Kilifi, Kwale, Machakos, Meru, Murang'a, Nyeri, Garissa, Nakuru, Nandi, Elgeyo-Marakwet, Uasin Gishu and South Nyanza. The third phase for 1969 covers: Tana River, Isiolo, Kisii, Kiambu, Kirinyaga, Baringo, Trans Nzoia and West Pokot. The fourth phase scheduled for 1970 covers the remaining districts of: Mombasa, Laikipia, Siaya, Lamu, Marsabit, Mandera, Narok, Samburu, Turkana and Busia.

20.39. Despite certain administrative difficulties associated with the rapid expansion of this very large programme and with the transfer from one ministry to another, target numbers have been maintained, reaching 141,600 in 1969. The future targets are as follows:—

ENROLMENT TARGETS OF THE NATIONAL LITERACY CAMPAIGN

Table 20.3 — '000 *Students*

Stage	I	II	III	IV	Total
1970	101	80	50	10	241
1971	202	100	80	50	432
1972	202	200	100	80	582
1973	202	200	200	100	702
1974	202	200	200	200	802

20.40. These figures relate only to those classes formally organized by the Division with part-time teachers paid from Government funds at Sh. 50 per month and students paying a fee of Sh. 2 per term. Besides these classes, there are self-help classes organized by Community Development Officers which are gradually being absorbed into the work of the Adult Education Officers. It is anticipated that a combination of self-help and Government action will eliminate illiteracy in Kenya in less than 20 years. To aid this, honoraria to part-time staff will increase from K£52,000 in 1969/70 to K£156,000 in 1973/74.

20.41. For the formal Adult Education Programme, classes will normally be based on District Headquarters and other main centres where there is likely to be a heavy concentration of adults requiring these classes. But close liaison will be developed with the Institute of Adult Studies at the University College, Nairobi and especially the Correspondence Course Unit to make available academic courses using correspondence integrated with regular face-to-face teaching for the less densely populated areas. It is intended that the formal education programme will be self-financing.

20.42. The present staffing of the Division is four Education Officers and thirty Assistant Education Officers. During the Plan period it is intended to continue recruitment on the schedule laid down in 1966. In 1969/70, five Assistant Education Officers will be added. In 1970/71 one Senior Education Officer, three Education Officers, and four Assistant Education Officers will be recruited. In 1971/72, three Assistant Education Officers, in 1972/73, three Assistant Education Officers, and in 1973/74, one Assistant Education Officer. In addition, 27 clerical staff will also be recruited to ensure that the technical officers are able to devote their time to other than routine reports.

20.43. The Divisional Headquarters will be divided into three major sections. The first will organize and maintain the literacy programme and operate a publications and materials unit to support that programme. The second will be responsible for the formal education programme and liaison with other bodies operating similar programmes. The third will be responsible for evaluation, training and the supervision of training centres. This section will work closely with the new research and planning unit within the Department of Community Development and be charged with forward planning. Recruitment of officers must be commensurate with these broad responsibilities in adult education. In the past, officers with teacher training in the child school teaching system have been recruited, but in the future a broader base will be necessary including persons with training and experience in agriculture education, health education, co-operative education, community development and other relevant fields. In-service training will also be given high priority and it is intended that a preliminary training course will be developed either at the K.I.A. or the Institute of Adult Studies of the University College, Nairobi, or in co-ordination with both.

20.44. A major problem of all literacy programmes is the provision of reading materials for the new literates. The Publications and Materials Unit will be responsible for selection, preparation and publication of primers and follow-up reading matter. It is expected to also give support to the formal programme and to training of staff. The Unit will require a Book Production Officer, an Audio-Visual Officer, a graphic artist, a Translation Officer and equipment to carry out its task.

20.45. The growing interest in and development of adult education programmes raises serious questions of the maintenance of standards and the transmission of experience throughout all the bodies active in this field. It is intended to initiate an Inspectorate of Adult Education to serve this function. In 1970/71, two inspectors will be employed, one to cover literacy and fundamental education and one to cover formal and vocational education. Since their brief will be related to many of the operations of the Ministry of Co-operatives and Social Services, they will be placed to the Department of Community Development and seconded to the Board of Adult Education for operational work.

20.46. The Department of Community Development is responsible for administering small grants to the municipalities for adult educational classes. These grants have in the past been given to Nairobi, Eldoret, Mombasa, Kitale, Kisumu and Nakuru. The pressure on the municipalities for the provision of different kinds of adult education is very great. It is therefore intended to develop the work of the Division in urban areas in liaison with the urban local authorities. Grants will be provided at a level of K£2,000 per annum for each year of the Plan period yielding a total of K£10,000.

20.47. The Board of Adult Education was established in 1966 by Act of Parliament. It is responsible to the Minister for Co-operatives and Social Services and is charged with the task of co-ordinating the field of adult education and providing recommendations on the overall development of this field throughout the country. Its membership includes all Government bodies and voluntary organizations engaged in the various phases of adult education. The Board organizes no programmes of its own, but works through its institutional membership. It does, however, act as a clearing house for information and organizes conferences. It is also empowered to initiate research. It receives an annual grant for these activites and to maintain its secretariat. It is clear that its activities will increase rapidly during the Plan period and it is proposed to increase its funds by K£500 in 1969/70 and by K£1,000 per annnum thereafter to aid it to meet its heavier work load.

20.48. Capital costs for the Division of Adult Education will be confined to the acquisition of materials and equipment for the existing units and are as follows:—

1969/70	1970/71	1971/72	1972/73	1973/74	Total
K£5,000	K£8,000	K£10,000	K£10,000	K£10,000	K£43,000

Sports

20.49. Sports are a vital part of the life of the nation. The physical fitness, health, and sense of co-operative effort engendered by participation in sports activities play an important role in nation building. A strong and well-co-ordinated programme of sports in the schools and other institutions of the country contributes substantially to these ends. Furthermore, the success of the nation's athletes has had an impressive effect on attitudes of people within Kenya and in the world at large. There can be no question that these effects have helped to build a positive image of Kenya and have demonstrated the capacity of Kenyans to excel when measured against the most exacting international standards.

20.50. Much of our success in sports has been due to the work of voluntary organizations and it is not the intention of Government to interfere unduly or to apply direct control upon sports activities. Such action would not only be contrary to International Rules but would be counter to our most basic values of self-help. However, Government has a clear duty to aid the development and regulation of sports activities through the agency of the National Sports Council. The Sports Division of the Department of Community Development and Social Services will be strengthened and reorganized at the local and national levels and will provide the secretariat for the National Sports Council.

20.51. The Kenya National Sports Council will be the supreme body responsible for advising the Government on all matters relating to the development, administration and discipline of all voluntary sporting activity.

The Council will also assist in the planning of sports programmes and the allocation of available financial resources to the various voluntary sports associations. All committees responsible for organizing local and international sports activities will become subcommittees to the National Council.

20.52. To ensure the full co-ordination of the work of the Council, it is intended that all local sports bodies should affiliate with the appropriate Provincial and District Associations and not only with the National Associations. Provincial Sports Officer for Nairobi and for North-Eastern Province will be employed to complete the coverage of all provinces at this level. Government will also begin a programme of recruitment of District Sports Officers capable of directing the enthusiasm of local bodies for a strong sports programme with proper coaching and co-ordination with the national programme. During this Plan period it is intended to recruit 16 District Sports Officers.

20.53. It is intended to strengthen the coaching done by the voluntary organizations through the services of national coaches for the most popular sports. National coaches for football, for boxing and for athletics will be engaged. It is also hoped that the Teacher Training Colleges will intensify their efforts in producing teachers with recognized diplomas in physical education. Such teachers will work in close collaboration with District Sports Officers in promoting programmes in the schools.

20.54. Grants to the National Sports Council will be a primary means by which the Central Government supports the provincial sports programme. The Council will allocate funds to the Provincial and District Associations for their annual programmes. Grants are estimated to total approximately K£50,000 over the Plan period. In addition, support will continue to be given for international sports events such as the Commonwealth Games to be held in Scotland in 1970, the All Africa Games in 1971 and the Olympic Games to be held in Germany in 1972. Financial support for such international events has totalled about K£34,000 over the last four years and it is estimated that approximately K£42,000 will be required during the Plan period.

20.55. Every province with the exception of Eastern and North-Eastern is now provided with a stadium. In order to encourage sports activities in these two provinces, grants will be provided for construction of a stadium in each of them during the Plan period. A grant of K£3,000 will be provided to Eastern Province in 1969/70 to aid the work which has already begun there. The Local Council has provided a sum of K£600 and further contributions are expected in the form of labour, material and funds. A stadium project with a completed value of K£10,000 is planned for North-Eastern Province in 1970/71. This project will be funded by the Local Authority and self-help from the people with the aid of a grant from Central Government.

20.56. The National Stadium plan which has grown out of the desire of the people of Kenya for facilities adequate for meetings of international standard, must remain the responsibility of the voluntary organizations. The Government fully supports the plan to build such a complex and sanctions an appeal for funds from both local and external sources, but cannot undertake the provision of the estimated K£5 million required for the project.

Youth

20.57. *The National Youth Service.*—The Service was established in 1964 for young men and women between the ages of 16 and 30. The objectives of the N.Y.S. are to place such young people in an environment which will inculcate good citizenship and provide an opportunity for education and training which will make of them productive, skilled workers or farmers. Through such a programme they can contribute directly to the economy of the country by helping to conserve, rehabilitate and develop the country's natural resources while they are in the service and they can enhance their opportunities for continued productive employment, primarily in the rural economy, after they leave the service. The N.Y.S. furthermore contributes to national unity by bringing together young persons from all areas of Kenya for training and work on projects of national importance.

20.58. Over the years of its existence more than 11,000 young men and 600 young women have joined the service. They have been recruited from all parts of the country and have worked on a variety of important projects. Following basic training, they move out to various Units and Project camps. They work on various projects within the Development Plan and thus serve two basic purposes: training in personal qualities and skills which will be of use in their own lives, and completion of important projects in national development. The work so far completed includes: 112 kilometres of road to give access to the Kindaruma Hydro-Electric Scheme; 56 kilometres of road linking Kiambu and Nyandarua Districts; 5,600 hectares of bush cleared in Nyanza and Western Provinces as part of an anti-Tsetse Fly campaign; 100,000 trees planted on the Kinangop Settlement Schemes; the construction of roads, dams and fences in various National Parks; demarcation for settlement at Gedi; and the construction of demonstration housing at Likoni. Projects now under way include the Kenya-Ethiopia Road, the new Kitui Road, airport earthworks, and flood protection along the Nzioa River. Exclusive of the work done on the major roads, which are financed separately by Treasury allocations to the particular projects, the use of N.Y.S. plant and machinery produces appropriations-in-aid amounting to approximately K£20,000 per annum. This figure is likely to be maintained throughout the Plan period.

20.59. Financing of these numerous projects has been provided under bilateral agreements and appropriations-in-aid from the Ministries, parastatal bodies and Local Authorities involved. In addition, much of the equipment has been supplied by the USAID—600 vehicles and machines, food, clothing, and some funds. However, many of these vehicles have exceeded their economic life and must be replaced over this Plan period. Advisers and volunteers have come from Great Britain, Denmark, Germany, Sweden, Switzerland, Israel and Japan. It is planned to phase out the remaining 30 volunteers and advisers by 1972, with the possible exception of mechanical specialists and road foremen.

20.60. At the present, Field Units are located at Mombasa in Coast Province, at Yatta and Archer's Post in Eastern Province, Gilgil in Rift Valley Province, Turbo in Western Province, and in Nairobi. The majority of women volunteers are based at a new unit which has been built at Naivasha, and one group is being trained at the N.Y.S. Harambee Waterfalls Farm near Thika. The N.Y.S. operates five farms for a total of 4,869 hectares of land. Starting from a herd of 47 cattle, holdings have now increased to over 500 head and will continue to increase. In addition, 60 servicemen receive instruction every three months on practical and theoretical farming at a Farmer Training Unit. Sales of livestock and farm produce from these farms is averaging approximately K£8,000 annually and it is anticipated that this income will be maintained. Educational facilities have been centralized at the Gilgil Central Education and Training Unit where all servicemen receive six months' concentrated education during their two-year service.

20.61. At Mombasa, the Service has a Vocational Training Unit. Instructors have been provided by the World Organization for Rehabilitation and Training Union and the Unit has spacious and well-equipped workshops. The courses include carpentry, masonry, motor mechanics, fitting and turning, and electrical work. The men are trained to the level of the Government Grade III Trade Test, and results are very good—with an average pass rate of 79 per cent at first attempt. The Vocational Training Unit also helps train Kenyan instructors to take over from those provided by the World Organization for Rehabilitation and Training Union, and the latter will be phased out entirely in 1971. The Unit is expected to bring 1,000 men to Trade Test standard over the Plan Period.

20.62. Since its inception, the National Youth Service has placed approximately 3,500 servicemen in paid employment and many others have found employment for themselves. The majority have become successfully self-employed as farmers or rural craftsmen. At the end of fiscal 1968-69 there were 3,000 volunteers in the service and it is intended to recruit approximately 1,000 each year to replace those leaving the service. In addition approximately 500 recruits will be added to the total strength each year. Under this rate of growth enrolment will reach 5,500 by 1974 and this will involve a concomitant increase in recurrent costs. All volunteers receive two months' basic training before proceeding to work projects throughout the country.

20.63. Capital programmes during the Plan period will be directed towards the extension and improvement of existing Training Unit facilities, the construction of the N.Y.S. Headquarters at Nairobi, and the provision of three new Field Units.

DEVELOPMENT EXPENDITURE—NATIONAL YOUTH SERVICE

Table 20.4 K£'000

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
N.Y.S. Headquarters and Housing Units	40·0	40·0	—	—	—	80·0
Central Education Unit, Gilgil ..	3·0	—	—	—	—	3·0
Women's Unit ,Naivasha ..	3·0	—	—	—	—	3·0
Mombasa Field Unit	13·0	—	—	—	—	13·0
Yatta Field Unit..	2·0	—	—	—	—	2·0
New Units	—	—	30.0	30·0	30·0	90·0
Staff Housing	5·0	9·0	4·0	4·0	—	22·0
TOTALS	66·0	49·0	34·0	34·0	30·0	213·0

20.64. Although the National Youth Service has great significance in the provision of training and the development of a strong sense of national unity among the young men and women of Kenya, it cannot meet the vast needs of this segment of the population. There are approximately three million people in Kenya between the ages of 8 and 19 years. The rapid expansion of the formal educational system is meeting some of the needs of this group, and it can be expected to produce an increasingly literate and effective population. However, there are pressing needs for a great variety of informal educational and training programmes which will provide youth with the tools to become better farmers, better artisans, and thus better citizens. The Ministry of Agriculture organizes 4K Clubs which now enrol about 26,000 members between the ages of 8 and 22 years and the Ministry of Co-operatives and Social Services provides a small subvention for the Youth Council of Kenya which co-ordinates the activities of a number of youth programmes organized by the voluntary agencies.

20.65. Two programmes which may hold special significance for the future are the Youth Centre movement and the Village Polytechnics. The Youth Centres began experimentally in Nyeri District in 1957 and have spread to many other parts of the country in the intervening years. Today there are approximately 170 youth centres catering for some 13,000 youths between the ages of 7 and 20 years and enrolling slightly more boys than girls. They are controlled generally by the Local Authorities and have an uneven development. The Centres do not seek to replace formal schools but give general education and simple trade training. They are generally non-residential and management is shared by the parents. The co-ordinating body for these centres is the Kenya Association of Youth Centres which has a council of 15 voluntary members and a secretary who is also the Kenya Youth Officer of the Department of Community Development. It is the intention of the Government to scrutinize carefully the operations of this movement over the Plan period with the possibility of future expansion, improvement and support.

20.66. The village polytechnics organized by the National Christian Council of Kenya are a second youth programme which may possess great future significance. This movement concentrates on the needs of unemployed primary school-leavers. At present there are some seven village polytechnics in operation or about to begin. These have been defined as "a very simple low cost Training Centre for school leavers to provide them with opportunities for developing their characters and changing their outlook on life: also to provide them with skills the excercise of which will fill a need in their home. The aim of the training is to be for self-employment and rural development". These are explicitly experimental and the outcome of the experiment is not yet clear. Their differences from the youth centres are, however, clear. First the village polytechnics accept only primary or secondary school-leavers, secondly, they are mainly residential, thirdly, they are closely supervised, and fourthly, the courses are sharply structured to integrate with localized manpower needs. The outcome of this experiment is to be monitored by Government for its future implications for national programmes of youth training.

Information and Broadcasting

20.67. The Government of Kenya is convinced that rapid economic growth and the modernization of the nation cannot be fully achieved without effective and comprehensive systems of communications designed to awaken the entire population to the need for change. In order to achieve this end, there is a need to increase facilities for the free flow of information and ideas which will help to produce an informed and action-oriented citizenry.

20.68. The Ministry of Information and Broadcasting is charged with the responsibility of informing and educating the people of Kenya, and providing a varied and suitable range of entertainment through both radio and television. It must also provide an efficient Information Service which can both gather and disseminate news and information throughout the nation. Visual, written and spoken media must be used to the full if these responsibilities are to be properly discharged.

20.69. Current radio facilities are based on two national networks. About 80 per cent of the population can now receive one or the other of them on medium wave. In addition there is a powerful short wave service backing them up. However, short wave is subject to interference and requires more costly receivers. For these reasons, it is intended to increase the number of small relay stations which will provide a further extension of the national medium wave coverage as economically as possible. This programme, which has been in progress for some time, is projected to cost a further K£155,000 over the Plan period. On completion, it is anticipated that approximately 90 per cent of the population will be able to receive both national networks on medium wave, and the appropriate vernacular broadcasts on short wave. Greater flexibility of programming will also be achieved by additional studio facilities and by the introduction of additional mobile units. These facilities, projected to cost about K£150,000, will improve production of radio programmes and allow extension of that part of the schedule at present offering programmes from the provinces.

20.70. The television service has expanded slower than sound broadcasting. Lack of staff and local production facilities make it dependent for over half of its programmes on overseas supply, and the high cost of receivers restrict consumer demand. Nevertheless, demand is not yet satisfied and coverage, which reached an area containing about 35 per cent of the population by 1967, will increase to an area containing about 50 per cent during the current year. If television is to pay its way, it must continue to expand its coverage and provide better and more attractive programmes. In doing so, it can add to its commercial income and also to licence revenue, but this expansion must be carefully planned taking into account availability of power, and earning levels of potential viewers so as not to outgrow demand. During the Plan period it is intended to complete the Mombasa studio and the transmitters at Mombasa and Timboroa as well as providing a low power translator at Nakuru. These facilities along with additional studio facilities and equipment and mobile units are projected to cost about K£350,000 and will provide not only better transmission coverage but also better local news and special event reporting.

20.71. *Information Services*.—It is intended to place considerably more emphasis on information services than has been the case in past years. The capacity of the Information Service is now inadequate to the demands created by rising literacy, the growth of rural incomes, and the expectations of the people that they will be quickly informed of important events throughout the country. The provision of better information services at both provincial and district level is regarded as a matter of high priority. Reading rooms and outdoor cinemas will form an integral part of the Information Service programme. Wherever possible these will be sited so as to strengthen the other forms of educational and extension service such as Farmers' Training Centres and District Training Centres. They may form a part of the proposed District Development Centre complex of educational and training facilities, where these are developed during the Plan period. In addition, film unit facilities must be expanded to provide the visual materials necessary to a stepped-up nation-wide programme with greater local impact. The provision of the necessary laboratory and production equipment is estimated to cost K£176,000. It is also intended to add new mobile units during the Plan period. These units will be provided with radio communications, recording equipment and film facilities to enable them to cover events anywhere in the provinces.

20.72. *Training*.—The Kenya Institute of Mass Communications has now come into operation, but it is still in need of certain facilities that will enable it to provide all the forms of training required. The provision of the highly sophisticated information and broadcasting services which now exist and will be further developed by this plan can only be achieved if there is sufficient and properly trained personnel to man them. The K.I.M.C. is intended to provide training on the technical aspects of radio and television management, programming, production, sales, engineering, audio-visual equipment operation and maintenance, and such other allied skills as are required for the effective use of the mass media. During the Plan period it is proposed to construct a hostel to house 100 students, equip the film block, the visual aids block, and extend the administration block thus freeing space for extra classrooms. The total capital cost of these projects and ancilliary equipment is estimated to be about K£166,000.

DEVELOPMENT EXPENDITURE—INFORMATION AND BROADCASTING

Table 20.5 *K£*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
BROADCASTING						
Medium Wave Relays ..	7,500	20,000	40,000	40,000	47,500	155,000
Kisumu Phase I	18,946	—	—	—	—	18,946
Kisumu Phase II	24,000	—	—	—	—	24,000
Nyali Station	32,640	—	—	—	—	32,640
Studio Equipment	2,500	2,500	15,000	20,000	—	40,000
Microwave Measuring Equipment	1,256	—	—	—	—	1,256
Radio Mobile Units	—	10,000	10,000	10,000	10,000	40,000
Standby Generators	20,000	—	15,000	15,000	—	50,000
Mt. Kenya Complex	—	65,000	65,000	—	—	130,000
Hillcrest Transmitter	3,000	—	—	—	—	3,000
Timboroa Station	6,330	—	—	—	—	6,330
Mombasa T.V. Station ..	115,000	40,000	25,000	—	—	180,000
Television Relays	5,000	5,000	—	50,000	—	60,000
Studio Equipment	5,000	30,000	15,000	15,000	70,000	135,000
Outside Broadcast Equipment	12,000	—	—	—	—	12,000
INFORMATION SERVICE						
Information Offices	5,000	36,000	70,000	103,000	129,000	343,000
Equipment and Libraries ..	—	6,000	75,000	40,000	40,000	161,000
Communications Network ..	—	—	45,000	50,000	55,000	150,000
Mobile Units	5,000	5,000	20,000	15,000	15,000	60,000
K.I.M.C.						
Buildings and Equipment ..	16,335	20,000	10,000	30,000	10,000	86,335
Visual Aids Block	—	20,000	—	—	—	20,000
Hostel	—	60,000	6,000	—	—	66,000
OTHER BUILDINGS						
Mombasa Studio Extension ..	12,000	—	—	—	—	12,000
Staff Housing	10,000	—	—	—	—	10,000
Other	2,000	—	—	—	—	2,000
TOTALS	303,507	319,500	411,000	388,000	376,500	1,798,507

Cultural Programmes

20.73. In the Development Plan 1966-1970 no specific attention was devoted to cultural development. However, the plan, in its whole structure, makes clear that the development of human resources is the fundamental basis of the stable and orderly growth of the nation. In order to ensure this orderly growth, it is necessary that attention be devoted to cultural affairs, for the culture of a people is the sum of knowledge, belief and organized action possessed by those people. This vast store of knowledge is shaped and modified by each individual and is transmitted in manifold ways, within the family, through the schools, in the groups to which a person belongs, at work, and in leisure time activities.

20.74. In Kenya today, as elsewhere, the people are the heirs of diverse cultural traditions. Many of these have been handed down within the numerous indigenous groups which comprise the nation. Many others have come to Kenya through contacts of its peoples with other parts of the world. Under these conditions of change the heritage of the past may often seem irrelevant and each individual may discard traditional mores, articles of craftsmanship, or artistic expressions which he feels impede his acceptance of new ideas, new relations among people or new modes of thought and belief.

20.75. Much of this change may be desirable and bring with it opportunities of better health, longer life and a fuller expression of each individual's capacities and promise. But there is a danger that valuable wisdom, satisfying aesthetic expression, and fulfilling patterns of relations among persons may be discarded in favour of cultural elements which do not replace fully that which they supplant. In the process of change upon which the country has embarked, satisfying meaning in life must be maintained which will ensure the unity and cohesion of the nation.

20.76. Government has an obligation to ensure that valuable cultural assets are not irretrievably lost and that the social integration of the country is not undermined by rapid change. The resources of the past must be protected and preserved in order that the people may keep in sight their rich heritage and maintain those ties with it which are meaningful in the contemporary world. Government intends to explore the possibility of a national organization of cultural activities which would co-ordinate the efforts of voluntary bodies and relevant ministries.

20.77. *The National Archives.*—In 1956 it was realized by the then Administration that action should be taken to preserve the records of administrative and historical interest which had accumulated for over half a century. However, the archives remained a small section under the direction of a clerk until 1963 when the cabinet agreed to the establishment of a National Archives Service. This was followed in 1965 by passing of the Public Archives Act. During the four years since this event well over 100,000 files and documents have been brought into the National Archives. A Public Archives Advisory Council has been established to advise the responsible Minister on matters relating to the location, preservation and use of public archives, and the reference library and search room has been improved. The National Archives now performs important services in the selection of papers for permanent preservation, assistance to Government offices in matters of records management, provision of microfilming services, the repair of documents and the organization of research facilities.

20.78. During the Plan period it is intended to establish a repair section, increase the photographic capability, undertake a more comprehensive review of records both in the Ministries and in the National Archives, acquire additional storage facilities, and continue and expand the programme of acquistion of privately held historical records. It is also intended to move into new quarters in another building where the physical operations of the archives can be consolidated. It is estimated that such a move will take place in 1971/72 and will require expenditure of approximately K£10,000 for remodelling of quarters.

20.79. *The National Library Service.*—In 1965 Parliament passed the Kenya National Library Service Board Act. As a result of this Act the Service was established in 1966 with powers "to promote, establish, equip, maintain and develop libraries in Kenya". Owing to unforeseen delays the Board did not become fully operative until mid 1967, and the appointment of its Chief Officer in September 1967. Since that time it has been occupied in a programme of recruitment and training of staff and acquisition of books. It has been housed in temporary accommodation on Bishops Road, Nairobi in the former Prisons Headquarters.

20.80. During the Plan period it is intended to continue a long-term build-up of qualified professional staff. It is desirable to construct a headquarters building in Nairobi as well as five Area Libraries. However, financing for these facilities is not fully within Government resources in this Plan period. Negotiations for aid are currently in progress with external donors to support this construction. As the Area Libraries come into operation, it is intended to open small Branch Libraries in whatever accommodation is available in population centres too far from the Area Library to have ready access to its facilities. It is also intended to operate a system of mobile libraries, five of which will be acquired under the plan.

DEVELOPMENT EXPENDITURE—NATIONAL LIBRARY SERVICE

Table 20.6 *K£*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Headquarters Building	—	—	150,000	—	—	150,000
Area Libraries	—	35,000	35,000	35,000	35,000	140,000
Book Mobiles and Equipment..	4,430	4,000	4,000	4,000	4,000	20,430
Purchase of Books	3,750	11,437	12,281	14,156	14,438	56,062
TOTAL	8,180	50,437	201,281	53,156	53,438	366,492

20.81. *The National Museums of Kenya.*—The museums have a double obligation to the nation. They must present to the public a variety of educational opportunities, and they must also engage in scientific research which will support their educational programme. The Government in recognition of the service the museum renders has supported the activities of the Museum Trustees in carrying out this obligation by providing Grants-in-Aid covering over 80 per cent of financial requirements. The Trustees have embarked on a major drive to raise funds for capital expansion both locally and abroad and it is intended that this drive, coupled with measures to increase local income, will provide a large part of the funds necessary to expand the museums and also pay a larger share of the recurrent costs.

20.82. The National Museum intends to pursue its educational objectives on many fronts. The display of exhibits and the dissemination of information to schools, colleges, and the general public will be enhanced through the development of a central Museum School and Education Centre, through the operation of a mobile unit which will travel to rural areas, through the promotion of local Museum Clubs, and through aid to the development of Provincial Museums. In order to carry out these objectives it is intended to develop close collaboration with other educational centres, and in particular with the University College, Nairobi.

20.83. The administration of the Museum, Historical Museums, and prehistoric site museums, as well as the mobile unit, the Educational Centres, and the projected Provincial Museums will be the responsibility of the Museum Trustees through an Administrative Director. The Museum Trustees, who form a statutory body, will maintain general responsibility for all programmes and are subject to the general policy guidance of the Ministry of Natural Resources. The scientific programmes of the Museums will, however, require direction from qualified scientists who will act as Department Heads or Research Directors under the Administrative Director. These allocations of responsibility are currently being effected by the transfer to the Museum Trustees of responsibility for Fort Jesus and the prehistoric sites of Gedi, Olorgesailie, Kariandusi and Hyrax Hill. It is anticipated that as more scientific research is carried out, further site museums will be developed in conjunction with important discoveries. It will be necessary to develop such museums as need dictates, but it is not possible to predict the numbers or locations of such discoveries.

20.84. The projects included in the development plans for the Museums include construction of new research facilities and galleries for the National Museum, a shop and cafeteria, equipment and facilities for the Education Centre and Mobile Unit, and repairs and extension of facilities at the Site Museums. The programme is summarized in Table 20.7.

DEVELOPMENT PROGRAMME—THE NATIONAL MUSEUMS OF KENYA

Table 20.7 *K£*

	£ 1969/70	£ 1970/71	£ 1971/72	£ 1972/73	£ 1973/74	£ Total
Mammal and Ornithological Research Building	4,500	—	—	—	—	4,500
Site Development Plan	—	900	—	—	—	900
Mobile Museum Unit	—	3,500	—	—	—	3,500
Mammals and Conservation Gallery	—	30,000	10,000	—	—	40,000
Shop and Cafeteria	4,000	—	—	—	—	4,000
Modernization of Site Museums	925	1,375	—	—	—	2,300
Entomological Research Facilities	—	500	—	—	—	500
Education Center	—	3,000	—	—	—	3,000
Ethnographic Gallery	—	—	3,500	4,500	—	8,000
Science and Techology Hall ..	—	—	—	18,000	15,000	33,000
TOTAL	9,425	39,275	13,500	22,500	15,000	99,700

20.85. The Cultural Division of the Institute for Development Studies was created in 1965 within the University College, Nairobi, and given responsibility for promoting and conducting original research in the fields of history, archaeology, social anthropology, musicology, linguistics, literature and traditional arts, crafts and belief systems. The purpose of this activity is to produce teaching materials and effect the rapid dissemination of research results with a true Kenyan content. A variety of circumstances slowed down the inception of this programme until early 1967 when the first two Research Fellows took up appointments. The Cultural Division has now embarked on a broad and varied programme of research and analysis of cultural materials guided by the precept that change and development must be firmly based in the culture and history of Kenya if the nation is to grow on a sound foundation.

20.86. The development of new and distinctly national cultural expressions is a natural growth arising from the people themselves, but it must be nurtured and supported by systematic investigations which preserve and analyse records of traditional culture and make them available to the public. In this endeavour the Cultural Division is working in close collaboration with other institutions such as the National Museum and the British Institute of History and Archaeology in East Africa. It is also intended that co-operation with the Kenya Cultural Centre should be developed. The greater share of the funds to support the work undertaken to date has come from external sources, but the Government intends to increase its support during the new Plan period. Such support can be expected to result in books, pamphlets, films and recordings suitable for use at various levels in the schools and for use by the general public.

20.87. Two major projects are now under way and will continue. These are the Kenya Material Culture Project and the Kenya Belief Systems Project. The former of these is a systematic and growing collection of representative objects made traditionally by the people of Kenya. Many such objects are now being replaced by imported or locally manufactured items which do not express the traditions, values and beliefs of the people. Their preservation at this time along with records of their meaning forms an important source of historical and technological information. The latter project is examining the traditional modes or systems of thought of the peoples of Kenya in respect to such divers aspects as health and disease, man's relation to nature, the roles of men and women and so on. It is also intended to begin systematic investigation of the creative arts of Kenya and to promote performance of the various art forms in co-operation with other departments of the college and the artists themselves. Workshops and an annual arts festival are planned and it is intended to work in concert with the National Theatre School in creating a more suitable climate for the traditional and contemporary arts of Kenya.

20.88. In the coming years the accelerating development will result in the destruction of many valuable evidences of the past history of the nation. It is therefore intended to establish an archaeological survey and salvage project which is capable of systematic surveys for new archaeological sites and rapid excavation of sites threatened by destruction through the construction of roads, dams and other projects. This survey will work closely with the Centre for Prehistory, the British Institute of History and Archaeology and the presently planned Department of Antiquities of the Government.

20.89. To engage in this range of programmes the Cultural Division will require additional staff, office and laboratory facilities and equipment. A full-time Director, two Research Fellows at Lecturer's rank and one Administrative Assistant at Assistant Lecturer's rank are required. Six offices and two small laboratories within the University College are planned and a modest amount of equipment will be acquired. Capital costs for equipment is estimated to total K£3,600 over the Plan period.

20.90. *Kenya Cultural Centre.*—The Cultural Centre incorporating the Kenya National Theatre has embarked on a major programme intended to make the performing arts more relevant to the national culture of Kenya. A National Theatre School was founded during 1968 to train students to professional standards such that they will be capable of providing leadership throughout the nation. Such students, upon completion of training will be expected to act as organizers of theatre groups throughout the country, to serve in the National Theatre Resident and Travelling Ensemble, or to become independent professionals.

20.91. It is only through the creation of a core of competent actors, writers, directors and technicians within Kenya itself that the nation can develop a living, relevant art which expresses the aspirations and goals of the people of Kenya. And it is only through bringing the theatre to the people by tours in the rural areas, establishment of local companies, and performances in social halls, tents and youth clubs that a vital force in contact with the people can be built. To achieve these ends a mobile theatre van will be acquired for a sum of K£5,000 in 1970/71 and Government grants will continue to be provided to the Cultural Centre. It is intended to increase these grants to a level of approximately K£7,000 per year to cover the operations of both the travelling and resident ensembles.

CHAPTER 21—INTERNAL SECURITY, DEFENCE AND THE JUDICIARY

Police

The Government has entrusted the Kenya Police with the essential functions of maintenance of law and order, protection of life and property, prevention and detection of crime, apprehension of offenders, and the enforcement of all laws and regulations. All these functions have a direct bearing on economic and social development. Without internal security, it is not possible to maintain an atmosphere conducive to rapid development. Experience has shown that failure to maintain internal security can lead to loss of confidence, economic stagnation or even recession. For this reason, it is of utmost importance that a strong and efficient Police Force should be maintained.

21.2. It is important that members of the Police Force should be housed together, so that they can be easily and efficiently deployed at short notice, but the present state of police housing is bad both in quality and quantity. It is for this reason that most of the capital expenditure planned for the Police programme during the next five years will be on housing, although some on-going projects will be continued and completed during the Plan period.

DEVELOPMENT EXPENDITURE—POLICE

Table 21.1 — *K*£'000

Project	1969/70	1970/71	1971/72	1972/73	1973/74	Total
POLICE FORCE HEADQUARTERS						
Police Hq. Depot and Lines ..	18·0	40·0	45·0	50·0	61·9	214·9
Institutional Housing.. ..	10·0	10·0	10·0	10·0	10·0	50·0
Housing for Presidential Escort Section	4·6	—	—	—	—	4·6
NAIROBI AREA						
Karen Police Lines	—	—	30·0	—	—	30·0
Spring Valley Police Lines ..	—	—	—	30·0	—	30·0
Kabete Police Station ..	—	—	—	—	20·0	20·0
CENTRAL PROVINCE						
Fort Hall Div. Hq. and lines ..	10·0	20·0	20·0	—	—	50·0
Kiambu Div. Hq. and lines ..	1·0	—	—	—	—	1·0
Sagana Police Lines	—	—	—	—	18·0	18·0
Nyeri Vehicle Inspection Centre	8·0	—	—	—	—	8·0
RIFT VALLEY PROVINCE						
Lokitaug Police Lines ..	20·0	15·0	—	—	—	35·0
Nakuru Police Lines	—	20·0	30·0	45·0	75·0	170·0
Nanyuki Police Lines.. ..	—	—	—	25·0	—	25·0
Eldoret Vehicle Inspection Centre	8·0	—	—	—	—	8·0
EASTERN PROVINCE						
Meru Police Lines	27·5	—	—	—	—	27·5
Embu Prov. Div. Hq. and Lines..	10·0	40·0	—	—	—	50·0
COAST PROVINCE						
Witu Police Station and Lines	20·0	10·0	—	—	—	30·0
Voi Div. Hq. and Lines ..	10·0	30·0	—	—	—	40·0
NYANZA PROVINCE						
Kisii Police Lines	—	—	10·0	15·0	15·0	40·0
Homa Bay Div. and Station	7·5	—	—	—	—	7·5

Table 21.1 (*Contd.*) K£'000

Project	1969/70	1970/71	1971/72	1972/73	1973/74	Total
NORTH-EASTERN PROVINCE						
Wajir Police Lines	15·0	25·0	30·0	—	—	70·0
Garissa Police Lines	—	10·0	20·0	—	—	30·0
WESTERN PROVINCE						
Kakamega Div. Hq. Station and Lines	—	5·0	25·0	25·0	—	55·0
STOCK THEFT UNIT						
Gilgil—(Housing and Bridge)	30·0	10·0	20·0	30·0	—	90·0
GENERAL SERVICE UNIT						
Molo—Rift Valley Coys ..	20·0	35·0	—	—	—	55·0
Nairobi Hq. and Housing ..	40·0	265·0	385·0	430·0	210·0	1,330·0
Embakasi—G.S.U. Training Camp	—	—	6·6	—	—	6·6
C.I.D.						
Nairobi Dog Section Staff Housing and Kennels ..	—	—	10·0	15·0	25·0	50·0
Training School (Nairobi) ..	—	20·0	40·0	40·0	50·0	150·0
KENYA POLICE COLLEGE						
Junior Staff Housing	20·0	5·0	5·0	5·0	10·0	45·0
Canteen and Services ..	—	—	10·0	10·0	10·0	30·0
BORDER CONTROL POST						
Uganda/Tanzania border ..	10·0	10·0	—	—	—	20·0
TRANSPORT BRANCH						
Driving School Skid-Pan ..	5·0	11·5	—	—	—	16·5
Narok Div. Workshops ..	—	—	5·0	—	—	5·0
Molo Div. Workshops ..	—	—	5·0	—	—	5·0
Kajiado Div. Workshops ..	—	—	—	4·0	—	4·0
Kisii Div. Workshops ..	—	—	—	10·0	—	10·0
MOBILE RADIO EQUIPMENT ..	—	334·6	—	—	—	334·6
MISCELLANEOUS	5·0	—	—	—	—	5·0
Total	299·6	916·1	706·6	744·0	504·9	3,171·2

Immigration

21.3. During the past three years, the Immigration Department has been extending controls on the borders between Kenya and Uganda, and Kenya and Tanzania. Most of the major roads of access now have immigration control posts manned by men of the Department and supported by detachments of the Kenya Police. In order to complete this programme, it is necessary to provide five additional border control posts. Firstly, a border post is required at Keekorok on the Kenya/Tanzania border to deal with increasing tourist traffic on the Keekorok-Manyara-Ngorongoro circuits. Secondly, the increasing traffic between North-Western Kenya and North-Eastern Uganda has now reached magnitudes which make the provision of a border post at Lwakhaka absolutely necessary. Thirdly, when the Nairobi-Addis Ababa Road, which is currently under construction, is completed, a border post will be required at Moyale. Finally, two more posts will be needed at Kiunga and Mandera. All these posts will be constructed during the Plan period. The expenditure involved is shown in the table below:—

Table 21.2 *K£'000*

	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Keekorok ..	15·0	—	—	—	—	15·0
Lwakhaka ..	32·0	—	—	—	—	32·0
Kiunga	—	15·0	—	—	—	15·0
Mandera	—	35·0	—	—	—	35·0
Moyale	—	—	51·0	—	—	51·0
Total ..	47·0	50·0	51·0	—	—	148·0

Prisons

21.4. The development programme for Prisons is closely related to the number of prisoners who have to be accommodated, trained and rehabilitated. The number of prisoners has been increasing steadily in recent years but prison facilities have not been expanding at a commensurate rate, and the prisons are now seriously overcrowded. Such overcrowding represents a risk not only to prisoners' health but a risk for their security. At the same time, Government has found it necessary to raise the penalties for criminal offences, causing longer prison sentences than hitherto. The implication of this is that the prison population is expected to increase further during the Plan period. The provision of additional prison facilities has, therefore, become imperative if overcrowding is to be alleviated. The existing prison establishments also need improvement as many of them were built of temporary materials and have gone beyond the stage of economic repair and are in consequence insecure and difficult to guard.

21.5. The training offered in prison industries covers such trades as carpentry, tailoring, metal-work, shoe-making, mat-making, etc. These industries are designed to provide prisoners with skills which will enable them to secure employment after their release. They also provide revenue to the Government in the form of sales of prison produce. Revenue earned from prison industries activities in 1968/69 will amount to some K£240,000, and this figure is expected to increase progressively throughout the Plan period. It is Government policy to insist that Government ministries should place their orders with the prison industries for those goods which they require and which are produced by the prisons.

21.6. Apart from the activities of the prison industries, it is the policy of the Government to have each prison, however small, running a farm on which vegetables are grown for feeding prisoners. In 1967/68 the farms yielded some K£38,000 in revenue from the sale of farm produce, and in 1968/69 K£50,000. Earnings from farm produce will continue to rise over the Plan period as productivity increases which will assist in defraying costs.

21.7. In the course of training as masons and carpenters, prisoners carry out the construction and maintenance of prison buildings and staff houses, causing significant savings in building and maintenance costs. In addition to the technical training which prisoners receive during their prison terms, they can also take advantage of education courses of a more academic nature and illiterate prisoners are encouraged to enrol. Those who enrol in these courses receive certificates on discharge indicating that they are able to read and write. The better-educated prisoners are encouraged to undertake correspondence courses designed to prepare them for the East African Crtificate of Education and higher examinations. It is intended to strengthen these courses by employing more qualified teachers during the Plan period.

21.8. In addition to work already in progress, the project programme for prisoners for the next five years is:—

(i) *New Remand Prison, Kisumu.*—The existing Kisumu prison is old and dilapidated and occupies a valuable site in the centre of the town. The Kisumu Municipal Council has for a long time been pressing for the removal of the prison to a new site and work has already started on the construction of new buildings. During the Plan period, K£60,000 will be required to complete the work.

(ii) *Capital Remand Blocks.*—It has become necessary to provide capital remand blocks to accommodate, apart from ordinary prisoners, persons accused of murder. The construction work, which is expected to cost K£5,500, will be carried out by prison labour.

(iii) *Extra-Mural Penal Employment Camps.*—These camps are designed to provide accommodation for minor offenders and short sentence prisoners. They are required in order to relieve the main prisons of over-crowding. The camps will be built on prison farms so that the prisoners can be deployed in farming. They will require an estimated expenditure of K£10,500.

(iv) *Shimo-la-Tewa Prison—Sewage System.*—The existing sewage system has become inadequate for the present number of staff and prisoners to the extent of constituting a potential health hazard not only to the prison but also to the surrounding population. A new sewage system estimated to cost K£10,000 will be constructed during the Plan period.

(v) *Prison Industries Workshops.*—As a result of the rapid expansion of prison industries, it will be necessary to provide more workshops in the course of the next five years to cope with increasing orders for prison-made articles. A sum of K£10,000 will be required for the construction of five workshops.

(vi) *Prison Farm Produce Stores.*—Prison farm production has been on the increase and this trend is expected to continue during the Plan period. Additional stores for the preservation of extra farm produce must be provided. Four stores will be built at an estimated cost of K£11,000.

(vii) *Cell Blocks at Galole and Meru Women's Prisons.*—These prisons have no cell accommodation at present for segregation of certain prisoners. Cells will, therefore, have to be provided at a cost of K£3,500.

(viii) *Miscellaneous Projects.*—A sum of K£10,000 has been provided to meet the construction of contingent projects, mainly of a security and health nature.

(ix) *Staff Housing.*—At present the majority of prison staff live in temporary quarters. Moreover, junior officers and their families are sharing quarters which causes friction and adversely affects the officers' morale. There are some prisons where prisoners are better accommodated than their warders. Improved staff houses are needed in order to maintain discipline and high morale, which are essential for the Prison Service and internal security as a whole. During the Plan period K£1,000,000 will be spent on the provision of such housing.

DEVELOPMENT EXPENDITURE—PRISONS

Table 21.3 K£'000

Project	1969/70	1970/71	1971/72	1972/73	1973/74	Total
New Remand Prison, Kisumu ..	30·0	30·0	—	—	—	60·0
Capital Remand Blocks, various Prisons	—	—	5·5	—	—	5·5
Extra-Mural Penal Employment Camps/Short Sentence Prisons	3·5	3·5	3·5	—	—	10·5
Shimo-la-Tewa Prison—Sewage System	—	—	10·0	—	—	10·0
Prison Industries Workshops ..	2·0	2·0	2·0	2·0	2·0	10·0
Prison Farm Produce Stores ..	3·0	2·0	2·0	2·0	2·0	11·0
Cell Blocks at Galole and Meru prisons	—	—	3·5	—	—	3·5
Miscellaneous Projects	10·3	7·0	7·0	7·0	7·0	38·3
Staff Housing	150·0	200·0	200·0	225·0	225·0	1,000·0
Maximum Security Prison Naivasha	5·0	—	—	—	—	5·0
Naivasha Prison–Equipment and machinery	75·0	—	—	—	—	75·0
Purchase of farm land	12·0	—	—	—	—	12·0
Total	290·8	244·5	233·5	236·0	236·0	1,240·8

Approved Schools

21.9. With progressive industrialization, urbanization and social changes, delinquency among juveniles of both sexes is bound to increase. Remedial measures are, therefore, required to prevent the delinquents from returning to crime. At the moment, there are limited reformatory and remand home facilities, while psychological treatment for the delinquents is lacking. Additional facilities are required for detention, vocational training and rehabilitation of the juvenile delinquents. It is the policy of the Government to place emphasis on corrective measures in addition to providing the normal facilities such as boards, residence, general literacy education and discipline in Approved Schools and Remand Homes.

21.10. The two types of Approved Schools, namely, the Junior School and the Senior School, will continue to offer formal academic education—up to Certificate of Primary Education level in the former and vocational training in the latter institutions. Agriculture, building, tailoring, shoe-making, painting and spray-painting, motor mechanics, carpentry and metal-work will continue to form the major part of vocational training in all the Senior Approved Schools. Earnings from the activities of these schools amount to some K£6,000 annually and this figure is expected to be maintained or even exceeded during the Plan period.

21.11. There are at the moment only eight Approved Schools and nine Remand Homes in the whole country with a daily average population of approximately 910 and 160 juveniles respectively, and the existing facilities are inadequate to accommodate all the deserving cases.

21.12. In order to contain the growing pressure for providing rehabilitation and correction facilities for juvenile delinquents, it will be necessary to spend some K£52,400 on various remand projects over the next five years.

DEVELOPMENT EXPENDITURE—APPROVED SCHOOLS AND REMAND HOMES

Table 21.4 *K£'000*

Project	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Staff Housing	6·0	2·6	2·0	—	—	10·6
Improvement to Existing Premises	1·0	0·4	0·5	0·5	—	2·4
Approved School and Juvenile Remand Home, Coast Province	5·0	2·0	3·0	—	—	10·0
Juvenile Remand Home, Kericho	12·0	—	—	—	—	12·0
Juvenile Remand Home, Kisii ..	—	—	—	—	5·0	5·0
Approved School for Girls, Rift Valley Province	—	—	—	2·5	2·5	5·0
Children's Home, Nairobi ..	—	—	—	2·5	2·5	5·0
Kabete Irrigation Plant ..	2·4	—	—	—	—	2·4
TOTAL	26·4	5·0	5·5	5·5	10·0	52·4

Probation Services

21.13. The only two existing probation hostels in Nairobi and Mombasa are used for the exclusive accommodation of males: there is no hostel for female probationers. This means that female probationers who require closer and stricter supervision cannot be accommodated in a place suitable for supervision by Probation Officers and it has been the practice to send women to prison who would have been placed on probation if a female hostel had been available. It has, therefore, been decided to spend K£12,500 in 1970/71 on the construction of a female hostel at Nakuru.

Defence

21.14. No country's resources can be fully developed unless its Armed Forces are adequate to ensure its territorial integrity and sovereignty. The Armed Forces also assist the Police in the preservation of internal security when necessary. It is not considered necessary, however, to build up massive and unnecessarily large Armed Forces which are extravagant and a wasteful drain on the country's scarce economic resources. The ideal is a small force, highly trained in the use of modern weapons, equipment and techniques. Above all the forces must be unswervingly loyal to the Government.

21.15. The plan for the Armed Forces is based on the assumption that they remain at about their present strengths, and with equipment such as aircraft and ships at the present levels. Any pronounced change would require additional development finance. The main problem concerning the Armed Forces has been and still is the provision of working and living accommodation. This accounts for the high proportion of housing in the Defence programme for the next five years.

21.16. As far as the army is concerned, there is barely enough living accommodation and all the quarters for married Servicemen are of the old one- or two-roomed type. It is only due to the fact that, hitherto, a part of the army's strength has always been deployed in the North-Eastern Province and adjacent districts on internal security duties that the Servicemen back at normal locations have been housed at all. With the relaxation of the operations in the North-East of Kenya, it is unnecessary and uneconomical to maintain large garrisons there, but the withdrawal of troops to normal peacetime stations has greatly accentuated the shortage of accommodation. Servicemen have to be housed in barracks, and married men cannot be separated for too long from their families because of lack of accommodation without their morale suffering. A discontented soldier is a bad soldier. There is, therefore, a heavy programme of providing living accommodation.

21.17. Apart from living accommodation for officers and servicemen, expansion has resulted in a requirement for additional working accommodation such as unit and sub-unit headquarters and stores, instructional classrooms, workshops, garages, parade grounds, armouries and magazines. These essential requirements have taken priority over the provision of living accommodation and indeed, at certain locations, living accommodation has had to be converted into working accommodation.

21.18. The Kenya Air Force took over most of the operational facilities they needed at Eastleigh Aerodrome, although the runway had to be bituminized. There was also adequate accommodation for married officers, and for single officers and airmen, but there was not one single quarter for married airmen. A phased building programme has now been started, but it will take a number of years to complete.

21.19. The Naval base at Mtongwe was originally an armament depot, with many magazines, bunkers, storage sheds, workshops, and jetties adequate for unloading ammunition, but with none of the facilities for an operational Navy, and with living accommodation only for the police guard and some fourteen married officers. The remainder of the working staff, consisting of a small number of civilians, made their own accommodation arrangements, mostly across the channel on Mombasa Island, and came to work on the mainland daily. The first task was to provide living accommodation for the recruits —all single men—then instructional facilities. The main jetty is being adapted to its new operational use but a wardroom and headquarters offices have been extemporized. There were virtually no quarters for married servicemen and a building programme is in hand to provide these. However, a great deal of work remains to be completed before the Navy can have all the operational and domestic facilities that are essential to its smooth functioning.

21.20. An Armed Forces Headquarters building will be constructed during the Plan. In consequence, it will be necessary to construct a permanent mess building and single officers' quarters for the Defence Headquarters. The present building dates from the Second World War, and is of temporary construction, being extremely expensive to maintain and of inadequate security.

21.21. The need for a separate hospital to cater for the security forces has become apparent and it has been decided to appeal to the public for voluntary donations to build it. The hospital, which will be about 200 beds, is estimated to cost about K£144,000, to be provided by voluntary subscriptions, and the cost of housing the staff and providing the equipment, at a cost of about K£70,000 will be borne by the Government.

DEVELOPMENT EXPENDITURE—DEFENCE

Table 21.5 *K£'000*

Project	1969/70	1970/71	1971/72	1972/73	1973/74	Total
Works and Buildings for the Armed Forces..	343·9	300·0	300·0	300·0	300·0	1,543·9

Government Chemist

21.22. The Department of the Government Chemist is responsible for carrying out chemical analyses and advising Government ministries, statutory boards, corporations of the East African Community, commercial concerns and private individuals on chemistry matters. The functions of the department have, however, been constrained by inadequate buildings and equipment. Improvements to buildings costing K£4,700 have been provided for while it is planned to spend a sum of K£8,970 on the purchase of equipment.

DEVELOPMENT EXPENDITURE—GOVERNMENT CHEMIST

Table 21.6 *K£*

PROJECT	1969/70	1970/71	1971/72	1972/73	1973/74	TOTAL
Improvements to existing buildings	1,000	900	2,800	—	—	4,700
Modern Equipment	3,500	4,720	350	400	—	8,970
TOTAL	4,500	5,620	3,150	400	—	13,670

The Judiciary

21.23. The Judicial Department is in great need of improved accommodation in both urban and rural areas. The development programme for the Department consists of new court buildings, extensions to existing court buildings, and institutional housing.

21.24. At Machakos, Kisii, Thika, Fort Hall and Kericho the Judicial Department occupies accommodation urgently required by the Provincial Administration and new court buildings will be provided in these towns. At Nyeri and Kitale the existing court buildings are badly overcrowded, and a sum of K£190,000 will be spent during the Plan period on new court buildings.

21.25. The existing Law Courts buildings in Nairobi and Mombasa were built many years ago when the business of the Judicial Department was small compared with now. The court building in Nairobi is overcrowded and has no cell accommodation, while the Mombasa building, apart from being overcrowded, is old, dilapidated and unsuitable for criminal court cases. In Nairobi a new court building costing K£45,000 will be built for use by magistrates dealing with traffic, juvenile and general criminal cases. This new building will then release additional accommodation in the existing building for use by the High Court judges, civil magistrates, the Court of Appeal for Eastern Africa and the general administration of the Judicial Department. A new court will also be built in Mombasa at a cost of K£45,000.

21.26. On 1st August, 1967, the former African Courts were replaced by District Magistrate's Courts by Act of Parliament. Many of the former African Court buildings were temporary structures built of mud and wattle or sun-dried bricks, while in some places cases were heard under a tree due to lack of court buildings. It is estimated that about K£95,000 will be required during the Plan period to provide new court buildings in rural areas.

21.27. Some of the existing court buildings, aside from Nairobi and Mombasa courts, are so small that they can hardly accommodate the present staff. Extensions will be made to such buildings during the next five years at an estimated cost of K£27,000.

21.28. At many rural court centres, there are no houses for either magistrates or clerical staff. There is, therefore, a great need to provide staff housing at these centres, and a sum of K£98,000 has been provided in the Plan for this purpose.

DEVELOPMENT EXPENDITURE—THE JUDICIARY

Table 21.7 *K*£'000

PROJECT	1969/70	1970/71	1971/72	1972/73	1973/74	TOTAL
Urban Court buildings	36	50	50	50	4	190
Criminal Court building, Nairobi	—	10	10	10	15	45
Criminal Court building, Mombasa	—	10	—	—	35	45
Rural Court buildings	40	25	25	5	—	95
Extensions to existing Court buildings	—	—	—	10	17	27
Institutional housing	—	10	20	30	38	98
TOTAL	76	105	105	105	109	500

CHAPTER 22—FINANCIAL INSTITUTIONS

Introduction

The country already has quite a highly diversified financial system. Most major institutions have evolved through the normal process of market pressure, although others have been set up by the Government to fill gaps in the financial system that have become apparent. The urgency of development is so great that the need for specialized institutions for the collection of savings and the financing of investment could not be left to the processes of slow evolution. The Government has, therefore, pursued a vigorous policy to extend savings facilities and to rectify the deficiencies in the loan facilities, and has found it necessary to enter the fields of commercial banking, housing finance, insurance, and the provision of development finance for all major sectors of the economy. The establishment of the National Social Security Fund represents a significant landmark in the Government policy of encouraging domestic savings. The Plan provides for substantial Government loans to the public financial institutions.

22.2. The Government has supplemented the commercial banking facilities by establishing the National Bank of Kenya Ltd., and by assisting the co-operatives to establish the Co-operative Bank of Kenya Ltd. The Post Office Savings Bank and Cereals and Sugar Finance Corporation, both of which are publicly owned, also provide savings facilities. The Housing Finance Company of Kenya Ltd., was created to supplement the limited supply of housing finance available from building societies. The Government's desire to set up an insurance company in which it had a major share and which entered the whole field of insurance business resulted in the promotion of the Kenya National Assurance Company Ltd. The Government proposes to establish two new institutions—the State Reinsurance Corporation of Kenya and Workers' Investment Trust—over the Plan period.

22.3. Before Independence, there were only two major public institutions for the provision of development finance—the Land and Agricultural Bank and Industrial Development Corporation. Since Independence, a number of development finance institutions have been set up. The main reason for this is the commercial banks' concentration on short-term finance and the resulting shortage of development finance. One or more of the following factors have, however, also been important in individual cases: (i) the desirability of accompanying extension services with capital; (ii) the need to undertake joint projects with overseas investors in order to attract foreign capital and expertise; and (iii) Kenyanization of the major sectors of the economy. The major public institutions currently responsible for the provision of development finance are the Agricultural Finance Corporation, Industrial and Commercial Development Corporation, Development Finance Company of Kenya Ltd., and Kenya Tourist Development Corporation.

22.4. Another important feature of Government policy has been the introduction of measures aimed at increasing its control over the financial system. The establishment of the Central Bank of Kenya and the introduction of the Banking Act, 1968, have greatly extended the Government's ability to ensure that financial institutions pursue policies that conform to its overall economic strategy. Further, the considerable expansion that has been planned in the operations of the public financial institutions will increase the share of these institutions in the total financial transactions in the country and thus enable them to influence the behaviour of private financial institutions through their policies.

22.5. The last few years have been characterized by the establishment of a number of new public financial institutions. The emphasis in the current Plan period will be on the consolidation and growth of the existing institutions.

Central Bank

22.6. The Central Bank, which commenced operations in September, 1966, stands at the apex of the financial system. The principal objects of the Bank are to issue notes and coins, to assist in the development and maintenance of a sound monetary, credit and banking system conducive to the orderly and balanced economic development of the country and the stability of the currency, and to serve as banker and adviser to the Government. The importance of the Bank in the economic life of the country is best brought out by considering its relationships with the Government and financial institutions.

22.7. The Bank acts as banker to the Government and as the custodian of the nation's foreign exchange reserves, and is responsible for the administration of the Exchange Control Regulations and publicly-issued stock on the local market.

22.8. To enable it to pursue an effective monetary policy, the Bank has been provided with a wide range of instruments. Under the Central Bank of Kenya Act, 1966 and the Banking Act, 1968, the Bank can, *inter alia*:

(i) require each commercial bank to maintain a minimum deposit with it;

(ii) prescribe the minimum holdings of liquid assets which must be maintained by banks and other financial institutions;

(iii) regulate the rates of interest payable on deposits with banks and other financial institutions; and

(iv) control the level and pattern of advances granted by banks and other financial institutions.

22.9. The Bank provides varied facilities to commercial banks. It operates accounts for the banks and provides clearing facilities for inter-bank transactions. Through these means, and through the provision of crop finance, rediscounting of Treasury Bills and other borrowing facilities to the banks, the Central Bank has established itself as the bankers' bank and is in a position to act as lender of the last resort.

22.10. The implementation of the Plan will require an active monetary policy and the Central Bank will have an important role in the financing of the Plan. In particular, the Central Bank Act will be amended to raise the present ceiling on Central Bank lending to the Government if this becomes desirable in the interests of development.

Commercial Banks

22.11. Commercial banks not only play an important role in the mobilization of domestic savings, but also satisfy the bulk of the demand for short-term funds needed as working capital. The banks' operations are governed by the Banking Act, 1968, which provides for the licensing and inspection of the banks, and restricts the field within which the banks may lend. Another important aspect of the Act is the requirement that a bank incorporated outside Kenya keep within Kenya at all times, and out of its own funds, a capital assigned to its Kenya branches amounting to at least five per cent of its total local deposit liabilities.

22.12. The assets and liabilities of commercial banks as at 30th June, 1969 are shown in Table 22.1. Total deposits amounted to K£105 million of which time and savings deposits accounted for over 40 per cent. Deposits have tended to grow very rapidly, particularly after the imposition of exchange control against the rest of the Sterling Area outside the East African countries. The success of the banks in attracting deposits is based in part on the wide geographical coverage of their savings facilities, secured through a country-wide network of branches, sub-branches, agencies and mobile units. The banks will be expected to continue to expand their facilities over the Plan period, particularly in the rural areas.

22.13. The manner in which the banks deploy their resources is set out under the assets side of the balance sheet. Bills discounted, loans and advances amounted to K£67.7 million. The pattern of bank lending to private enterprises is shown in Table 22.2. It will be seen that trade, manufacturing and agriculture accounted for over 70 per cent of all bills discounted, loans and advances. The banks' holdings of public stock and Treasury Bills have reached about K£7.7 million. It is hoped that the banks will continue to assist the Government in its development effort. The banks' deposits with the Central Bank amounted to K£13 million; this high level reflects, in part, the Government policy of centralizing the banking system's foreign exchange reserves.

COMMERCIAL BANKS—ASSETS AND LIABILITIES AS AT 30TH JUNE 1969

Table 22.1 *K£'000*

LIABILITIES	
Deposits:	
Demand	61,520
Time	16,329
Savings	27,058
Balances due to:	
Central Bank	—
Kenya Banks	2,112
E.A. Banks	900
Banks Abroad	2,677
Bills Payable and Other Loans	620
Other Liabilities	31,762
ASSETS	
Cash	3,582
Balances due by:	
Central Bank	13,152
Kenya Banks	2,619
E.A. Banks	2,695
Banks Abroad	3,565
Treasury Bills	4,895
Bills Discounted, Loans and Advances	67,722
Investments	5,394
Other Assets	39,354
TOTAL ASSETS/LIABILITIES	142,978

22.14. Rapidly growing deposits and the failure of advances to keep pace with the deposits have brought about a relatively low advances/deposits ratio, which stood at 64.6 per cent in June, 1969. The Government is very concerned about the low level of banks' lending, and commercial banks will be urged to make every effort to increase the volume of their lending. The present high liquidity characterizing the banking system may, however, be temporary. A related problem is the need to divert a greater proportion of bank lending to citizens. In particular, credit extended to Africans by the banks is far too small both in relation to the total bank credit and the deposits held by Africans. Firm measures will be taken to improve the situation. However, an important factor hampering the growth of bank lending to the local people is the inability of a large proportion of citizens to meet the banks' collateral requirements. The situation should improve as the ownership of assets, and in particular registered land assets, by citizens increases. Meanwhile, the Government will consider the establishment of an institution, which would guarantee approved bank loans to citizens, as one of the possible measures for increasing the flow of credit to Africans.

22.15. There are three characteristics of commercial bank lending which explain in part the Government's initiative in the setting up of public institutions for the provision of credit. First, banks have traditionally used the bulk of their resources for making short-term loans. Some banks have, however, undertaken long-term lending through their development corporations. The supply of such finance as well as the supply of longer term accommodation granted by commercial banks themselves has been inadequate and is one of the reasons why such development finance institutions as the Development Finance Company of Kenya Ltd., Industrial and Commercial Development Corporation, Agricultural Finance Corporation and the Kenya Tourist Development Corporation were established. Second, a very small proportion of the total credit extended by the banks is directed towards the agricultural sector. It will be seen from Table 22.2 that out of the total loans outstanding of K£67.7 million at the end of June, 1969, agriculture accounted for only K£8.4 million. The inadequacy of bank finance for agriculture was the principal reason for the establishment of the Agricultural Finance Corporation and the Co-operative Bank of Kenya Ltd. Lastly, banks have a preference for large rather than small loans because of the high administrative costs associated with the latter. Given the large demand for small loans in relation to the supply, the Government has found it necessary to supplement the supply of funds for such loans through, for example, the Agricultural Finance Corporation and Trade Development Joint Boards.

COMMERCIAL BANKS—BILLS, LOANS AND ADVANCES AS AT 30TH JUNE 1969

Table 22.2 *K£'000*

PUBLIC SECTOR	
Government*	966
Commercial Statutory Boards and Other Public Entities	1,765
TOTAL PUBLIC SECTOR	2,731
PRIVATE ENTERPRISES	
Agriculture	8,377
Manufacturing	13,524
Building and Construction	1,950
Trade:	
Export	7,666
Import	8,841
Domestic	9,852
Transportation	1,207
Financial Institutions	4,014
Other Businesses	6,736
TOTAL PRIVATE ENTERPRISES	62,167
PRIVATE HOUSEHOLDS	2,824
TOTAL BILLS, LOANS AND ADVANCES	67,722

* Includes E.A. Community Institutions and Local Government.

22.16. The importance of commercial banking in the economic development of a country is so great that the responsibility for the provision of banking facilities will not be left wholly to expatriate banks. The Government has already taken steps to promote indigenous banking by entering the banking field directly through the National Bank of Kenya Ltd., and by assisting the co-operative societies to establish the Co-operative Bank of Kenya Ltd.

22.17. The Government-owned National Bank of Kenya, which provides a full range of commercial banking facilities, has made considerable progress in attracting deposits and implementing its objective of assisting Kenya businessmen and firms to increase their participation in the commercial and industrial sectors since its establishment in November, 1968. Substantial expansion is envisaged for the Bank over the Plan period, when it will enter branch-banking. With further progress, the Bank will be in a position to give a lead to other commercial banks in the adoption of lending policies that are more responsive to the needs of local enterprises.

22.18. The major objective of the Co-operative Bank is to strengthen the co-operative movement by making available deposit and credit facilities. The Bank's capital has been subscribed by primary co-operative societies, co-operative unions and country-wide co-operative organizations, and the Bank's facilities are also restricted to the co-operatives. All co-operatives will be required to maintain their banking accounts and deposit their funds with the Bank or the Bank's appointed agents. At present the Bank is concerned with the provision of short-term finance, but it might borrow development finance for relending at a future date. Through its crop finance facilities, the Bank will begin to fill an important gap so far as small-scale farmers are concerned, because most of the loans made by the Agricultural Finance Corporation to small-scale farmers are medium-term development loans.

Building Societies and Hire Purchase Companies

22.19. Private financial institutions, other than commercial banks and in particular building societies and hire purchase companies, make a significant contribution to the supply of credit as well as the collection of deposits. Table 22.3 gives the consolidated balance sheet of the building societies, hire purchase companies and other non-bank financial institutions. At the end of 1968, the deposits held with these institutions amounted to K£7.8 million, or about 8 per cent of the deposit liabilities of the commercial banks. Loans, mortgages, advances and investments amounted to K£9.9 million, which was equivalent to about 14 per cent of the commercial banks' total lending.

22.20. Given the importance of private non-bank financial institutions as savings and lending institutions, it may be necessary to bring them into the scope of monetary policy to make the latter fully effective. This is why the Central Bank of Kenya Act and Banking Act provide the Central Bank with regulatory powers in respect of these institutions.

22.21. The supply of housing finance from building societies and insurance companies in recent years has not kept pace with the demand for it. This

PRIVATE FINANCIAL INSTITUTIONS: CONSOLIDATED BALANCE SHEET 1968*

Table 22.3 K£'000

ASSETS	Hire Purchase	Building Societies	Other	Total
Cash and Bank Balances	499	1,019	82	1,600
Mortgages, Loans and Advances	5,831	2,916	98	8,845
Investments	—	999	49	1,048
Fixed Assets	28	60	46	135
Other	50	105	7	161
TOTAL	6,408	5,099	282	11,789
LIABILITIES				
Issued Capital and Reserves	1,089	1,109	35	2,233
Deposits†	3,824	3,767	228	7,819
Bank Loans and Overdrafts	584	120	11	715
Other Loans	599	30	5	634
Other	312	73	3	388
TOTAL	6,408	5,099	282	11,789

* Figures are end-December in most cases.

† Including share accounts with building societies.

made it necessary for the Government, which had previously provided finance primarily for low- and middle-cost housing, to provide some finance for high-cost housing for owner-occupation. It is for this reason that the Housing Finance Company of Kenya Ltd. (HFCK), was established in 1965. Initially, the company's operations were financed by the funds made available by the Government and the Commonwealth Development Corporation. In January, 1968, the assets and liabilities of the First Permanent were taken over by the HFCK and the company also started to accept deposits from the public. This step was taken to transform the HFCK into a strong national institution for the provision of housing finance and mobilization of savings for housing. The HFCK provides a wide range of deposit facilities. Its lending policy places considerable emphasis on the provision of finance for new construction. Substantial expansion in HFCK's operations is envisaged over the Plan period, details of which will be found in Chapter 19.

22.22. The absence of specific legislation relating to hire purchase transactions has resulted in the inclusion in many hire purchase agreements of provisions that are unduly onerous on the hirer. The Government has, therefore, introduced the Hire Purchase Act, 1968, which seeks to strike a balance between the conflicting interests of the hirer and owner. Among the measures aimed at protecting the hirer is the prescription of conditions under which the hirer may terminate or complete a hire purchase agreement, and the owner may repossess goods subject to hire purchase agreements. The Act also provides for the licensing of all hire purchase businesses and the registration of all hire purchase agreements with a Registry of Hire Purchase Agreements.

The Government as a Borrower

22.23. Many of the Government's functions are similar to those undertaken by financial institutions. It is convenient to discuss the instruments through which the Government borrows, and public institutions which borrow from, but do not lend to, the general public together. The Government will be an important borrower during the new Plan period, and consequently an important creator of savings instruments. The Government borrows from the private sector through the issue of stock, Treasury Bills, the acceptance of deposits at the Cereals and Sugar Finance Corporation and the Post Office Savings Bank and the issue of tax reserve certificates.

22.24. *Government Stock.*—The Government satisfied the bulk of its domestic borrowing requirements in the past through the issue of stock. It will be seen from Table 22.4 that the major public holder of stock is the National Social Security Fund, and the institutional investors such as insurance companies, banks and other companies are the major private holders of stock. These institutions are expected to continue their support of the stock issues over the Plan period and in particular the National Social Security Fund, which is expected to have a surplus of K£35 million, will invest a large proportion of its available funds in Government stock. The Fund is discussed in detail in Chapter 20. The Government will have large domestic borrowing requirements totalling K£65 million over the Plan period; the support of these institutions will, therefore, be of critical importance in the financing of the Plan.

ANALYSIS OF PUBLIC FUNDED DEBT (LOCAL ISSUES) AT BOOK VALUE BY HOLDERS AS AT 30TH JUNE 1969

Table 22.4

	K£'000
National Social Security Fund	13,516
Central Government	9,203*
Local Government	1,026
Kenya Post Office Savings Bank	2,114
East African Community Institutions	891
Other Public Sector	683
Central Bank of Kenya	3,510†
Commercial Banks	2,308
Insurance Companies	4,801
Other Companies	2,587
Private	601
Other East African	353
Other Sterling Area	1,710
Non-Sterling Area	42
TOTAL	43,345

* Sinking funds, pension funds, etc.

† These securities were taken over by the Central Bank from the East African Currency Board.

22.25. The most disappointing feature of the market for Government stock is the lack of interest on the part of private individuals in the Government stock as a savings instrument. Out of the total stock outstanding of about K£43 million at the end of June, 1969, only K£0.6 million was held by private individuals and non-corporate bodies. There may be a variety of reasons for the low holdings by private individuals. One reason may be the narrowness of the market for the stock. This cannot, however, be a major reason since the Government maintains a support fund which is ready to buy stocks from individuals at prices which are regularly fixed if there is no other buyer in the market. Another and a related reason may be the unwillingness of the investing individual to accept the possibility of a capital loss which may arise if the stock is realized before maturity. Last but not least, in contrast to the situation in other countries, the yield on first-class equities is higher than the yield on Government stocks despite the fact that investment in equities offers considerable prospects of making capital gains; this peculiarity of the local money market may be a further reason for the unattractiveness of the Government stock for the individual. The Government has examined the possibility of introducing savings bonds, which would be free of some of the possible defects of the Government stock as a savings instrument for the individual, but the administrative cost of borrowing through savings bonds has been found to be very high.

22.26. *Treasury Bills.*—Treasury Bills were first issued in March, 1969. The response of the banking system to the Treasury Bill issues has been very good. The commercial banks' holdings of Treasury Bills amounted to K£4.89 million as at 30th June, 1969. As one of the main reasons for the introduction of the Treasury Bills was to promote a money market in Kenya, the tender system of issue, which leaves the determination of the rate of interest to the market, is used. Besides contributing to the growth of the money market and flexibility of monetary policy, the Treasury Bills enable the Government to raise sizeable short-term funds at fairly low rates. An increasing use of this credit instrument will be made during the Plan period.

22.27. *Cereals and Sugar Finance Corporation.*—Apart from Treasury Bills, the Cereals and Sugar Finance Corporation is the main vehicle through which the Government borrows short-term funds. The Corporation provides finance to the Government and to Government agents for the purchase of sugar from overseas, maize and wheat, and for planting advances to cereals farmers. Now that the country's requirements of sugar are met almost entirely from Kenya and Uganda, the amount of money needed for this purpose has decreased, but with higher maize and wheat crops the Corporation has had to obtain authority to increase its borrowings to a ceiling of K£13 million in order to be able to meet the requirements of the Maize and Produce Board, Wheat Board and Agricultural Finance Corporation and the Kenya Farmers Association. The Corporation has been very successful in attracting short-term funds; its deposit liabilities as at 30th June, 1969 amounted to K£7.98 million.

22.28. *Post Office Savings Bank.*—The Post Office Savings Bank with its wide geographical coverage, is the major institution available to the Government for the inculcation of the savings habit on the mass of the population and the mobilization of small savings.

22.29. The deposits with the Bank have remained static in recent years, despite the fact that the number of depositors' accounts has been growing rapidly. The deposits with Bank as at 31st December, 1968, amounted to K£5 million. The Government has taken a number of steps to encourage a greater use of the facilities provided by the Bank, and to encourage the use of Post Office Savings Bank accounts as savings rather than current accounts. The rate of interest has been increased recently from 2½ to 3 per cent. Further, withdrawals that would take the balance below Sh. 40 are no longer permitted and the minimum balance on which interest is paid has been raised from Sh. 20 to Sh. 40.

22.30. *Tax Reserve Certificates.*—Tax Reserve Certificates may be used to discharge the liability to income tax, surtax and corporation tax. The certificates outstanding as at 30th June, 1969, amounted to K£3.17 million. The increase in the value of the certificates outstanding has not kept pace with the growth in tax liability. This is surprising in view of the fact that a tax-free rate of interest of 4 per cent per annum gives a high effective return to the surtax payers and companies. The dates for the payment of taxes have been brought forward recently; this measure may affect the future growth of demand for these certificates, although it is in the interests of companies and individuals to keep up-to-date with their liabilities in a manner which gives them a satisfactory tax-free return.

22.31. These savings facilities as well as others provided by public financial institutions reflect the importance the Government attaches to the growth of domestic savings. The Plan is based on the assumption that gross national savings as a percentage of GNP will rise from 17.6 per cent in 1967 to 19.8 per cent in 1974. In order to realize the Plan target, savings facilities will be kept under continuous review to ensure the availability of diversified facilities to meet the varied needs of the investor, institutional as well as private.

Public Institutions for Development Finance

22.32. Agricultural credit for farmers from public sources is provided through the Agricultural Finance Corporation, Settlement Fund Trustees and Kenya Tea Development Authority. The policies pursued by these institutions as well as their financial requirements over the Plan period have been discussed in Chapter 8.

22.33. A major problem in the field of agricultural credit is the inadequacy of the credit available to the small-scale farmers. It is estimated that so far only about 5 to 6 per cent of Kenya's small-scale farmers have been able to obtain credit from the public credit agencies. The Government is exploring all possible ways of rectifying the situation, and has set up a working party to make recommendations on rural credit. The Agricultural Finance Corporation has experienced difficulties in administering credit for small-scale farmers because of the high administrative costs involved and poor repayments performance. In this connexion, it may be mentioned that the establishment of the Co-operative Bank could prove to be an important development as far as short-term credit to small-scale farmers is concerned, since by making loans to co-operative societies and unions rather than to individual farmers and by collecting repayments automatically as payments for the sale of farm produce are received in the co-operative societies' accounts, the Bank can both keep down administrative costs and improve the repayments situation.

22.34. Public funds for industrial and commercial enterprises are provided through the Development Finance Company of Kenya Ltd. (DFCK), Industrial and Commercial Development Corporation (ICDC) and Trade Development Joint Boards. The DFCK's share capital is subscribed by the ICDC (on behalf of the Government), Commonwealth Development Corporation, Deutsche Gesellschaft fur Wirtschaftliche Zusammenarbeit (Entwicklungsgesellschaft) mbH and Nederlandse Overzeese Financierings—Maatschappij N.V. The ICDC is, however, owned wholly by the Government. There is no clear line of demarcation between the functions of the ICDC and DFCK. In broad terms, the ICDC's emphasis is on projects which require not only financial participation but also active extension services; these are normally small and medium-scale projects. The larger projects are, therefore, more likely to be handled by the DFCK. Trade Development Joint Boards provide loan facilities for amounts that fall below the ICDC's minimum financial participation. The ICDC, DFCK and Trade Development Joint Boards are discussed in detail in Chapters 10 and 15, which also set out their financial requirements.

22.35. The Kenya Tourist Development Corporation (KTDC) participates financially with the private sector to develop tourism. Although the corporation's terms of reference allow it to participate in almost all economic activities related to tourism, its main emphasis is on the development of new hotel and lodge accommodation. The KTDC is discussed in greater detail in Chapter 16.

22.36. The East African Development Bank is one of the institutions established under the Treaty for East African Co-operation. The Bank opened its doors for business on 1st July, 1968, or just over six months after the coming into effect of the Treaty. The Bank is required to give priority to industrial development in the relatively less industrially developed partner states and to finance, whenever possible, projects designed to make the economies of the partner states increasingly complementary in the industrial field. While the Treaty provides that the three founder members should hold a majority of the equity capital of the Bank, it is hoped that financial institutions both within and outside the Community will also contribute to the Bank's