REPUBLIC OF KENYA

National Development Plan 1997–2001

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THE EIGHTH

NATIONAL DEVELOPMENT PLAN

FOR THE PERIOD 1997 TO 2001

This Plan covers the
first phase of the Sessional Paper on
Industrial Transformation to the Year 2020

FOREWORD

It is indeed my great pleasure to say a few words on this 8th National Development Plan covering the period 1997-2001. Coming on our 33rd Independence anniversary, this Plan provides a fitting and timely milestone in terms of new economic policies to steer our future development course. At the same time, the Plan provides the nation with a solid launching pad which we, Kenyans, will use to proudly and confidently make our first steps into the 21st Century.

Kenyans will remember that in February 1996 I launched the *Policy Framework Paper* on Economic Reforms which detailed major economic policy initiatives covering the next two years. Further to this, Sessional Paper No.2 of 1996 on *Industrial Transformation to the Year 2020* clearly details policies which lay the foundation for structural transformation of the country into a Newly Industrialising Country (NIC) within the next twenty four years.

This 8th National Development Plan departs from tradition by focussing its attention on industrialisation as a strategy for achieving rapid and sustained economic growth. The theme of the Plan is *Rapid Industrialisation for Sustained Development*. This theme aptly reflects our commitment to alleviating the twin challenges of poverty and unemployment through an integrated approach. All sectors of the economy will be expected to play a complementary role in contributing to high productivity in the industrial sector by increasing their own productivity and efficiency of utilisation of available resources.

The successful implementation of the Plan will only be achieved through the joint efforts of Kenyans from all walks of life. The private sector will be expected to play a leading role by taking advantage of the tremendous opportunities that the Government has offered through the policies and strategies articulated in this Plan.

The Plan calls for hard work, dedication and sacrifice from all Kenyans to increase savings to enable us obtain our noble goals. On its part, the Government will equally play its role by strengthening its institutional capacity, maintaining peace and security, protecting the environment and by facilitating the participation of all Wananchi and investors, both foreign and local, in the development of our country. I have confidence that we have the capacity to achieve our goals through cooperation.

As I have said on many occasions, we cannot expect outsiders to develop this country on our behalf. Rather, we are all jointly responsible for our national development as we are the masters of our destiny. We must do this in the spirit of *Harambee* and within the *Nyayo* philosophy of *Peace, Love and Unity*.

DANIEL TOROITICH ARAP MOI, C.G.H., M.P.,
PRESIDENT OF THE REPUBLIC OF KENYA.

PREFACE

BY

HONOURABLE PROFESSOR GEORGE SAITOTI, E.G.H., M.P., THE VICE PRESIDENT AND MINISTER FOR PLANNING AND NATIONAL DEVELOPMENT

This 8th National Development Plan for the period 1997 to 2001, lays the foundation for the transformation of Kenya from an economy with agriculture as its back-borne to a newly industrialised country (NIC) by 2020. Indeed, the Plan is the first one in the series to implement policies and strategies in Sessional Paper No.2 of 1996 on **Industrial** *Transformation to the Year 2020*. The strategy adopted in this Plan is to rely on Agriculture and Industry as twin engines for faster economic growth.

This Plan is different from the previous ones in that it addresses one significant sectoral issue - industrialisation. For our economy to move to the status of an industrialising economy in a quarter of a century, Kenyans will have to raise the level of their annual saving capacity from the recent average of 17 per cent of Gross Domestic Product (GDP) to around 30 per cent annually. This will not be an easy task unless all Kenyans are irreversibly committed to achieve this objective of rapid industrialisation and accept greater sacrifices for well over a generation.

Previous development plans laid emphasis on what the Government could do to raise and sustain economic growth. This Plan shifts that emphasis to what the Government *must* do to facilitate the private sector to be able to invest more in productive activities. What this Plan attempts to do is to take deliberate measures to mobilise savings, maximise investments and create an enabling environment for the private sector to thrive. This will require a more responsive and efficient public sector.

Unemployment and poverty are still the twin challenges of our development. 11 million Kenyans live below the poverty line while almost 3 million are unemployed. Industrialisation provides the quickest avenue for generation of adequate employment opportunities and higher incomes. While the long term objective of the Government is to reduce poverty and unemployment, the youth and other disadvantaged members of the society will receive special attention. The National Youth Development Programme launched in December 1996 will enable the youth to initiate job-creating projects at the district level. At the same time, resources will be earmarked for the Social Dimensions of Development Programme, for those most adversely affected by the structural adjustment programmes.

Industrialisation is not the result of wishful thinking but requires total commitment at all levels. The Government must take the lead as the administrator and more as the facilitator and provider of an enabling environment for the private sector to invest more in the manufacturing sector. The private sector will be the key actor in the industrialisation strategy. It will be expected to invest prudently in the most profitable ventures, motivate the labour force and manufacture products of the highest quality and competitive enough for the world markets. The Government will go out of its way to ensure that the private sector will be successful.

This Plan has nine chapters covering the following areas: (i) an overview of the recent past economic performance and reasons for adopting an industrialisation strategy; (ii) macro-economic environment for industrialisation; (iii) agriculture and rural development; (iv) on agricultural primary industries and related raw materials; (v) physical infrastructure; (vi) human resource development and welfare policies; (vii) research and development; (viii) industrialisation support framework; and (ix) implementation framework.

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ACP	African Carribean and Pacific Countries
ADB	African Development Bank
ADR	American Depository Receipt
AEC	African Economic Community
AFC	Agriculture Finance Corporation
AG	Attorney General
AI	Artificial Insemination
AIDS	Acquired Immuno Deficiency Syndrome
AMSS	Automatic Message Switching System
ASAL	Arid and Semi Arid Lands
ASIP	Agricultural Sector Investment Programme
BOO	Build Operate Own
BOT	Build Operate Transfer
CBI	Cross Border Initiative
CBK	Central Bank of Kenya
CBS	Central Bureau of Statistics
CBOs	Community Based Organisations
CDA	Coast Development Authority
CEDCs	Children in Especially Difficult Circumstances
CEDS	Consulting Engineering and Design Services
CHE	Commission for Higher Education
CITC	Christian Industrial Training Centres
CMA	Capital Markets Authority
COMESA	Common Market for Eastern and Southern Africa
COTU	Central Organisation of Trade Unions
CPI	Consumer Price Index
CWS	Community Wildlife Services
DBK	Development Bank of Kenya
DDC	District Development Committee
DFIs	Development Finance Institutions
DIC	District Industrial Committee
DFRD	District Focus for Rural Development
DIDC	District Information and Documentation Centre
DIT	Directorate of Industrial Training
DPM	Directorate of Personnel Management
DRSRS	Department of Resource Surveys and Remote Sensing
DWT	Deadweight Tons
EAC	East African Co-operation
ECD	Early Childhood Development
EDSC	Engineering Development and Service Centre
EPC	Export Promotion Council
EPZ	Export Processing Zones
EPZA	Export Processing Zones Authority

ESA	European Space Agency
EU	European Union
FDI	Foreign Direct Investment
FKE	Federation of Kenyan Employers
FY	Financial Year
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GIS	Geographical Information Systems
GTI	Gilgil Telecommunication Industries
GWH	Gigawatt Hours
HELB	Higher Education Loans Board
HIV	Human Immuno-Deficiency Virus
HMPL	High and Medium Potential Lands
ICDC	Industrial and Commercial Development Corporation
IBRD	International Bank for Reconstruction and Development
IDB	Industrial Development Bank
IDA	International Development Assistance
IDL	Industrial Development Levy
IEK	Institute of Engineers of Kenya
IFRTD	International Forum for Rural Transport and Development
IGAD	Inter Governmental Authority on Development
IMD	Immigration Department
IMF	International Monetary Fund
IOR-ARC	Indian Ocean Rim Association for Regional Cooperation
IPC	Investment Promotion Centre
IPDB	Industrial Properties Development Bank
ITC	Industrial Training Centre
ITDG	Intermediate Technology Development Group
KAA	Kenya Airports Authority
KAM	Kenya Association of Manufacturers
KARI	Kenya Agricultural Research Institute
KASNEB	Kenya Accountants and Secretaries National Examination Board
KBC	Kenya Broadcasting Corporation
KCC	Kenya Cooperative Creameries
KCCT	Kenya College of Communications Technology
KCSE	Kenya Certificate of Secondary Education
KEBS	Kenya Bureau of Standards
KEFRI	Kenya Forestry Research Institute
KEMFRI	Kenya Marine and Fisheries Research Institute
KENDAT	Kenya Network of Draught Animal Technology
KENPAC	Kenya Packet Switching Data Communications
KENSIDOC	Kenya Scientific Information and Documentation Centre
KEPI	Kenya Expanded Programme on Immunisation
KETRI	Kenya Tripanosomiasis Research Institute
KEVEVAPI	Kenya Veterinary Vaccine Production Institute
KIBT	Kenya Institute of Business Training

KIC-K	Kisumu Innovation Centre - Kenya
KIE	Kenya Industrial Estates
KIE	Kenya Institute of Education
KIPO	Kenya Industrial Property Office
KIPPRA	Kenya Institute of Public Policy Research and Analysis
KIRDI	Kenya Industrial Research and Development Institute
KITI	Kenya Industrial Training Institute
KMRP	Kenya Municipal Reform Programme
KNAS	Kenya National Academy of Sciences
KNCCI	Kenya National Chamber of Commerce and Industry
KNEC	Kenya National Examination Council
KNH	Kenyatta National Hospital
KPA	Kenya Ports Authority
KPC	Kenya Pipeline Company
KPLC	Kenya Power and Lighting Company
KPTC	Kenya Posts and Telecommunications Corporation
KRA	Kenya Revenue Authority
KRC	Kenya Railway Corporation
KTB	Kenya Tourism Board
KTDA	Kenya Tea Development Authority
KUTIP	Kenya Urban Transport Infrastructure Project
KWS	Kenya Wildlife Services
LA	Local Authority
LDC	Less Developed Countries
LIS	Land Information System
LRMC	Long Run Marginal Cost
MDDS	Meteorological Data Distribution System
MFAIC	Ministry of Foreign Affairs and International Cooperation
MLRRWD	Ministry of Land Reclamation, Regional and Water Development
MALDM	Ministry of Agriculture, Livestock Development and Marketing
MCD	Ministry of Cooperative Development
MCI	Ministry of Commerce and Industry
MCSS	Ministry of Culture and Social Services
MEd	Ministry of Education
MOE	Ministry of Energy
MOF	Ministry of Finance
MENR	Ministry of Environment and Natural Resources
MHNA	Ministry of Home Affairs and National Heritage
MIB	Ministry of Information and Broadcasting
MOTC	Ministry of Transport and Communications
MLMD	Ministry of Labour and Manpower Development
MLG	Ministry of Local Government
MLS	Ministry of Lands and Settlement
MPWH	Ministry of Public Works and Housing
MRTTT	Ministry of Research, Technical Training and Technology

MUB	Manufacture Under Bond
MW	Mega Watts
NACHU	National Co-operative and Housing Union
NWCPC	National Water Conservation and Pipeline Corporation
NASCP	National AIDS and STD Control Programme
NBFI	Non Bank Financial Institutions
NCPB	National Cereals and Produce Board
NCST	National Council for Science and Technology.
NEAP	National Environment Action Plan
NFG	National Forum Group on Rural Transport
NGO	Non-Governmental Organisation
NHIF	National Hospital Insurance Fund
NIB	National Irrigation Board
NIC	Newly Industrializing Countries
NIDC	National Industrial Development Council
NIRF	National Industrial Research Fund
NMT	Non Motorised Transport
NOAA	National Oceanographic and Atmospheric Administration
NSE	Nairobi Stock Exchange
NSSF	National Social Security Fund
NYDP	National Youth Development Programme
NYS	National Youth Service
OM	Operations and Maintenance
OP	Office of the President
OVP&MPND	Office of the Vice President and Ministry of Planning and National Development
PEC	Presidential Economic Commission
PRIs	Public Research Institutions
PSIA	Programme Support Implementation Arrangement
PTA	Preferential Trade Area for Eastern and Southern Africa
PTA's	Parents Teachers Association
R&D	Research and Development
RCSMRS	Regional Centre for Surveying, Mapping and Remote Sensing
RDBMS	Related Data Base Management Systems
REE	Rare Earth Elements
REPO	Repurchase Agreement
RMLF	Road Maintenance Levy Fund
SACCO	Savings and Credit Cooperative Societies
SAP	Structural Adjustment Programme
SDD	Social Dimensions of Development
SMEs	Small and Medium Scale Enterprises
SSATP	Sub-Saharan Africa Transport Programme
SSJKE	Small Scale and Jua Kali Enterprises
T-Bill	Treasury Bill
TIIC	Trade and Industrial Information Centre
TINET	Trade Information Network

TMP	Tax Modernisation Programme
TOE	Tons of Oil Equivalent
TQM	Total Quality Management
TTI	Technical Training Institutes
UNCHS	United Nations Conference on Human Settlements
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Sceintific and Cultural Organisation
UNIDO	United Nations Industrial Development Organisation
VAT	Value Added Tax
WMES	Welfare Monitoring and Evaluation Survey
WTO	World Trade Organization
YPs	Youth Polytechnics

CHAPTER 1

DEVELOPMENT CHALLENGES AND PROSPECTS

1.0 INTRODUCTION

1.0.1 Since Independence in 1963 Kenya has endeavoured to improve the standard of living of her people. This aspiration has consistently been reflected in various Government policy documents such as the sessional papers and development plans. More specifically, the Sessional Paper No.10 of 1965 on *African Socialism and its Application to Planning in Kenya* set out as one of the major developmental objectives the need to achieve high and growing per capita incomes equitably distributed among the citizens. Even though some progress towards this end was made during the first decade of independence, as evidenced by per capita incomes growing at 2.6 per cent per year, performance in later years has been disappointing. Between 1980 and 1989, the average growth rate of per capita income was only 0.4 per cent and between 1990 and 1995 the rate was a negative 0.3 per cent per year. Rapid and sustained per capita income growth has remained an elusive target. Furthermore, over the last two decades, the economy has been unable to create jobs at a rate to match that of the growth of the nation's labour force. Since 1980 there has been virtually no change in the living standards of Kenyans. If anything, the welfare of majority of the people has declined as evidenced by the increase in the number of Kenyans living below the absolute poverty line. In addition, the number of the unemployed and underemployed has risen during the same period and has accumulated over the years.

1.0.2 To improve the living standards of Kenyans and create employment opportunities for the rapidly increasing labour force, there is need not only for rapid and sustained economic growth over a long period of time but also for a rapid and sustained reduction in the population growth rate. Experiences from other parts of the world have shown that real per capita incomes, for example, of the Newly Industrialising Countries (NICs) of East Asia, grew rapidly and consistently over a period of three decades because high rates of economic growth were accompanied by sharply declining rates of population growth. These two factors, working together, have succeeded in increasing employment opportunities while at the same time reducing the growth of the labour force. For this reason, policies that would accelerate the rate of economic growth while at the same time increasing per capita income form the focus of this Plan.

1.0.3 This chapter reviews the performance of the economy and discusses the problems and constraints that have hindered economic growth over the last three decades. It also presents the challenges for the future, the case and the potential for more rapid industrialisation, development targets and prospects, the strategy for rapid and sustained growth and an outline of Plan Chapters.

1.1 OVERALL PERFORMANCE OF THE ECONOMY

(a) GDP Growth Rate

1.1.1 During the early years of independence, Kenya achieved commendable economic growth compared to other developing countries. Table 1.1 shows that for the period 1964 to 1973, Gross Domestic Product (GDP) grew on average by 6.6 per cent per year. The rapid growth during the decade resulted mainly from successful rural development policies that led to increased agricultural output, import-substitution industrialisation strategy supported by access to the East African Community markets and good macroeconomic management. In the case of agriculture, the main source of growth was the expansion of land under cultivation and the introduction of more modern farming practices. As for the manufacturing sector, growth was largely due to the expanding domestic demand supported by rising agricultural incomes, the encouragement of investment through high levels of protection and an active Government role in industrial promotion and investment. The good performance during this period was, however, not sustained. Since the mid-1970s, the performance of the economy has indeed been very poor. The growth rate of GDP declined to an average of 5.2 per cent per year between 1974 and 1979, and between 1980 and 1989 and 1990 and 1995, average growth rates for GDP were 4.1 and 2.5 per cent per year respectively.

Table 1.1: Average Annual Growth Rates of Real Gross Domestic Product, 1964-1995 (Percentages)

	1964-	1974-	1980-	1990-
Agriculture	4.60	3.90	3.30	0.40
Manufacturing	9.10	10.00	4.80	3.00
Private Household	3.50	14.50	10.00	10.50
Government Services	16.90	6.50	4.90	2.60
Finance, Real Est, etc	9.80	12.40	6.70	6.60
Other Services		3.30	4.20	1.90
GDP	6.60	5.20	4.10	2.50

1.1.2 On a sectoral basis, it can be seen from Table 1.1 that during the period 1964 to 1973, the manufacturing sector registered an average growth rate of 9.1 per cent and agriculture 4.6 per cent per year, whereas during the periods 1980 to 1989 and 1990 to 1995, the annual average growth rates for manufacturing were 4.8 per cent and 3.0 per cent, respectively and that and for agriculture were 3.3 per cent and 0.4 per cent respectively. The two major sectors have recorded declining performance over the last three decades even though manufacturing appears to have been more resilient.

1.1.3 The decline in economic growth in the mid-1970s was triggered by the first international oil price crisis of 1973. The onset of the oil price crisis revealed serious structural constraints within the economy. Agricultural growth slowed down as the forces which boosted its production during the 1960s weakened. In addition, inappropriate policies turned the internal terms of trade against agriculture. As regards industry, growth declined due to a weak incentive system which favoured production for the domestic market over production for export, and to diminishing opportunities for efficient import substitution. These factors were exacerbated by the collapse in 1977 of the East African Community, the traditional market outlet for Kenya's industry and the growing inefficiency of public industrial investments. After the second international oil price crisis of 1977 and the severe drought in 1984, the structural constraints worsened leading to slower growth, high inflation and a deterioration in the balance of payments.

1.1.4 By the mid 1980's, it had become clear that structural constraints had emerged within the economy that were preventing it from achieving the high economic growth rates of the 1960s and early 1970s. Although the poor economic performance after 1973 has often been attributed to external factors, it is noteworthy that some countries that were at the same level of economic development as Kenya, and which faced similar external forces, were able to emerge from the crisis due to sound economic policies and structural flexibilities. Kenya's internal policies and structural rigidities were constraining the nation's economic growth and development. This led the Government to adopt Structural Adjustment Programmes (SAPs) through the publication of Sessional Paper No.1 of 1986 on *Economic Management for Renewed Growth*. In this Sessional Paper, the Government sought to broaden the role of market signals and align relative prices more closely with those in world markets.

1.1.5 The Government then started implementing SAPs in agriculture, industry and trade, and the financial sector. The reform process, though effective in terms of reducing protection and encouraging manufactured exports, did not bring about any meaningful improvement in the performance of the economy. If anything, the economic performance continued its downward trend as evidenced by a decline in the GDP growth rates from 4.3 per cent in 1990 to 2.3, 0.5 and 0.2 per cent in 1991, 1992 and 1993 respectively. To reverse this trend, the Government in 1993 introduced more far-reaching structural reforms These included price decontrol, removal of all import licensing and foreign exchange controls, and reforms of investment incentives, public enterprise guidelines, and the financial system.

1.1.6 The need to concretise these reforms, led to the publication of the Sessional Paper No.1 of 1994 on *Recovery and Sustainable Development to the year 2010*. This Paper, though intended to complement and build on the Sessional Paper No.1 of 1986, had the overall objective of introducing policies and programmes necessary to bring about both economic recovery and stability, and to accelerate and sustain development. The first three years covered by the Sessional Paper have been implemented through the 7th National Development Plan, whose theme was ***Resource Mobilisation for Sustainable Development.*** The major thrust of the Plan was reliance on market forces to mobilise resources for sustainable growth with the role of the Government being increasingly confined to providing an effective regulatory framework and essential public infrastructure and social services.

1.1.7 The economic policies enunciated in the Sessional Paper No.1 of 1994 and subsequently in the 7th National Development Plan are bearing fruit. For example, after the economic slowdown of 1991-1993, economic growth has recovered with GDP growing substantially at 3.0 and 4.9 per cent in 1994 and 1995 respectively. To further improve the performance and sustain economic growth, the structural reforms are continuing, with the focus being on the removal of the remaining bottlenecks to growth by maintaining macroeconomic stability, improving the efficiency of the public service, enhancing external and domestic competitiveness of the economy, addressing the social aspects of development and reducing corruption. The pursuit of these policies forms the thrust of this Plan.

(b) Structural Change

1.1.8 The share contributions of various sectors to the GDP are given in Table 1.2. Over the last three decades, notable structural transformation has occurred in the economy as reflected by the changes in sectoral share contributions to total GDP. The share of the manufacturing sector has increased from an average of around 10 per cent between 1964 and 1973 to 13.6 per cent in the 1990-95 period. On the other hand, the share of agriculture has declined from an average of about 37 per cent between 1964 and 1973 to 26.2 per cent in the 1990-95 period. This trend conforms with empirical evidence that as a country develops, the contribution of manufacturing to GDP expands considerably and at some stage it surpasses that of agriculture and other primary industries. The service sector has grown rapidly, its share in

GDP rising from 53.4 per cent in 1964-73 to 57.4 per cent in 1980-89 and subsequently to 60.2 per cent in the 1990-95 period.

Table 1.2: Sectoral Shares in the Real Gross Domestic Product, 1964-1995 (Percentages)

	1964-73	1974-79	1980-89	1990-95
Agriculture	36.6	33.2	29.8	26.2
Manufacturing	10.0	11.8	12.8	13.6
Services	53.4	55.0	57.4	60.2
TOTAL	100	100.0	100.0	100.0

1.1.9 The service sector (including the public sector) contributes over half of Kenya's GDP and also provides over two-thirds of the total modern wage employment. In this regard, its future prosperity is of vital importance to the economy not only in terms of direct employment and wealth generation, but also in the support it provides to the other sectors particularly the manufacturing sector. Some of the potential comparative advantages that Kenya holds regionally and internationally stem from this sector. The tourism industry, for example, is the second highest single source of foreign exchange earnings after tea. Other services that have significant potential for generating foreign exchange earnings and employment include information technology, banking and finance and other professional services.

(c) External Trade

1.1.10 Kenya's exports are dominated by a few agricultural commodities namely; tea, coffee and horticulture. In 1972, coffee accounted for 20.1 per cent, tea for 13.4 per cent and horticulture for 4.8 per cent of total export value. Other important items were petroleum products which accounted for 20.6 per cent. Thus, coffee, tea and horticulture accounted for 38.3 per cent of the value of exports. By 1990, tea had overtaken coffee as the main foreign exchange earner. Tea accounted for 25.5 per cent of the total value of exports while coffee accounted for 17.9 per cent and horticulture rose to about 13.0 per cent. Manufactured goods accounted for 16.8 per cent. By 1995, coffee accounted for 15.5 per cent, tea for 19.3 per cent and horticulture declined to about 11.4 per cent. Exports of manufactured goods performed well in 1994 accounting for nearly 32.3 per cent of the total value of exports. This was due to far-reaching economic reforms undertaken by the Government that led to substantial depreciation of the Kenyan Shilling making Kenyan products more competitive.

1.1.11 As for imports, the major items continue to be crude petroleum, industrial machinery and industrial inputs such as iron and steel. In 1985, crude petroleum accounted for 37.7 per cent of the total value of imports and 18.7 and 7.5 per cent in 1993 and 1995 respectively. The second in importance among the imports is industrial machinery which accounted for 26.5 per cent of the value of imports in 1975 and 12.9 and 16.8 per cent in 1993 and 1995 respectively. The other major import items are the industrial inputs. In 1975, iron and steel accounted for 6.8 per cent of the value of imports and 6.0 and 6.6 per cent in 1993 and 1995 respectively. Overall, in 1975, crude petroleum, industrial machinery and iron and steel accounted for 71 per cent of the value of imports. However, the share of these three items in the total value of imports declined to only 37.6 per cent in 1993 and 30.9 per cent in 1995. In 1993, other items such as motor vehicles and chassis, refined petroleum products and pharmaceuticals increased their shares in the total value of imports. This was mainly due to the liberalisation of trade, through the removal of import licensing, quantitative import restrictions and foreign exchange controls.

1.1.12 One effect of the aforementioned measures has been that the increase in the value of imports has not been matched by a corresponding increase in export earnings, and the balance of trade has deteriorated. The balance of trade deficit increased from K£1,378 million in 1993 to K£2,892 million in 1995. In relation to GDP at current prices, this works out to be 10.2 and 14.9 per cent for 1993 and 1995 respectively. This shows that the balance of trade has continued to deteriorate since 1993 with trade liberalisation. It should, however, be noted that even though liberalisation has increased the volume of imports, exports have also grown but at a lower rate than imports.

Therefore, for Kenya to reduce its deficit in the balance of trade, it will be necessary to raise substantially the volume of exports, especially non traditional exports. This calls for policies that will make the economy more outward oriented and also raise the share of manufactured exports in the total value of exports. The policies stipulated in this Plan are aimed at re-orienting the economy in this direction to enable the country to achieve sustainable economic growth and development.

(d) Investment and Savings

1.1.13 In tandem with the general decline in economic performance since the late 1970s, the growth of the nation's capital stock fell to 2.7 per cent per year in the 1980s compared to an average of 7.1 per cent in the 1970s. By the early 1990s, the growth of gross investment was just sufficient to maintain the capital stock at a constant level. Despite recent improvements, Gross Fixed Capital Formation (GFCF) still remains low at an annual average of 17 per cent of GDP in the 1990s compared to 31 per cent and 21 per cent in the 1970's and 1980's respectively. One notable feature of GFCF is that it is increasingly being financed through domestic savings. Between 1978 and 1990, the proportion of gross fixed capital formation financed from domestic sources increased from 54.2 per cent to 63.0 per cent. By 1994, the proportion financed from domestic sources had risen to 94.0 per cent before declining to 75.3 per cent in 1995. This indicates that Kenya's past reliance on foreign savings to finance her capital formation is changing. The shift toward domestic saving became more pronounced after 1991 when inflows of Official Development Assistance (ODA) declined following the suspension of donor aid.

1.1.14 If the country is to achieve sustainable levels of development, an increase in both investment and savings will be crucial. The level of investment should be in region of 25 to 30 per cent of GDP. This will require a high level of domestic savings in both public and private sectors coupled with the tapping of foreign savings through the promotion of direct foreign investments. Average domestic savings stood at 19.1 per cent per year for the period 1990-1995. This rate must be increased substantially if the country is to achieve its desired level of investment.

(f) Employment

1.1.15 One of the main objectives of accelerating economic development is to create employment opportunities for the rapidly growing labour force. This has been the main focus of various policy documents, the latest being the Report of the Presidential Committee on Employment of 1991 entitled *Development and Employment in Kenya.*

1.1.16 Despite the Government's efforts in this area, the country has been unable to generate adequate employment opportunities as evidenced by the low growth of wage employment. Between 1964 and 1973, wage employment grew by an average of only 3.6 per cent per year. There was a slight improvement for the period 1974 to 1979 when a growth rate of 4.2 per cent per year was achieved. Thereafter, however, the average annual growth rate declined to 3.5 per cent in the 1980s and to 1.9 per cent per year in the early 1990's. Recent rates have been far below the population growth rate and they have led to an accumulation of large numbers of openly unemployed people. Moreover, many of those who have found jobs in the small scale agriculture and informal sectors have been underemployed. The 7th Plan projected modern sector wage employment to increase from 1,460,000 in 1993 to 1,490,000 and 1,540,000 in 1994 and 1995 respectively. The urban informal sector employment was projected to increase from 710,000 in 1993 to 760,000 in 1994 and 840,000 in 1995. These modest targets have already been achieved. In 1994, wage employment in the modern sector was about 1,510,000 whereas for 1995 it was 1,560,000. This represents an annual growth rate of 2.0 per cent in 1994 and 3.4 per cent in 1995. The increase was mainly in the private sector. As regards the urban informal sector, the increase was even more pronounced, recording 1,170,000 in 1994 and 1,470,000 in 1995. The expansion of employment in the urban informal sector has been spectacular.

1.1.17 To help alleviate the unemployment problem, the Government has in the recent past recognised the importance of the informal sector and is endeavouring to promote its development. Sessional Paper No. 2 of 1992 on *Small Enterprise and Jua Kali Development in Kenya* provides the policy framework for promoting such enterprises. It is apparent that the Government's effort in this area is bearing fruit. The sector is currently creating more jobs than the formal sector. For example, in 1995, the informal sector employed about 2,200,000 people while the modern sector employed only 1,600,000 people. Furthermore, job creation was higher in the informal sector than in the modern sector. Between 1991 and 1994, informal sector employment grew by 16.1 per year on average compared to only 1.9 per cent per year realized in the modern sector. But many of the jobs created in the informal sector do not pay well because productivity is very low. Hence, many are poorly paid and/or underemployed.

1.2 CHALLENGES AND CASE FOR INDUSTRIALISATION

(a) Challenges

1.2.1 The stagnation in real per capita income growth over the past fifteen years has been due to limited economic growth accompanied by rapid population growth, the two factors resulting in increased unemployment and poverty. These two problems have been aggravated in the short-term by the implementation of SAPs. It is undeniable that the vulnerable groups have suffered as austerity measures introduced under SAPs have reduced the availability and affordability of social services, eroded real wages, and reduced public sector employment. To alleviate some of these short-term adverse effects on the segments of the society most adversely affected by the process of economic reforms, the Government has initiated the Social Dimensions of Development (SDD) Programme. The programme does not, however, provide a long-term solution to the problems of unemployment and poverty. It is an intervention measure intended to assist those who are affected most immediately and most negatively by the SAPs.

1.2.2 The number of people unemployed is currently estimated at 2.7 million and the labour force is increasing by nearly half a million people every year. The economy has been creating an average of 240,000 jobs every year, of which 26,000 are in the modern sector and the rest in the informal sector. In addition, the decline in the average size of land-holdings in small-holder agriculture and the increase in the number of households have exacerbated the incidence of underemployment in the rural areas. This has in turn led to an increase in the number of the poor. Despite the seemingly large number of jobs created in the informal sector and small-holder agriculture, a large number of people in such jobs must be considered as working poor. It is estimated that the prevalence of absolute poverty in the country has been rising. In the rural areas, the number of people living below the absolute poverty line was estimated to have increased from 40.2 per cent in 1982 to 46.4 per cent in 1992. Within the urban areas, the incidence of absolute poverty was estimated to have stood at around 29.3 per cent in 1992. Overall, by 1992, an estimated 11 million Kenyans or about 43 per cent of the entire population were living below the absolute poverty line.

1.2.3 To meet the challenge of reducing unemployment and poverty, it will be necessary to accelerate and sustain the rate of economic growth. It is estimated that the economy will need to grow on average by over 8.2 per cent per year over the next two and a half decades so as to be able to significantly reduce unemployment and poverty. During this Plan period, the economy is expected to grow by an average of 5.9 per cent per year. This must be accompanied by a reduction in the population growth rate if meaningful improvement in standards of living of the people is to be achieved. It is anticipated that this challenge will be addressed by the policies spelt out in the Sessional Paper on *Population Policy for Sustainable Development to Year 2010*, which will be implemented concurrently with this Plan.

1.2.4 As most of the poor depend on income derived from labour, that is, from work on their own land, wages or self-employment, reducing poverty over the long-term will require policies that promote both rural development and urban employment. In Kenya, the majority of the people in the rural areas derive their livelihood from agriculture and livestock farming. Policies that aim at rural development therefore must focus on these sectors. This Plan aims at improving the quality of life of people in the rural areas by encouraging the adding of value to agricultural and livestock activities. This will be possible if more industrial investments are made that offer markets for the products produced in the rural areas. The increase in the level of industrial investments will subsequently lead to increased urban employment and higher incomes. This will reduce poverty directly and, in turn, generate resources for Government to reduce poverty and improve the living conditions of people.

(b) Case for Industrialisation

1.2.5 Kenya has in the past depended heavily upon the agricultural sector as the base for economic growth, employment and foreign exchange generation. An estimated 80 per cent of the population live in the rural areas and depend on agriculture for their livelihood. In addition, the sector accounts for two-thirds of the country's exports. Historical experience has, however, shown that industry has a higher potential for stimulating economic growth. As a supplier of essential inputs to other sectors as well as the industrial sector itself, and as a user or processor of the output of other sectors, industry represents an effective stimulant to the economic system. In this regard, the growth of the industrial sector raises productivity not only in the sector itself but also in other sectors of the economy. Whereas agriculture will continue to be the primary foundation of rapid and sustained growth, industry, and more particularly the manufacturing sector, will be more dynamic in accelerating this growth.

1.2.6 The dynamism in manufacturing may be clearly demonstrated by the resilient nature of the sector over the years in terms of growth as explained in paragraph 1.1.8. It should, however, be pointed out that the sector's growth, depends heavily on the success of agriculture, given the strong links between the two sectors in Kenya. Industry induces the development of agriculture by providing markets for its products through the processing of agricultural outputs while at the same time providing required agricultural inputs such as fertilizers, pesticides, farm implements and machinery. In addition, rising agricultural output and incomes create a growing demand for manufactures and a source of the savings needed to finance industry.

1.2.7 In light of the foregoing, it becomes clear that agriculture and manufacturing are a *twin engine* to rapid economic growth. However, agriculture suffers from vagaries of weather and agricultural commodity exports also suffer from price and revenue instabilities due to inelasticities in their demand and supply. It follows that, in order to ensure stable and sustainable economic growth, the prospects lie more with the development of industry.

1.2.8 In recognition of this fact and the need for accelerating the rate of economic growth and structural transformation, the theme adopted for this 8th National Development Plan is ***Rapid Industrialization for Sustained Development***. To enable industry take up this challenging role, it is necessary to design appropriate measures that would enhance its development. The policy framework needed to generate rapid and sustained industrial development in the future has been articulated in the Sessional Paper No. 1 of 1994 on ***Recovery and Sustainable Development to the year 2010*** and the Sessional Paper No.2 of 1996 on ***Industrial Transformation to the Year 2020***. This 8th Plan is intended to put in place measures that would implement the Sessional Papers for the next five years so as to enable Kenya to attain the status of a NIC by the year 2020.

1.2.9 Kenya's past inward-oriented economic policies have led to the development of an inefficient and uncompetitive manufacturing sector dominated by traditional, light and low technology industries. Intermediate and capital goods industries are relatively underdeveloped. The sector relies heavily on imported intermediate inputs and machinery thus making it highly import dependent. Industry, therefore, has not created strong domestic linkages. Apart from the agricultural and other resource-based industries, manufacturing remains predominantly an enclave sector and, as a result, the dynamic deepening effects on the economy that countries expect of industry are lacking. Deliberate efforts, therefore, must be made to promote linkages among industries and sectors to enhance the spread effects of industrial growth and to facilitate the transfer of technology, skills, and growth to small scale sub-contractors.

1.2.10 During the next five years, emphasis will be placed on the expansion and modernisation of existing industries and on the attraction of new investments in light manufacturing and resource-based industries. Kenya's strategy of industrialization will focus on these activities initially because they are well suited to the levels of technology and human skills currently available in Kenya. The development of intermediate, capital goods and information technology industries must await the moderation of various operational and technological constraints that currently exist in Kenya. These constraints relate to the minimum-efficiency plant size, scale economies, the size of the domestic market, export prospects, managerial and skilled manpower requirements, technological complexity, availability of infrastructure such as water, electricity, telecommunications, transport and producer services, including engineering services and repair and maintenance.

1.2.11 The initial path of industrialization in the East and South-East Asian NICs focused on agro-processing, food processing, and light manufacturing such as textiles and clothing, leather and leather goods, food, beverages and tobacco. These activities were less demanding in terms of technological and skill requirements. These are also the industries whose products Kenya should be able to produce and export, and whose promotion is in line with the current developmental strategy of outward orientation. The Sessional Paper No.2 of 1996 has placed these industries in phase one of Kenya's industrialisation process which will in part be implemented during this Plan period. While emphasising the development of the light manufacturing industries during the next five years, it is necessary at the same time to start preparing the ground for the future establishment of intermediate and capital goods industries. This preparatory work will encompass, among other things, the rehabilitation and renewal of the existing physical infrastructure and the upgrading of the nation's human capital by diversifying and enhancing skills through education and training while developing a larger pool of entrepreneurial talent. Closely related to human capital accumulation is a concomitant development and continuous upgrading of technological capacity to assimilate the latest technologies, and to enhance product design capacity through institution-building of science and technology.

1.3 DEVELOPMENT TARGETS AND PROSPECTS

(a) Target GDP Growth Rates

1.3.1 Kenya's target GDP growth rates for the years 1997-2001 are based on those of the first phase of implementation of Sessional Paper No.2 of 1996 on *Industrial Transformation to the Year 2020*. Over the period, the economy is expected to grow at an annual average rate of 5.9 per cent as shown in Table 1.3. The projected rate of growth is considerably above the averages achieved over the past decade and reflects several factors. The major ones are the continued confidence of investors in the reform process, continued donor support, fairly good weather and the continuation of macroeconomic stability.

Table 1.3: Projected Growth Rates for GDP and Sector Shares, 1997-2001

Sector	Projected Growth Rate 1997-2001, %	Sector Share 1996,%	Projected Sector Share 2001, %
Agriculture	4.4	27.9	26.0
Industry	7.86	16.5	18.0
Services, private	6.0	38.6	38.8
Public Services	6.2	17.0	17.2
GDP	**5.9**	**100.0**	**100.0**

1.3.2 In sectoral terms, the share of the primary sectors of the economy, namely agriculture, forestry and fishing, quarrying and the traditional economy will decline; the services and public sectors will remain more or less constant; and industry's share will increase by over one and half percentage points. The growth of manufacturing is expected to boost the industrial demand for electricity and water, but the sector is also expected to become involved in the provision of these services. The decline of the primary sector represents a continuation of the secular trend that has been with us since independence. Service sector growth is expected to emanate from tourism and banking and finance services as well as the multiplier effects of the stronger industrial growth.

(b) Employment Targets

1.3.3 Details of the employment projections for the years 1997 to 2001 are given in Table 1.4. The employment targets are based on various considerations Firstly, real wages are expected to remain stable over the 1997-2001 period due to improved macroeconomic management. Secondly, the elasticities of employment with respect to GDP are expected to remain at 0.7 for formal and 1.1 for informal sector employment. In view of this, formal and informal sector employment are expected to grow at 4.1 per cent and 6.5 per cent per annum respectively. Agricultural employment is targeted at 2.4 per cent, two percentage points less than its projected growth of output, leaving room for substantial productivity growth.

Table 1.4: Sources of Employment and Employment Growth, (in millions)

Sector	1991	1994	2001	Increase
Small scale agric.	5.31	5.92	7.00	1.08
Large scale agric.	0.42	0.47	0.55	0.08
Rural informal	0.35	0.62	0.98	0.36
Rural formal, non	0.23	0.41	0.55	0.13
Urban formal	0.74	0.81	1.08	0.27
Urban informal	0.70	1.16	1.83	0.66
Total employed	7.77	9.40	12.	2.61
Total labour force	10.1	11.5	13.7	2.23
Unemployed (%)	23.4	18.5	12.8	-

1.3.4 With this scenario, total employment will increase by 1,600,000 over 1997-2001, an annual growth rate of 3.5 per cent. Unemployment will still remain high at 12.8 per cent of the labour force by the year 2001, but it will have declined from 18.5 per cent in 1994. It should be noted that total labour force growth over 1994-2001 at 2.7 per cent is a percentage point lower than projected growth in working age population. This is due to the changing participation rate as rural-urban migration and improved educational opportunities alter the participation rate and raise the age at which youths enter the labour force. Small scale agriculture is still projected to provide the largest share of jobs, 1,100,000 over 1994-2001, or 41.6 per cent of new jobs. The urban informal sector is expected to expand rapidly also, creating

669,000 jobs or 25.6 per cent of the total. This is more than twice the number expected from the urban formal sector during the Plan period. The rural informal sector is expected to grow as fast as the urban informal sector, creating 360,000 jobs or 13.8 per cent of the total. Hence, the informal sector as a whole will create 39.4 per cent of the total, which is equivalent to that of agriculture. The rest of employment is to be created in the urban and rural formal sectors.

1.3.5 These projections lead to a decline in the share of agriculture employment from 67.1 per cent in 1994 to 62 per cent in 2001; an increase in informal sector employment from 19.5 per cent to 24.1 per cent; and an increase in non-farm formal sector employment from 13.4 per cent to 14 per cent of the total labour force. Strategies aimed at achieving these targeted levels of employment will be pursued during this Plan period.

(c) Investment and Savings Targets

1.3.6 For Kenya to achieve a GDP growth target rate of 5.9 percent, it is necessary for the country to attain an investment level of 25-30 per cent of GDP, which is comparable to those of NICs at takeoff stage. Kenya's private savings have often reached 20 per cent of GDP. However, public savings, particularly in the recent past, have often been negative. Therefore, the immediate challenge during the Plan period will be to raise public savings to significant and positive levels of 4 to 8 per cent of GDP while at the same time encouraging the mobilisation of domestic private savings to a level of around 25 per cent. The level of foreign savings will be expected to rise over the Plan period from the level of 6.5 per cent of GDP in 1995. It will be equally important to ensure that investments financed by such savings are efficient.

(d) Per Capita Income Growth Rate Targets

1.3.7 Poverty reduction strategies will be given great emphasis during the Plan period given that an estimated 11 million Kenyans live in absolute poverty. Whereas the Government recognizes that there is need to ameliorate the effects of poverty in the short run through targeted interventions, emphasis in the medium and long-term will be placed on raising per capita income. It is expected that during the Plan period the per capita income will increase from about US$275 in 1995 to US$329 in 2001 in constant (1994) prices. This will translate into an average annual per capita growth rate of about 3.2 per cent per year between 1997 and 2001, based on an annual average population growth rate of 2.7 per cent per year.

1.3.8 As the majority of the poor live in rural areas, most Government interventions in the short-run will be directed to the rural areas. Funds will be allocated for intensive rehabilitation and maintenance of minor roads while community based modalities for providing support to the rehabilitation and maintenance of water projects will be developed. A pilot water fund will be established by 1998. Given that the greatest percentage of the vulnerable groups are women living in rural areas who provide the bulk of labour in the small-holder farms and who head a third of the households, measures will be taken to ensure that they have access to agricultural credit, information and other support that will enable them to earn better incomes and to improve their living standards. Additionally, the Government's Social Dimensions of Development (SDD) programme is targeted to spend an average Kshs.12.1 billion a year on basic needs oriented programmes focusing on the rehabilitation of stock routes, improvements in drought management and immunisation, school health and feeding programmes.

(e) Tourism Growth Targets

1.3.9 Foreign exchange earnings from tourism are expected to increase from K£1790 million in 1997 to K£2,470 million in 2001, representing a nominal average growth rate of 8.4 per cent per annum. This growth is based on trends in various tourism sector indicators as shown in Table 1.5. Tourist arrivals are expected to increase from 764,000 in 1997 to 1,160,000 in 2001, representing an annual average growth rate of about 11 per cent. Bed night occupancy will increase at an average annual rate of about 6.0 per cent over the same period.

Table 1.5: Targets for Tourism Development, 1997-2001 ('000)

Tourism Indicator	1997	1998	1999	2000	2001
Tourist arrivals	764	848	941	1,045	1,160
Foreign Exchange	1,790	1,940	2.100	2,280	2,470
Bed-nights Occupancy	7,190	7,480	8,080	8,870	9,070
Of which:-					
Foreign Visitors & Per. Res	6,100	6,230	6,630	6,910	7,200
East African Resi.	1,090	1,250	1,460	1,660	1,870
Nos. of Days of Stay	11,900	12,900	13,200	13,900	14,700

1.4 CAPABILITY FOR INDUSTRIALISATION

1.4.1 Experience has shown that before a country can move into a higher growth path of rapid industrialisation, it has to achieve certain critical masses in human and infrastructural conditions as well as sound institutional capacity and an appropriate policy framework. Rapid economic development in the NICs began in the late sixties and early seventies. Hence, a comparison with those countries' position in 1970 with Kenya today will give some indication of the potential shortfalls Kenya must overcome in human and infrastructural stocks in order to achieve the targets set in the preceding section.

1.4.2 Table 1.6 shows the educational enrolments in primary, secondary and tertiary levels for several NICs and Kenya. It would appear that by 1991, Kenya's primary enrolment was approaching that of the NICs. Indeed, the country's primary enrolment was higher than that of Malaysia. However, as regards the secondary and tertiary enrolments, there are substantial differences. By 1991, the secondary and tertiary enrolments in Kenya were far below those of most NICs in 1970. Yet these are the levels of formal education which are important for industrialisation as they are necessary for coping with more complex, fast moving technologies. Clearly, much remains to be done for Kenya to close the gaps that exist in secondary and tertiary education if it is to attain the status of an NIC by 2020. The data in the table do not disclose differences in the quality of education at the several levels shown, but observation suggests that these differences, too, are substantial and must be overcome in the relatively short period of time available to us.

Table 1.6: Educational Level Comparisons between Kenya and NICs

Country	Percentage of Age Group Enrolled in Education					
	Primary		Secondary		Tertiary	
	1970	1991	1970	1991	1970	1991
Malaysia	87	93	34	58	4	7
Thailand	83	113	17	33	13	16
S. Korea	103	107	42	88	16	40
Mauri-	94	106	30	54	1	2
Indone-	80	116	16	45	4	10
Kenya	58	95	9	29	1	2

1.4.3 Secondly, the level of basic infrastructure in Kenya by 1990, with the exception of electricity, was comparable to that of NICs prior to their takeoff more than 25 years ago, as shown in Table 1.7.

Columns (vi) and (vii) show that boosting the level of electricity production will be a major challenge during the Plan period. In addition, Kenya has a relatively poor record of maintaining the infrastructure that is in place. The figures in brackets in columns (iii), (v), (vii) and (ix) of the Table give a comparison in percentage terms of paved roads in bad condition, faulty telephones, losses of electricity, and percentage losses of water. The bracketed figures in the last row of Table 1.7 also indicates that with the exception of water provision, the quality of Kenyan infrastructure was way below the NICs' average. Hence, there is a provision as well as a maintenance challenge if Kenya is to prepare her infrastructure adequately for the industrialisation process that lies ahead.

1.4.4 The twin challenges that relate to infrastructure can thus be summed up under provision and maintenance, with the latter requiring priority. It is noteworthy that the weakness of physical infrastructure in Kenya is one of the principal causes of the unsatisfactory performance of the existing industrial enterprises and partly accounts for the low level of investments in the country. In order to achieve rapid and sustained industrialisation, it will be necessary to address the challenges posed by the inadequate provision and maintenance of infrastructure. These issues are more fully addressed in Chapter 5.

Table 1.7: Provision and Quality of Infrastructure: Comparisons Between Kenya (1990) and NICs (1970)

Country per year (i)	Paved Roads km/mn people		Telephones/ mn people		Electricity capacity Kwh(000')		Access to safe water: % of population	
	1970 (ii)	1990 (iii)	1970 (iv)	1990 (v)	1970 (vi)	1990 (vii)	1970 (viii)	1990 (ix)
Kenya	-	313(68)	-	8,314		32.81 (16)	-	49 (18)
Malaysia	1,386	-	17,251	(7)	84.54-	(16)	29	(29)
Thailand	271	(50)	6,543	(2)	37.45	(11)	17	(48)
Korea	112	-	-	-	85.83	(6)	58	-
Mauritius	2112	(5)	21,609	-	135.22	(14)	61	-
NIC average as % of Kenya 1990		310 (40.4)		187		261 (62.5)		84 (157)

*The figures in brackets in column three (paved roads) are for 1988. ,** The figures in brackets in column nine (access to safe water) are for 1986

1.5 STRATEGY FOR RAPID AND SUSTAINED GROWTH

1.5.1 The next phase of Kenya's economic development in general and the manufacturing and services sectors in particular must be outward looking, relying heavily on both domestic and foreign private investment. The starting point is the building of export-oriented light manufacturing industries, which happen also to be labour intensive. These are the type of industries in which Kenya has potential for penetrating export markets. Furthermore, they will assist the country in meeting one of the major developmental challenges of employment.

1.5.2 Kenya's industrialisation process will not be easily achieved in practice. Unlike the NICs, which industrialised under protected domestic markets, Kenya is attempting to achieve the same result with a liberalised market. Markets are also rapidly being globalised and the new information technologies are creating new uncertainties and opportunities. In addition, whereas the current NICs industrialised in high growth regions, Kenya is attempting to industrialise in a region with a tradition of low growth. To industrialise in such an environment, Kenyan manufacturers will have to produce goods and services that are internationally competitive in both quality and price. The Government, for its part, must provide a conducive business environment which includes provision and maintenance of basic infrastructure, comprehensive and efficient support services and the assurance of a stable supply of skilled labour. Such an environment is necessary for promoting domestic investments and also for attracting foreign direct investments for which there is great competition.

1.5.3 The process of industrialisation will include a 'deepening' of the industrial sector by creating *core* and *linkage* industries, as well as acquiring and adapting relevant technologies to enhance factor productivity. It will also include broadening the base of participation in the industrial sector by constantly bringing in new streams of entrepreneurs, men and women, and upgrading their skills; building up the technical and managerial capacities of micro, small and medium scale industries to produce new products, process waste and develop new markets. It *further calls for adopting an industrial culture and an export mentality which implies attitudinal, organisational and* *operational changes in the nation at large.* It implies also a certain level of neo-mercantilism, *selling more abroad than one imports.* With this outward orientation comes the need for efficiency in the use of resources, the need for competitiveness, *right price, high quality, and timeliness and reliability of delivery.*

1.5.4 The policies propounded in this Plan are intended to promote the growth potential of the economy by improving the overall competitiveness of the industries through strengthening efficiency, improvement of information networks and enforcement of fair competition rules. They also call for the efficient use of human and other resources. In addition, measures will be taken to foster private initiative and creativity at all levels of business and free the economy from the constricting Government interventions that have characterised the past three decades.

1.6 OUTLINE OF PLAN CHAPTERS

1.6.1 Chapter 1 has reviewed Kenya's development challenges and prospects by critically examining the overall performance of the economy, prospects of achieving growth targets set in the Plan, the country's capability and capacity to industrialise, and specific strategies for rapid economic growth. Chapter 2 discusses the existing and required macroeconomic environments for industrialisation. It addresses fiscal and monetary policies, the financial institutional framework, financial resource mobilisation, and aspects of structural adjustment programmes. Chapter 3 focuses on agriculture and rural development. It presents agriculture in a wider context as the supplier of raw materials to the industrial sector as well as a consumer of manufactured goods. The Chapter acknowledges the significant role of small scale agriculture in food production and in agro-based industries. Chapter 4 presents the case of non-agricultural primary and related raw materials. This encompasses forest, fisheries, wildlife, minerals, and solid waste as forms of industrial raw materials. Chapter 5 and 6 examine physical infrastructure: energy, transport, communications, water and land, and human resource development as well as safety net considerations. Chapter 7 focuses on research and development, while Chapter 8 provides a detailed discussion of the industrialisation support framework ranging from market development, promotion of the complementarity between small scale and formal sector industrial activities, to regional and international cooperation, the role of local authorities, and the social and political environment necessary to attract the required investment. Chapter 9 presents a policy matrix specifying target actions, implementing agents and time frame. It also addresses mechanisms for evaluating the policies contained in the Plan and their implementation.

CHAPTER 2

MACRO-ECONOMIC ENVIRONMENT FOR INDUSTRIALIZATION

2.0 INTRODUCTION

2.0.1 The major development challenges that face the country as spelt out in Chapter 1 are those of creating conditions for rapid and sustained growth, at levels that significantly increase employment opportunities and improve the living standards of the population. Implementation of structural reforms, will be sustained focusing on the maintenance of a stable macro-economic environment within which the private sector can operate and flourish.

2.0.2 Prudent management of major macroeconomic variables is essential for industrialisation in Kenya. This will entail, among other things, consistency in maintaining price stability and ensuring an enabling environment for the accumulation and efficient utilisation of financial resources. These measures are expected to facilitate efficient private sector operations and increase both the level and efficiency of domestic savings and investment.

2.0.3 This Chapter presents and discusses the fiscal and monetary policies that the Government will pursue to ensure a stable and predictable macro-economic environment during the Plan period. It also looks at the prevailing constraints and policy options for the financial institutions framework, and advances arguments for deepening the structural adjustment programmes.

2.1 FISCAL AND MONETARY POLICIES

2.1.1 During the last Plan period, the Government put in place a stable macro-economic environment by pursuing tight fiscal and monetary policies. The major objective was to spurring economic activity, maintaining low inflation, creating positive real interest rates and stabilising nominal exchange rates. The Government also sought to reallocate public expenditure towards its basic functions of maintaining law and order and administering justice, financing broad-based education and health services, providing economic infrastructure, supporting agricultural research and extension, and protecting the environment.

2.1.2 It is evident that significant achievements have been made in restoring macro-economic stability. The growth of money supply has been reduced substantially, foreign exchange rates have been stabilised, and inflation has been sharply reduced to a single digit level. In addition, the budget deficit as a proportion of GDP has been brought down from 11 per cent in 1992/93 to 1.9 per cent of GDP in the 1995/96 fiscal year.

2.1.3 One effect of the fore-going was the recovery of the economy from virtual stagnation in 1993 to growth rates of 3.0 per cent and 4.9 per cent in 1994 and 1995 respectively. However, due to poor performance in the current account, the balance of payments worsened. The value of exports grew by 30 per cent between 1993 and 1995 whereas the value of imports grew by about 74 per cent during the same period.

(a) Fiscal Policy

2.1.4 The objective of fiscal policy during the Plan period will be to reduce further the budget deficit as a proportion of GDP with the aim of eventually eliminating it. This is necessary to mitigate the undesirable effects that high budget deficits have had on domestic prices, interest rates, balance of payments and the value of the Shilling against other currencies.

2.1.5 During this Plan period, the Government will consolidate the progress already made in deficit reduction by achieving a target deficit of 1.5 per cent of GDP by 1997/98 and eliminating it entirely by the end of the Plan period. This will be achieved through the following methods:

- maintenance of proper accounting procedures by Ministries to curb wasteful and unnecessary (un-authorised) expenditures;

- curbing corruption through appropriate legal and administrative actions;

- rationalisation of taxes through widening the tax base, while at the same time reducing the upper limits to discourage tax evasion and promote domestic savings. At the same time revenue collection will be enhanced by ensuring improved remuneration and funding of the Kenya Revenue Authority (KRA);

- avoiding implementation of unplanned and uneconomic projects;

- avoiding accumulation of unpaid bills and drawing foreign funds promptly; and

- releasing exchequer issues in a timely fashion.

2.1.6 Reducing Government budget deficits and achieving surpluses will have several beneficial effects on the economy. Firstly, as surpluses are achieved they can be used to reduce domestic debt, which should lower interest rates and increase prospects for economic growth. Secondly, some of the accruing savings can be used to build and maintain the infrastructure necessary for industrialisation, such as roads, telecommunications, water and power supply. Thirdly, lower deficits will mean less Government borrowing from the Central Bank of Kenya (CBK) and from the public. This will reduce the 'crowding out' effect this borrowing has on private sector borrowers. Thus, private sector borrowers will have access to more funds, especially from the banking system. Lastly, deficit financing through borrowing, especially through high yielding Treasury bills, has put pressure on other interest rates (the T-bill rate is taken as the bench-mark rate). This has discouraged or impeded private sector borrowing for long term investment. Less Government borrowing will reduce the pressure on interest rates allowing them to fall, which will encourage entrepreneurs to invest in industrial and other opportunities.

Public Expenditure

2.1.7 Government expenditure has continued to exceed budgeted targets/estimates. Moreover, development expenditure has been growing faster than recurrent expenditure putting pressure on the recurrent budget. These factors have led to persistent budget deficits. The Government's Budget Rationalisation Programme that began in 1987 has, nevertheless, achieved a significant reduction in expenditure as a proportion of GDP since that time. Total expenditure as a percentage of GDP declined from 36.9 per cent in 1993/94 to 31.4 per cent in 1994/95 before increasing marginally to 31.9 per cent in 1995/96.

2.1.8 During this Plan period, rationalisation of Government expenditure will continue with more resources being channelled to development and recurrent non-wage operating and maintenance expenditure in order to stimulate growth. At the same time, an increasing proportion of public expenditure will be channelled to the implementation of special programmes intended to benefit, in the short run, those sections of the population that have been adversely affected by economic reforms.

2.1.9 Further, attention will be refocused on expenditures that foster economic growth. While the Government is committed to providing adequate funding for the operation and maintenance of existing public investment, it will at the same time encourage and facilitate private sector participation in providing certain infrastructure. The implementation of the Government Budget will continue to be monitored on a continuous basis with a view to identifying early warning signs that call for corrective and deterrent measures.

2.1.10 The Treasury will provide programmed funding for core projects, and will continue to review its project portfolio in line with the goal of directing 75 per cent of total expenditure to core Government functions. The project portfolio will be rationalised by identifying and terminating non-priority projects as a way of making Government expenditure more cost effective. Towards this end, the Project Management Department (PMD) in the Office of the Vice President and Ministry of Planning and National Development (OVP & MPND) is being strengthened to ensure that all new projects are vetted and subjected to project selection criteria before they are introduced into the Public Investment Programme (PIP) and given budgetary commitments. To give legal effect to this measure, legislation will be brought to Parliament by June 1998 to make all public investment projects subject to project appraisal procedures by the ministry responsible for planning, and on-going projects will have to form part of a ministry's PIP prior to their being considered for funding in the budget.

Central-Local Government Fiscal Relations

2.1.11 The Central Government controls the revenue-raising ability of Local Authorities (LAs) by determining the types and rates of local taxes and fees. The Government also sets limits on local authority borrowing. On the expenditure side, it influences Local Authorities' fiscal performance through approval of budgets, tenders and contracts, recruitment of personnel and the general level of wages and salaries.

2.1.12 Despite these controls, there is no grant system that facilitates the flow of budgetary resources from the central government to local authorities to cover any deficits which they may realise. The trend of revenue and expenditure realisation indicates serious fiscal deficits which translate into neglect of development and maintenance of vital services. This sometimes includes inability to pay salaries or to meet statutory obligations. In these circumstances, it is not surprising that investors are reluctant to locate their firms in Kenya's municipalities..

2.1.13 During the Plan period, fiscal relations between the Treasury and Local Authorities, which are under review as part of the Kenya Municipal Reform Programme (KMRP), will be streamlined to improve the financial strength of the LAs. New policies will cover rationalization of central/local licensing, harmonization of taxation, the need for grant funding, and management of local government debt. Where necessary the Government will provide technical support to LAs to enable them to rationalize their manpower needs based on their revenue capacities.

Government Revenue

2.1.14 The Tax Modernisation Programme (TMP), which had the objective of improving economic efficiency, administration, and fairness in the tax system, laid the foundation for tax reform. During the Plan period, the reform programme will seek to reduce the tax burden and broaden the tax base. This initiative will be undertaken by the Treasury in conjunction with the KRA, which administers the collection of major taxes. Efforts to attract and retain more qualified staff by the Authority are expected to improve revenue collection further. In addition, management of the Authority will be strengthened so that it can identify alternative methods of revenue collection, including contracting out the exercise wherever feasible.

2.1.15 To promote the objective of industrialisation, the Government is moving away from reliance on import duty as a means of mobilising revenue. Import tariffs have been progressively reduced, with especially liberal reductions being made in duties levied on capital equipment and primary raw materials. This trend will continue with the aim of reaching a four rate system, including a duty free rate.

2.1.16 The Value Added Tax (VAT) is currently the primary source of revenue for the Government. Improvement in its administration will benefit industrialisation in that it is an indirect tax on consumption and therefore has a smaller adverse effect on investments as compared to the income tax. Currently the rate of ordinary revenue to GDP at about 30 per cent is quite high. Accordingly, following improvements in the performance of VAT, income tax rates, both personal and corporate, will be progressively lowered in order to reduce their disincentive effect on savings and investment. This will leave more disposable income in their hands for investment.

Domestic and External Debt

2.1.17 The servicing of domestic debt created an unsustainable burden on the budget during the last Plan period. In the financial year 1995/1996 interest payments accounted for about 5 per cent of GDP at current market prices. The Government will therefore pursue rigorously the objective of reducing gradually the level of domestic debt through net retirement. This will ease the crowding out of credit to the private sector, gradually reducing domestic interest cost to the budget, and increasing the level of public savings. This will in turn allow more rapid expansion of essential expenditures.

2.1.18 At the end of the 1995/96 financial year, the total domestic public sector debt stood at about Kshs. 126 billion, while external debt was about Kshs 371 billion. These numbers represent 26 per cent and 76 per cent respectively of GDP at current market prices: and reflect substantial and consistent declines from the high levels of 36 per cent and 147 per cent respectively which prevailed in 1992/93. Medium term projections suggest further declines in the debt burden. By 1998, external debt should represent a lower 68 per cent of GDP.

2.1.19 Given the concessional nature of external borrowing (over 80 per cent of the total debt), interest payments have been low. For example, in 1995/96 interest payments on external debt amounted to only 2.3 per cent of GDP.

(b) Monetary Policy

2.1.20 The primary goal of monetary policy during the Plan period will be to maintain price stability. This will be achieved by ensuring that the rate of expansion of money supply is consistent with both the growth of economic activity and attainment of a sustainable balance of payments position. Market based indirect methods of monetary management will be relied upon, using, in particular, instruments such as cash ratios, liquidity ratios, and Open Market Operations (OMO) to manage domestic liquidity.

2.1.21 Inflationary pressures in the economy, which had reached unprecedented levels in 1993 when the average annual inflation rate as measured by the Nairobi Consumer Price Index (CPI) reached 45.6 per cent, have since then experienced drastic reductions. The annual inflation rate dropped to 28.8 per cent in 1994 before reaching a single digit level of 1.6 percent in 1995. Among the major factors that have been responsible for this commendable achievement are the pursuit of tight monetary policy by the Central Bank of Kenya and more stringent budgetary controls by the Government.

2.1.22 During the Plan period, the inflation rate will be held to single digits. To achieve this target, growth of the money supply, which in the past exceeded 20 per cent per year, is targeted to grow by no more than 11 per cent per year. In support of this, reserve money is targeted to grow by no more than 6 per cent, a rate in line with the projected annual growth of GDP over the Plan period. The Central Bank's credit to the Government, which has been the main source of money supply growth, will be kept to the barest minimum following statutory limitations that limit such borrowing to a maximum of 5 per cent of the gross recurrent revenue of the Government as shown in the Appropriation Accounts for the latest year for which those accounts have been audited by the Controller and Auditor General.

Money Supply

2.1.23 In the most recent period, money supply growth has been considerably reduced reflecting the tight monetary policy. In 1995, the money supply grew by about 18.6 per cent as compared to 23.8 per cent in 1994. The growth was even smaller, if the impact on the money supply of converting Non Bank Financial Institutions (NBFIs) into banks is netted out.

2.1.24 Measures to strengthen monetary management will be introduced by the Central Bank of Kenya during the Plan period. These measures include:

- strengthening the primary market in Treasury Bills by streamlining maturities and making the auctions market more transparent;

- improving the flexibility of monetary policy instruments. In particular, the Lombard facility has been introduced to enhance the Bank's role as lender of last resort;

- co-ordinating monetary management with debt management and foreign exchange operations to ensure stability in interest rates and exchange rates; and encouraging the development of active secondary markets in treasury bills by introducing Repurchase Agreements (REPO), developing a central depository system for Treasury bills and introducing the sale of treasury bills at the stock market.

Interest Rates

2.1.25 In 1991 the CBK deregulated interest rates, allowing them to vary with the demand and supply of loanable funds. However, one of the most important problems facing the economy and limiting prospects for investment is high interest rates. Lending rates are over 23 per cent, which is too high in both nominal and real terms for most investment projects to be viable. High rates of interest can be explained by the fact that interest rates trail inflation, and are also pegged to the treasury bill rate. The other variables with significant influence over interest rates are the cost of imports, level of indirect taxes, and the oligopolistic nature of the banking sector brought about by a handful of banks controlling a substantial share of total bank deposits. However, the primary cause for persistently high and rising interest rates is tight monetary policy. The 18 per cent cash-ratio and the 2 per cent liquidity-ratio imposed on banks by the Central Bank of Kenya reduce the amount of money available to banks for trading purposes. The high demand for loanable funds (resulting partly from excessive Government borrowing), coupled with low domestic savings, is another factor contributing to unusually high interest rates.

2.1.26 The Treasury will take appropriate fiscal policy measures to address the root cause of large Government borrowing, namely the large budget deficits. At the same time, the maintenance of a stable macroeconomic environment is expected to lead to lower inflation and hence less upward pressure on interest rates.

2.1.27 Monetary authorities will continue to pay greater attention to the issue of reducing interest rates by taking a number of measures, including:

- developing and improving secondary markets for government securities;

- maintaining low inflation over the plan period;
- promoting public and private domestic saving;
- encouraging external borrowing by the private sector; and
- introducing the Lombard borrowing facility for commercial banks to reduce volatility in interbank lending rates.

Exchange Rates

2.1.28 In order to enhance the country's competitiveness in external markets, and also to attract foreign direct investment (FDI), the Government in 1993 removed foreign exchange controls and in 1995 repealed the Exchange Control Act. Currently, the exchange rate of the Shilling against external currencies is determined largely by market forces. However, to achieve a stable exchange rate, the Central Bank of Kenya intervenes through buying and selling in the foreign exchange market. These actions serve to minimize undesired fluctuations of the Shilling. In addition, trade restrictions have been removed, except for a few items restricted on health, security and environmental grounds.

2.1.29 Exchange rates will continue to be largely market determined. The Central Bank will only intervene in the foreign exchange market to limit undesirable fluctuations caused by mismatches between the supply and demand of foreign currencies.

Bank Supervision

2.1.30 To maintain solvency and stability of the banking industry, the Central Bank of Kenya will intensify surveillance over the banking system by ensuring that statutory requirements and prudential guidelines are strictly followed. Stiff penalties will be imposed for non-compliance with regulations and guidelines. Whenever appropriate, the Bank will manage and liquidate weak institutions.

2.2 FINANCIAL INSTITUTIONS FRAMEWORK

2.2.1 To marshal resources for the envisaged industrial take-off, financial institutions must be in place to mobilize, intermediate and maintain the flow and management of the necessary financial resources. By April 1996, Kenya's financial system consisted of 51 Commercial Banks, 23 NBFIs, 5 Building Societies, 39 Insurance Companies, 3 Re-Insurance Companies, 10 Development Financial Institutions, a Capital Markets Authority (CMA), 20 Securities and Equities Brokerage Firms, 1 Stock Exchange Market, 12 Investment Advisory Firms, 57 Hire Purchase Companies, several Pension Funds including National Social Security Fund (NSSF), 13 Foreign Exchange Bureaus and 2,670 Savings and Credit Co-operative Societies. At the apex of this structure is the Central Bank of Kenya which regulates and supervises the banking system and manages monetary policy.

(a) Recent Performance

2.2.2 By the standards of developing countries, Kenya's financial sector has demonstrated significant dynamism; its contribution to GDP has averaged 8.7 per cent between 1990 and 1994 and has been growing, as depicted in Table 2.1.

2.2.3 The assets of the banking system have more than tripled between 1990 and 1995 . Those of NBFIs, on average, increased by 16 per cent between 1990 and 1994, but decreased by 14 per cent in 1995. The assets of insurance companies increased by 74 per cent between 1990 and 1994. The number of Savings and Credit Co-operative Societies (SACCOS) increased from 2,251 in 1990 to 2,670 in 1994, while their share capital increased from K£50 million to K£118 million over the same period. The market capitalization of the Nairobi Stock Exchange (NSE) increased almost ten times from K£545 million in 1990 to K£5,276 million in 1995, while the number of shares traded increased almost six times from 11,047,000 to 62,164,000 over the same period. There is scope for further expansion in the market capitalization of NSE through the privatisation of the parastatals. The value of shares traded increased from K£12 million in 1990 to K£167 million in 1995. The number of brokerage firms, which had stagnated at 6 for a very long time, increased to 13 in 1994 and reached 20 in 1995. Despite these achievements, the financial sector has shown serious weaknesses which limit its ability to fulfil its role in industrialisation.

Table 2.1: Assets and Liabilities of Financial Institutions, 1990-1995 (K£ Million)

Institution/Year	1990	1991	1992	1993	1994	1995*
Banking System	3,353	3,927	4,664	6,021	8,005	10,459
NBFIs	2,127	2,443	2,839	3,408	3,899	3,340
Insurance Companies	787	887	991	1,257	1,370	..
NSSF	..	1,377	1,677	2,034	..	..
% Share of Financial Sector in GDP	7.9	8.2	8.7	9.3	9.6	..

*= Provisional, ..= Not available

2.2.4 As a starting point for improving banking services, the extensive Post Office banking network will be re-oriented from mere primary deposit taking and withdrawal points to providing secondary financial services by December 1998. In particular, the network will be used to provide lines of credit to women groups, Jua Kali associations, small scale enterprises and smallholder farmers in areas not adequately served by branches of modern financial institutions.

(b) Constraints and Policy Actions

2.2.5 The weaknesses currently constraining the performance of Kenyan financial institutions derive from their historical orientation and culture of pioneer foreign owned banks, past legislative weaknesses and lags in technological development.

The Banking System

2.2.6 The Kenyan banking system is dominated by a few large banks which focus on short-term lending to finance commerce, especially foreign trade. Of the 51 commercial banks operating in Kenya, the largest four control 81 per cent of deposits. The short-term nature of their lending and their own corporate interests are in conflict with national interests, which require longer term commitments and a better appreciation of the needs of the Kenyan economy. Their policies of concentrating on a small corporate clientele have implied indifference or even hostility to small savers and borrowers, thus excluding the bulk of potential Kenyan savers and investors. The current capitalization levels, instituted in response to bank failures in the mid-1980's are considered by many to be too high and prohibitive to many entrepreneurs who might otherwise venture into banking. This and other regulations have not granted due recognition to professional management as a critical element in ensuring sound banking practices.

2.2.7 During this Plan period, the Central Bank and the Ministry of Finance will support establishment of new locally-owned banks and facilitate and strengthen growth of existing ones to enable them to take up the role of providing the much needed long-term financing required for industrialisation. In this respect, the monetary authorities will review the Banking Act by June 1997 to take into account capitalization requirements, regulations governing professionalism and ethics in banking, and other necessary conditions to support development of locally-owned banks. To eliminate mismanagement of financial institutions, the Monetary Authorities will elevate punishment for such premeditated offences to deterrent custodial sentences.

2.2.8 The growth and sophistication registered in the Kenyan financial system has not been matched by efficiency gains in the quality of services delivered to customers and the economy in general. Many banks offer poor services, exemplified by long queues and waiting time in banking halls, in spite of the opportunity cost that customers must bear and current developments in information technology, which make such wastes unnecessary. Processing of transaction instruments (such as cheques) takes too long, with some banks taking as long as 3 weeks to discount cheques. The large differential between deposit and lending rates points to lack of sufficient competition for savings among Kenyan banks. Bank charges for services rendered are also very high, making the cost of banking prohibitive. Despite all these deficient services, banks have posted huge profits and their shares have appreciated in recent years. Normally, such high profitability would have triggered rapid entry of new competitors, but this has not materialized, pointing to some real barriers to entry, which the current Plan will identify and seek to eliminate.

2.2.9 In order to address these problems the Central Bank of Kenya will introduce, by March 1997, regulations to check oligopolistic tendencies in the sector so as to enhance competition and to set minimum service delivery standards to be observed by all banks, including a statutory requirement for the maximum period banks can take to discount cheques and other instruments. To stimulate technological development and absorption, the Ministry of Finance will continue to provide fiscal incentives to financial institutions to harness new information technology concepts with a view to improving their efficiency.

2.2.10 In order to industrialise, all potential sources of domestic savings must be harnessed and channelled to investors, both big and small. To this end, the Ministry of Finance and the Central Bank of Kenya will introduce incentives to all financial institutions to open mediation channels for the emerging informal sector, self-employed individuals and low and middle income earners by December 1997. Further, the Monetary Authorities will work-out modalities of developing a "thrift saving system" or the so called "People's Banks" either as autonomous institutions or as agents of existing financial institutions in order to help bring financial intermediation within the reach of the majority of Kenyans. Further tax incentives will be availed for rural branch network expansion to reach rural populations and hence expand the savings base beyond urban centres. Finally, all institutions that accept deposits will be encouraged to offer a more widely diversified array of savings instruments in order to meet the needs of customers and to stimulate much needed domestic saving.

2.2.11 Experiences from other parts of the world, particularly the NICs, have shown that the Central Bank can be a prime source of finance for priority investments that are consistent with major development policies. Hence, the Central Bank of Kenya will be expected, within the Plan period, to explore modalities through which it can directly provide financing for priority industries.

Development Finance Institutions (DFIs)

2.2.12 Kenya's development finance institutions were tailored to provide long-term finance, especially to serve the special financial needs of state enterprises. They lacked effective statutory powers to raise funds independently, and hence their capacity to meet their obligations was tied to the Government's ability to raise funds externally. As the Government's own resource needs expanded, the DFIs found themselves losing priority. These institutions also concentrated on funding state enterprises, which were often unable to service their loans due to their poor management practices. Furthermore, their state ownership and the Government's influence over their policy and management decisions made them open to political patronage and abuse, thus preventing them from developing into viable commercial entities.

2.2.13 To solve these problems and re-establish their critical functions in long-term financing for rapid industrialization, the Government will divert DFIs away from Government patronage by gradual privatization and enabling new partners in ownership (the private sector) to instill commercial ethics in management, fund-raising and lending. Injection of new managerial autonomy will be the first step towards granting them full financial autonomy. Further steps will be taken during the Plan period to enable development finance institutions to obtain cheap financial resources from multilateral and bilateral sources to be used for industrialisation.

The National Social Security Fund (NSSF)

2.2.14 Since its inception in 1966, the NSSF has been given substantial responsibilities for the custody and management of workers' pension contributions and retirement benefits, with no provision for secondary trading in its custodial funds. These massive funds managed by a public institution were also open to abuse. Lags in reviewing the operational regulations of the fund have denied it the opportunity to participate in the evolving financial system and the chance to realize its full potential in resource mobilization. Instead it concentrated investment of its funds in risky instruments in weak financial institutions and questionable real estate.

2.2.15 During the Plan period, the Government will institute a comprehensive management framework to enable the Fund to harness its potent financial energy to participate fully in the financial system. The NSSF will be converted into an autonomous pension fund and its portfolio of investments will be rationalised by being shifted away from investments in real estate, property and deposits in financial institutions to investments in Government paper and other high yielding financial assets, including equities. This will add considerable investible resources to the pool of loanable funds available to finance industrial sector growth. To expand opportunities for working savers and businessmen, the Government will prepare and pass legislation to allow the establishment of more privately managed pension funds, to cater for the segments of savers who are not currently covered or satisfied with the services rendered by the NSSF.

Capital Markets

2.2.16 Securities and equity markets are still underdeveloped and cannot provide the much needed long-term investment funds. Only 30 per cent of shares are quoted on the Nairobi Stock Exchange. Industrialists and other investors have, in the past, relied heavily on short and medium term finance provided by banks to finance their investments. Reducing reliance on expensive short term finance in favour of cheaper long term finance is an important prerequisite for the rapid and sustainable industrialization envisaged in the current Plan.

2.2.17 Accordingly, the Capital Markets Authority will play a crucial role in the development of long term financial instruments and the institutions necessary for efficient functioning of the market. The CMA will facilitate, during the Plan period, the establishment of full-service security firms, debt and equity underwriters, merchant banks, credit rating agencies for industrial bonds, investment advisors, depository institutions and specialised market information agencies. The CMA will also strive to attract international capital by opening the security markets fully, allowing foreign brokers to participate, expanding foreign equity participation through Global Depository Receipts/American Depository Receipts (ADRs) and promoting the establishment of Independent Rating Agencies and secondary markets for debt instruments. In view of these, the Government will support initiatives aimed at developing capital markets in the region.

2.2.18 Additional sources of finance for firms will be made available through more rapid depreciation allowances, abolition of taxation of capital gains of insurance companies, and encouragement of Venture Capital Funds. The regulatory framework for the development of Venture Capital Funds will be put in place during the first year of the Plan.

2.2.19 Other measures to be taken by the CMA include development of:

- collective investment vehicles such as unit and investment trusts;
- professional fund managers;
- foreign portfolio investment;
- a second tier board at the stock exchange for venture capital to be invested in new companies with growth prospects but no track record to qualify them for listing on the main board; and
- a public education and awareness programme to increase the level of participation by domestic investors in the capital markets.

The Co-operative Sector

2.2.20 The co-operative sector, which handles the largest share of marketed agricultural production, has played a small role in financial resource mobilization. The apathy of farmers and cooperators reflects the poor performance of co-operative societies, which has adversely affected not only their earnings potential, but also their savings. This situation is a result of poor and ineffective management, corrupt practices, a lack of commercial ethics and restrictive legislation.

2.2.21 Given the high potential of the co-operative sub-sector in resource mobilisation, the Co-operatives Act will be amended to allow savings and credit co-operative societies and unions more freedom to mobilize savings and invest prudently without jeopardising the interests of share contributors. Mismanagement of funds will not be condoned and severe punishment will be meted out to those involved. The Ministry of Co-operative Development will provide the necessary fiscal and regulatory incentives to enable co-operative societies to re-establish their Union Banking subsidiaries, to offer secondary banking services, and to act as conduits for produce payments as in the past. However, such banks will be brought under the CBK's supervisory department so that rules and regulations pertaining to financial institutions will apply to them. Their rural character, location and simplicity of operations make them accessible to informal businessmen and traders based in small rural towns and villages. The CBK will consider their special potential in this regard in promulgating favourable legislation to nurture the growth of co-operative union banks.

Special Financial Institutions

2.2.22 Specialised financial institutions in Kenya remain severely underdeveloped. Hence during the Plan period, appropriate measures will be taken by the Monetary Authorities to promote development of sector specific banking institutions, including the following:

- *Industrial Properties Development Bank (IPDB).*
- *Export/import Banks.*
- *Merchant Banks* for long term lending and consultancies.
- *Equipment Leasing Institutions.*

- Sector specific lending institutions such as a *Coffee Development Bank; an Agricultural Development Bank and a Tea Development Bank.*

- In order to finance rural agriculture and to provide gender sensitive loans to small scale enterprises, consideration will be given to creating a *Rural Development Bank.* The Rural Development Bank will play a crucial role in mobilising rural farm and non-farm savings to support investments in the rural areas. The management of the Bank will be professional, and responsive to all the stakeholders, including NGOs and local community leaders.

2.3 FINANCIAL RESOURCE MOBILISATION FOR INDUSTRIALISATION

2.3.1 Rapid industrialisation will require Kenyans to postpone consumption in favour of savings. They will have to provide most of the required financial resources for industrialisation. Their higher levels of domestic savings will form the driving force behind rapid industrialisation. This is important because the average savings rate is still very low, and needs to be increased from the current level of 20 per cent to something in excess of 30 per cent. Foreign savings will continue to complement domestic savings.

(a) Domestic Savings

2.3.2 Domestic savings is the sum of public and private sector savings. Public sector savings arise from budgetary surpluses while private domestic savings, on the other hand, arise from either the corporate sector's retained earnings or household savings. Table 2.2 below shows the trend of savings in Kenya. From this Table, it can be seen that domestic savings as a percentage of GDP declined to a level of 16.0 in 1992 before recovering to 20.3 and 22.3 in 1993 and 1994, respectively. However the situation deteriorated again in 1995.

Table 2.2: Kenya's Savings and GDP, 1990-1995 (Billion Shs)

	1990	1991	1992	1993	1994	1995
A Foreign Savings	17.4	12.4	9.4	3.9	4.6	25.1
B Domestic Savings	30.2	34.6	35.3	54.8	72.7	76.5
C Public Savings	-4.6	-2.6	-3.9	-13.0	-6.0	7.1
D GDP	167.6	190.8	219.7	270.2	326.1	389.1
E A/D (per cent)	10.4	6.5	4.3	1.4	1.4	6.5
F B/D (per cent)	18.0	18.2	16.0	20.3	22.3	19.7
G E+F (per cent)	28.4	24.7	20.3	21.7	23.7	26.2

2.3.3 As already observed, domestic savings level remain low and is inadequate for meaningful industrialisation. In order for industrialization to take place and gain momentum, the level of savings will require to be raised substantially, besides eliminating inefficiencies within the financial system to ensure adequate intermediation.

2.3.4 The main impediments to savings in Kenya include:

- high levels of taxation;
- high levels of foreign and domestic debt;
- low deposit interest rates;
- inadequate institutional framework for capital markets;
- remaining restrictions on foreign investments; and
- limited diversity of savings instruments;

(b) **Foreign Savings**

2.3.5 Foreign savings, which are made up of official foreign savings, i.e. grants and loans, and private foreign savings consisting of direct foreign investments (FDIs) and external commercial borrowing, play an important role in enhancing economic growth. As already noted in Table 2.2, foreign savings as a percentage of GDP declined steadily between 1990 and 1992, before the trend was reversed in 1995. The inflow of foreign capital will be sustained through improvement of the investment climate, which involves political stability, developed and well maintained infrastructure, skilled labour force, well established banking and financial network, an efficient civil service and attractive investment incentives.

2.4 STRUCTURAL ADJUSTMENT PROGRAMMES

2.4.1 Structural Adjustment Programmes (SAPs) were first introduced in the management of Kenyan economy during the 1980/81 fiscal year. They did not, however, become an important part of economic management until after the publication of the Sessional Paper No.1 of 1986. They have since been integrated as policy tools for economic management. The adoption of SAPS was aimed at restoring efficiency in all sectors of the economy and consequently raising the rate of economic growth.

2.4.2 The implementation of SAPS has involved the following main subject areas:

- liberalization of prices and marketing systems;
- financial sector policy reforms;
- international trade regulation reforms;
- Government budget rationalization;
- divestiture and privatisation;
- parastatals reform; and
- civil service reform.

2.4.3 These elements have so far been implemented in various degrees. Some of the major reforms undertaken by the Government to date include: price decontrols; foreign trade liberalisation; decontrol of domestic marketing of agricultural commodities, consumer and producer prices; and decontrol of interest rates and foreign exchange rates, including repealing the Exchange Control Act. The necessary framework has been established to reduce Government spending, restructure the civil service, divest from regular economic activities that could better be undertaken by the private sector, and provide the necessary investment incentives to both local and foreign investors. As was seen earlier, the Government is rationalising public expenditure through the evolution of better public financial resources management. Where feasible, gradual cost-recovery on all market oriented public services has been introduced. Furthermore, only core public projects are being fully funded.

Deepening the Structural Reforms

2.4.4 To facilitate the realisation of rapid and sustained industrial development during the next five years, the Government will undertake further economic reforms to enhance the level and efficiency of public administration and to increase private investment, incomes and job creation. These will include:

- sustenance of macro-economic stability by strengthening monetary and public sector financial management, and re-inforcing fiscal discipline;
- improvement of the efficiency of the public sector by accelerating and streamlining reform in the civil service and public enterprises;
- improving the efficiency and effectiveness of public sector investment, including the delivery of infrastructure services through improved efficiency and better management;
- enhancing external and domestic competitiveness of the economy through further liberalisation of markets;

CHAPTER 3

AGRICULTURE AND RURAL DEVELOPMENT

3.0 INTRODUCTION

3.0.1 Kenya has since independence relied heavily on the agricultural sector as the base for economic growth, employment creation, and foreign exchange generation. The sector is also a major source of the country's food security and a stimulant to growth of off-farm employment, both of which are of primary concern to the Government. These are obvious considerations given that approximately 80 per cent of the country's population live in rural areas and depend on agriculture for their livelihood.

3.0.2 Agricultural production contributes to rural development in various ways. In order to build on agriculture's contribution, the Plan puts in place policies that will locate light agro-based industries in rural areas and small towns. This will be made possible because such small and medium scale industries provide the immediate market for agricultural produce, and rely on agriculture for many of their inputs.

3.0.3 Of the total land surface in Kenya, about 80 per cent is classified as Arid and Semi Arid Lands (ASAL). The development of ASAL areas is therefore considered crucial since about 25 per cent of Kenya's population and over 50 per cent of the total livestock in the country are found in the ASAL areas. Strategies for rural development must address resource availability and utilisation in the ASAL areas.

3.0.4 This Chapter focuses on the multiple roles of agriculture in economic growth, food production, employment creation, foreign exchange generation, and provision of industrial raw materials. Policies and strategies aimed at promoting both the development of rural and the ASAL areas are detailed at the end of this Chapter.

3.1 MULTIPLE ROLES OF AGRICULTURE

3.1.1 The contribution of the agricultural sector to real GDP growth has been higher *vis-a-vis* other sectors of the economy. During the period 1964-74, the sector contributed 36.6 per cent of GDP, 1974-79, 33.2 per cent, 1980-89, 29.8 per cent, and 1990-95, 26.2 per cent. Over the same periods, manufacturing recorded a growing contribution to the GDP of 10 per cent, 11.8 per cent, 12.8 per cent, and 13.6 per cent, respectively, signifying that the sector has high potential for stimulating further economic growth. The potential of manufacturing does, however, depend upon sustained growth of the agricultural sector. The links between agriculture and industrial growth are very strong, and will be especially important in the initial stages of Kenya's industrial development.

3.1.2 Although, agriculture's contribution to GDP growth has been declining over the past few years, it remains one of the most important sectors driving economic growth and plays a central role in employment generation. A large proportion of Kenya's labour force is based in rural areas. According to the 1989 Population Census, out of the total labour force of 9.3 million people, 7.6 million, or about 82 per cent, were based in rural areas whereas only 1.7 million were in urban areas. Available data show that small scale agriculture absorbs the largest share of new additions to the labour force as well. Employment creation in the sector is expected to slow down in the future given the declining share of agriculture in GDP. Hence, policies will need to be put in place to ensure sustainable employment creation both on and off farm.

3.1.3 In view of the difficulties faced in increasing the land area under agriculture, sustained agricultural output will come from more intensified production and rising productivity, particularly to provide inputs for agro-based and food processing industries. Experience from the NICs shows that their initial path of industrialisation focused on agro-processing and food processing, and light manufacturing (textiles and clothing, leather and leather products, food, beverages and tobacco manufacture) which are less demanding in terms of technological skill requirements. Kenya should be attractive for these types of industries whose raw materials largely derive from traditional agricultural farm products.

3.1.4 It is in the context of Kenya's drive towards NIC status that a new approach towards agriculture will be adopted. While food security is a pre-requisite for industrialisation, agriculture should also play a complementary role of producing commercial supplies of agro-based raw materials. So far, the potential of agriculture as a source of industrial raw materials has not been fully exploited. Food security will therefore remain a necessary but not a sufficient goal for agricultural development.

3.2 CONSTRAINTS TO AGRICULTURAL GROWTH

3.2.1 Since 1980, Kenya has not experienced stable growth in the agricultural sector. Indeed, the sector recorded negative growth rates for three consecutive years, between 1991 and 1993. Some of the major constraints faced by the sector include:-

- inadequate rural infrastructure including poor rural roads and transport system;
- high dependence on rain-fed agriculture;
- inadequate input application;
- inaccessibility to credit, for small holder farmers and especially women;
- limited application of agricultural research findings because of inadequate extension activities and support staff;
- low budgetary provision for the agricultural sector;
- cultural constraints, as related to gender discrimination in the ownership, transfer and usage of land, with respect to perceived ethnic exclusion, and traditional inheritance practices leading to land fragmentation; and
- poor coordination of major actors in the sector e.g. infrastructure development, water, lands and settlements, and poor coordination with Ministry of Agriculture, Livestock Development and Marketing (MALDM).

3.2.2 Measures aimed at countering these constraints so as to ensure sustained growth of the agricultural sector, stable supply of food and the availability of industrial raw materials in order to open up the initial path of industrialisation in Kenya are detailed in the rest of this Chapter.

3.3 AGRICULTURAL SECTOR REFORM POLICIES

3.3.1 Throughout the 1980s and early 1990s, expenditure on agriculture as a percentage of total Government expenditure has declined. Between 1980 and 1987, the expenditure share was 8 per cent, falling to 5.2 per cent between 1993 and 1995. The decline in Government expenditure on the sector is reflected in both recurrent and development votes. To enable this sector to grow at a target rate of 4.4 per cent annually, there is need to increase resource allocation to agriculture. In addition, the resources allocated to agriculture must be used more efficiently. This will require improved management in the sector.

3.3.2 The ongoing agricultural sector reform programmes, mostly geared towards creating a liberalised agricultural sector, require consolidation through appropriate policy packages that recognize the interdependencies, especially among the non-agricultural support services. These services include access roads, electricity, telecommunications, market centres, and credit facilities. The private sector, in collaboration with the relevant Government departments, will implement these strategies. This will lead to increased investment, strong linkages between production and marketing in the sector, provision of reliable infrastructural facilities and services, and accessibility to finance and credit .

3.3.3 Increased investment in the sector and providing strong linkages among the various actors will be realized through the implementation of the Agricultural Sector Investment Programme (ASIP). The programme's main aim is to enhance sustainable development in the sector through a more integrated and holistic approach. Involving all of the stakeholders in the agricultural process will require institutionalizing linkages among them and systematic coordination with other sectors that must provide essential agricultural inputs and services, such as energy, access roads, and water. The small holder farmers, who are the primary stakeholders in agriculture will benefit through programmes relating to land tenure, infrastructure and credit that are specified in the ASIP. Farmer associations and organisations are expected to play a greater role in facilitating dialogue among farmers, policy makers and other key stakeholders, such as processors and marketers. The ASIP will be primarily implemented through the MALDM and has been specifically designed to both incorporate and maintain the participation of stakeholders.

3.4 AGRICULTURAL COOPERATIVES

3.4.1 The cooperative movement plays an important role in the mobilisation of domestic savings, agricultural production and marketing, and employment creation in the country. The role of Savings and Credit Cooperative Societies in mobilising domestic savings has been discussed in Chapter 2. The growth of agricultural cooperatives between 1991 and 1995 is summarised in Table 3.1.

Table 3.1: Number of Cooperatives Societies and Unions, 1991 - 1995

Cooperative Type	1991	1992	1993	1994	1995
All Agricultural Cooperatives	2,416 (43)	2,509 (43)	2,647 (43)	2,683 (43)	3,080 (45)
Savings & Credit Societies	2,339 (42)	2,470 (42)	2,616 (42)	2,668 (43)	2,810 (41)
Other non-Agricultural Societies	763 (14)	779 (13)	818 (13)	848 (13)	896 (13)
Unions	76 (1)	76 (2)	76 (2)	77 (2)	81 (1)
Total	5,594	5,833	6,157	6,276	6,867

Note: ( ) denotes percentages

3.4.2 As can be seen from the table, the number of agricultural societies and unions has grown steadily over the years, despite management problems. The total number of societies increased from 5,594 in 1991 to 6,867 in 1995, recording an average increase of 22.7 per cent per over the four year period. Agricultural Cooperative Societies increased by 27.5 per cent, SACCOs by 20.1 per cent, other non-Agricultural Societies by 17.4 per cent, and Unions by 6.6 per cent over the same period. Agricultural Cooperatives alone accounted for 43 per cent of all cooperatives in 1991 and 45 per cent in 1995, thereby showing potential for further growth. In absolute terms, the total value of marketed agricultural produce by cooperatives increased from K£155 million in 1991 to K£491 million in 1995. With the onset of liberal-isation, the proportion of agricultural produce marketed by cooperatives has declined from 59 per cent, in 1991 to 21 per cent in 1995, suggesting that cooperatives have not been able to hold their own against more open competition.

3.4.3 The agricultural cooperatives should be able to compete successively in production, marketing, and industrialiasation due to their economies of scale. To achieve their full potential, cooperative societies must become more efficient through an independent, strengthened agricultural sector and autonómous management. The Ministry of Cooperative Development is in the process of publishing a Sessional Paper on *Cooperatives in a Liberalized Economic Environment* and is collaborating with Attorney Generals. Chambers to amend the Cooperative Act to enable societies to operate competitively and to eliminate inefficiencies in the sector. The policies set forth in that paper will be implemented during the first year of this Plan. Within a more liberalised agricultural cooperative sector, the societies and unions are expected to diversify and invest in small scale industries aimed at processing agricultural raw materials.

3.5 PRODUCTION OF FOOD CROPS

(a) Maize

3.5.1 Maize is Kenya's most important food crop. The area under maize cultivation has stabilized at around 1.4 million hectares with limited potential for further expansion. Due to changes in weather conditions, maize production fluctuates, sometimes leading to serious shortfalls. Production in 1993/94 cropping season was 23.4 million 90 kg bags. This dropped to 17.7 million bags in the 1994/95 cropping season due to poor weather conditions, as shown in Table 3.2.

Table 3.2: Estimated Production of Selected Agricultural Commodities, 1993/94 - 1995/96 (million bags)

	1993/94	1994/95	1995/96*
Maize	23.40	17.73	23.83
Beans	2.39	1.25	2.82
Potatoes	2.26	1.99	2.51
Sorghum	0.95	0.86	1.05
Millet	0.45	0.39	0.47

* Provisional

3.5.2 The average maize yield is about 2 tonnes per hectare, but potential exists for increasing the yield to over 6 tonnes per hectare through increased use of improved seeds, fertilizers and good crop husbandry. Specific constraints affecting the growth of the sub-sector include: unreliable marketing and uncertainty of sale of surpluses due to the private sector weaknesses in maize marketing and transport; inadequate credit to farmers to enable them to purchase improved seeds and fertilizers; and low profitability because of the combination of low yields and poor marketing strategies.

3.5.3 To overcome these constraints an integrated and comprehensive strategy will be adopted during this Plan period. The strategy will include intensified extension services and improved and more efficient product and input markets so that maize production becomes more profitable. The policy framework underlying the strategy must ensure smooth functioning of the maize market, stable prices, and reasonable opportunities for entry by the private sector. Increased maize production will also be influenced by the rate of commercialization of small-holder producers who presently account for 75 per cent of total production. This will require improved access of small-holder farmers to commercial transport and marketing facilities. Promotion of small-scale processors, such as maize milling machine operators and feed mills will assist in stabilizing the supply of maize. A credit programme linked to product sale will be used to increase production.

3.5.4 As the staple food crop, maize has been looked upon as a source of food only. Failure to appreciate the very wide industrial applications of maize has led to inadequate support for non-food processing of the cereal. During this Plan period, intensification of the use of modern farming methods and inputs will be stressed to raise maize yields and hence provide a non-food surplus that can be used in industry. In addition the MALDM will focus increasing attention on the marketing of maize as an input for non-food manufacturing processes. Along similar lines, sector specific lending institutions proposed in Chapter 2 will be expected to produce modalities for extending credit to processors of maize as a means of boosting the non-food demand for maize.

3.5.5 The Ministry of Public Works and Housing (MPWH) will improve rural roads within this Plan period through its ***Roads 2000 Programme***, while the Ministry of Local Government (MLG) will improve urban roads and other Non Motorised Transport (NMT) infrastructure within the municipalities. Local Authorities, besides providing essential infrastructure, will be expected to provide an enabling environment to private sector investors to invest in small scale manufacturing industries such as posho mills, animal feed mills, packaging industries, and other food processors. The Government will also ensure that the National Cereals and Produce Board (NCPB) is fully commercialized by the end of 1997, and that thereafter the Board acts to facilitate the development of private sector actors capable of managing maize marketing. The farming communities will be assisted to form locally based groups to handle and market their produce.

(b) Wheat

3.5.6 The country has the potential to produce enough wheat for local consumption, which is estimated at 6 million bags annually. However, due to various technological and social constraints, the country is producing only 3 million bags. Major constraints contributing to the low productivity of wheat farm in the country include: technological packages that favour large scale farmers; poor credit facilities to smaller farmers; limited land to grow the crop; and poor supply of inputs.

3.5.7 During this Plan period, the Government will address these constraints with a view to raising productivity and where possible increasing crop acreage. The MALDM through the Kenya Agricultural Research Institute (KARI) will intensify research, supported by appropriate extension services and credit facilities to small scale farmers, explore possibilities of utilizing the low potential and ASAL areas, and introduce mechanisms of improving supply of inputs as well as marketing outlets for the crop.

3.6 PRODUCTION OF EXPORT/INDUSTRIAL CROPS

3.6.1 Export industrial crops have traditionally provided the bulk of Kenya's foreign exchange earnings. Coffee, tea and sugar have also played a key role in creating agro-based industrial employment opportunities. These sub sectors will face formidable challenges during this Plan period, largely because of the rapid advance of biotechnology and genetic engineering in other parts of the world. This presents a real challenge for Kenya in terms of losing its comparative advantage in some crops. The MALDM will formulate detailed plans to tackle the potential challenges from biotechnology and genetic engineering while the Ministry of Finance (MOF) will come up with incentive packages to Kenyan producers of industrial crops. These will focus on protecting domestic producers from dumped goods and harmonising tariffs levels with respect to agricultural inputs and outputs.

3.6.2 Specific policy strategies are outlined in the following sub-sections for each of the major industrial and export crops.

(a) Coffee

3.6.3 In recent years, policy changes in the coffee sub-sector and improvement in the prices have raised farmer confidence in the crop. This has resulted in a marginal increase in investment and production of coffee. In 1993/94, coffee deliveries to the Coffee Board of Kenya amounted to 79,900 metric tonnes and deliveries increased to 95,300 tonnes in 1994/95. Table 3.3 indicates that the total land area under coffee increased from 158,200 ha in 1992/93 to 160,000 ha in 1994/95.

3.6.4 Increasing the production of coffee will depend on improving productivity rather than expanding the area under cultivation. The greatest potential lies with smallholder farmers who account for over 50 per cent of the production. Yields from the smallholder farmers averaged 343 and 459 kg/ha in 1993/94 and 1994/95 while that of the estates recorded yields of about 1013 kg/ha during the same periods. This indicates that estates are more than twice as productive as smallholders.

3.6.5 Extension efforts will therefore be focused on improving crop husbandry among the smallholder farmers. The quality of coffee is highly dependent on factory processing and the efficiency with which the various stages of processing are managed. Needs in these areas will be addressed, especially with respect to co-operatives. Efforts to improve management of the coffee co-operative societies will focus on milling and marketing of the crop. Kenya Industrial Research and Development Institute (KIRDI), which is already undertaking research on quality of coffee processing will speed up its research and development to enable coffee farmers to benefit from their work during this Plan period.

Table 3.3: Coffee Production by Area and Average Yield by Grower Type, 1992/93-1994/95

	1992/93	1993/94	1994/95*
AREA ('000 Ha)			
Cooperatives	120.2	120.5	120.0
Estates	38.0	38.2	40.0
TOTAL	158.2	158.7	160.0
PRODUCTION, 000MT			
Cooperatives	42.4	41.3	55.1
Estates	32.7	38.6	50.2
TOTAL	75.1	79.7	95.3
AVERAGE YIEI D (Kg/Ha)			
Cooperatives	352.7	342.7	459.2
Estates	860.5	1012.6	1012.6

* Provisional

management of the coffeė co-operative societies will focus on milling and marketing of the crop. Kenya Industrial Research and Development Institute (KIRDI), which is already undertaking research on quality of coffee processing will speed up its research and development to enable coffee farmers to benefit from their work during this Plan period.

(b) Tea

3.6.6 Kenya's share of the world tea market has increased from 5.5 per cent in 1970 to 16.5 per cent in 1993 and the crop is currently the country's leading export earner, accounting for nearly 20 per cent of total export earnings. The country will strive to improve her share of the world tea market even further in the years ahead. As shown in Table 3.4, national tea production in 1992 was 188,000 tonnes. By 1994, tea production had increased to 209,000 tonnes and in 1995 production was 244,500 tonnes. Rapid growth in tea production has been attributed to the support provided by the Kenya Tea Development Authority (KTDA) to small-holder producers, and the absence of inhibitive controls for estate producers.

Table 3.4: Tea Production by Area and Average Yield by Grower Type, 1992/93-1994/95

	1992	1993	1994
AREA ('000 Ha)			
Smallholder	72.16	73.11	73.84
Estates	31.34	31.75	32.07
Total	**103.50**	**104.86**	**105.91**
PRODUCTION ('000 tonnes)			
Smallholder	99.81	112.53	119.08
Estates	88.26	98.63	90.34
Total	**188.07**	**211.16**	**209.42**
AVERAGE YIELD (Kg/Ha)			
Smallholder	1,729.80	1,942.42	1,776.29
Estates	3,033.40	3,339.10	3,013.39

3.6.7 There are, however, differentials in yield and quality between estate and smallholder producers, and also among smallholders to the east and west of the Rift Valley. The yield of small-holder producers is currently about 58 per cent of that achieved by estate producers. By increasing the use of fertilizers and adopting intensive techniques of harvesting, smallholder yields can be greatly enhanced.

3.6.8 Leaf collection costs are related to the state of roads and the management of the collection network. Improvements in tea roads would increase plucking time for smallholders from the present 4 hours (compared to 9 hours for the estates), and minimize losses due to delays in collection. There is a pressing need for new initiatives to ensure that the tea cess is actually used to repair and maintain tea roads within the locality in which the cess is collected. Farmers, as stakeholders, must genuinely be involved in deciding where their tea cess money is spent. The Agriculture Act will be amended by the end of 1997 to ensure that crop cesses are retained within the locality in which they are collected and used for road improvement.

3.6.9 Inadequate processing capacity is also proving to be a serious constraint to the expansion of tea output. During the Plan period, KTDA will encourage investments in the expansion of tea processing factories to enable the country to realise the production target of over 280,000 tonnes. To overcome processing constraints, legal and administrative factors that inhibit the setting up of private tea factories will be removed during the Plan period. The MALDM will ensure that these restrictions are eliminated during 1997 by amending the KTDA Act.

(c) Sugarcane

3.6.10 Self-sufficiency in sugar has remained elusive over the years. As depicted in Table 3.5, consumption of sugar continues to increase while local sugar production has been decreasing, leading to higher levels of imports. Given the current rate of population growth, it is projected that the demand for sugar will reach 800,000 tonnes by the year 2000.

Table 3.5: Production, Consumption and Imports of Sugar, 1992-1995 (tonnes)

Year	1992	1993	1994	1995
Production	371,225	384,800	349,805	384,171
Imports	180,975	196,047	260,665	226,299
Consumption	552,200	580,847	610,470	610,470

3.6.11 The country, nonetheless, has potential to meet the domestic demand for sugar. To realize this, policy measures in this Chapter are geared towards intensified interventions for supporting an aggressive research programme aimed at higher yielding cane varieties; improved extension and credit services to outgrowers; rehabilitation and expansion of the factories; strengthening of the outgrower organizations; and timely payments to farmers.

3.6.12 Furthermore, the sugar industry is dominated by Government-owned factories with Mumias accounting for half of the domestic sugar production. The Government will continue with the ongoing privatisation of the sugar factories in the country. However, this alone will not attract increased private sector investment in the industry. During this Plan period, the MOF will ensure that import duties on sugar are fully paid to curb the importation of highly subsidized sugar, and to provide a level playing ground for domestic sugar producers.

(d) Cotton

3.6.13 One of the major raw materials for the textile industry is cotton. Over the years, cotton production has fallen below the requirements of domestic textile factories, despite the fact that there is ample potential not only to meet the demand of local textile industries but also to produce a surplus for export. The major constraints faced by the sub-sector have been poor quality of seeds, lack of aggressive research and extension services and delayed payment to farmers by the ginneries.

3.6.14 To revamp the cotton industry the Government has liberalised the sector, especially by privatising cotton ginneries. The textile industries are expected to benefit from liberalisation, and to provide support to cotton growers in order to ensure a sustained supply of quality cotton. The textile industries will also be expected to enter into contractual arrangements with cotton farmers in order to ensure a stable supply of raw materials for the industry. This will include providing seeds, extension services, and credit. KARI will focus her efforts on the generation of the appropriate strains of cotton needed to meet the manufacturers' demands. Policies for cotton sector improvement will form a significant component of the ASIP.

(e) Horticulture

3.6.15 Horticulture has continued to perform well during the early 1990's. The value of total horticultural exports increased from K£185 million in 1991 to K£415 million in 1994, an increase of over 113 per cent. The value of fresh exports increased from K£125 million to K£245 million over the same period, an increase of 96 per cent. More recently, total production increased from 65 million kg in 1994 to 75 million kg in 1995.

3.6.16 The principal horticultural exports are cut flowers, French beans, gardenpeas, mangoes, avocadoes, processed and fresh pineapples, and Asian vegetables. Horticultural production is dominated by small-scale growers who number about 1.8 million and constitute about 80 per cent of all producers. Besides generating employment, horticulture also provides important nutrients for the rural population. Consumption of horticulture by urban households is estimated at 11 per cent of their monthly expenditure.

3.6.17 Constraints affecting the horticultural sector are poor transport infrastructure, distance from international airports, inadequate cooling facilities, fluctuations in electricity supply and international standards such as ISO - 14000 series which could restrict access to lucrative markets. Despite the constraints, there are potentials for increased production and value-added through processing the products. The private sector will be expected to exploit these potentials and invest in the agro-processing of horticulture. The Kenya National Chamber of Commerce and Industries (KNCCI) and Export Promotion Council (EPC) will conduct aggressive marketing campaigns, including the search for new markets in the Far East, Central and Eastern Europe, and regaining the lost markets in the Middle East countries. The MPWH, in conjunction with other agencies, will focus on improving necessary infrastructure.

(f) Oil Crops

3.6.18 Over 95 per cent of domestic edible oil requirements of 200,000 metric tonnes are currently imported costing the country between K£200 million and K£300 million a year. Imports of oilseed cake/meal cost a further K£55 million annually. The consumption of edible oils has been growing at about 13 per cent per annum during the 1978 to 1992 period. Kenya's heavy reliance on imported edible oils has occurred despite the nation's considerable potential to produce the product locally.

3.6.19 The major constraints in the oilseeds sub-sector are poor producer prices, poor transport infrastructure, inappropriate production technology, lack of input support to oilseed producers, low priority for the development of the sub-sector, Government controls and regulations, and lack of a co-ordinating mechanism for the sub-sector. In addition, production of edible oils has relied more on import based oils and fats rather than locally produced varieties. An Oilseed Development Council (ODC) will be established to spearhead planning for the development of the oil-seed industry. The MALDM, in collaboration with the MCI, will facilitate the establishment of the ODC in 1997.

3.6.20 In addition, the institutional framework and Government policies will be redirected towards supporting and providing appropriate incentives for the farming communities in this sub-sector. These will include research in oilseeds through KARI with a focus on ASAL areas, provision of assistance in production, marketing and necessary supporting infrastructures, and a review of import tariff in favour of local production.

(g) Pyrethrum

3.6.21 Total deliveries of pyrethrum to the Pyrethrum Marketing Board were 172.2 tonnes in 1994 and 122.8 tonnes in 1995. Although policies proposed for oil crops would apply to the Pyrethrum sub-sector, more attention will be needed to liberalise marketing of the crop. The MALDM will introduce legislation to remove the Pyrethrum Board's marketing monopoly, while KIRDI, in conjunction with farmers, will investigate modalities for processing pyrethrum before exporting.

(h) Cashew Nuts

3.6.22 This crop is a traditional cash crop in parts of Coast Province. The crop is exported mainly in processed form as kernels which are used as snacks and as raw materials for the confectionery industry. The production of the crop has been declining over the last few years due to many factors which include price disincentives, poor marketing network and crop management, a shortage of planting materials, and the lack of aggressive research and extension services. These constraints will be addressed in order to reverse the declining production trend and to improve the income generating capacities of the cashew nut farmers. The private sector will play an increasing role in the processing of cashew nuts. The MALDM will intensify extension services while KARI will undertake aggressive research with a view to identifying high yielding, disease resistant varieties. The Coast Development Authority (CDA) will play an increasing role in encouraging private sector investment in processing.

(i) Bixa

3.6.23 Bixa is still little known in the country other than in a few areas at the Coast, despite being an industrial and export crop with good potential. The crop does well in the coastal areas, where its potential is still untapped. Production over the years has remained static. This is attributed mainly to poor pricing and marketing policies in general as well as lack of the necessary extension services. The crop is used mainly as a natural food colour and Kenya is one of the major suppliers. In view of the increasing awareness of the dangers of synthetic food colours, food laws in many countries now favour natural food colours. This gives Kenya an opportunity to expand its export base. Policy strategies during this Plan will pay more attention to increased research by KARI and strengthen the role of Cooperatives in the production and marketing of the crop. The CDA will encourage the private sector to invest in the crop.

3.7 LIVESTOCK SUB-SECTOR

(a) Overview

3.7.1 Livestock accounts for about 10 per cent of GDP and over 30 per cent of the farm-gate value of agricultural commodities. The sub-sector employs over 50 per cent of the agricultural labour force, and provides substantial raw materials for the local dairy, meat and meat processing industries, as well as hides and skins for tanneries; wool, and hair.

3.7.2 Livestock production is carried out in both High and Medium Potential Lands (HMPL) and in ASAL areas. Historically, the livestock sub-sector has been characterised by low intensity of land use and low quality of cattle, both contributing to the low output per unit of land. Intensifying land use, upgrading the quality of livestock, and providing appropriate support for the sub-sector will be priorities of this Plan period. Table 3.6 shows that the livestock population declined from 10.1 million in 1993 to 9.2 million in 1994.

3.7.3 Intensification of livestock production will focus on facilitating the conversion from field grazing to zero grazing, greater specialisation in either beef or milk production, artificial insemination and the provision of dipping facilities. Since livestock production is fully privatised, the Government's intervention will focus on extension services, appropriate technology and improved management. The Government has recently instituted several policy strategies in the livestock sector aimed at attaining sustainability and a proper balance in investments and provision of services between the public sector, the private sector and beneficiaries. These recent policy changes include the transfer of most holding grounds to County Councils and retaining strategic ones so as to save costs; decontrol of meat and feed prices, transfer of dip management to Community Dip Committees, the provision of livestock drugs at cost, decontrol of milk prices and liberalization of the veterinary and Artificial Insemination (AI) services.

Table 3.6: Livestock Population, 1993-1994 (000's)

TYPE	1993	1994
CATTLE: Dairy	3,059	3,401
Beef	9,861	9,561
Total	**12,920**	**12,962**
SHEEP: Wool	744	797
Hair	7,074	6,055
Total	**7,818**	**6,852**
GOAT: Milk	32	34
Meat	10,041	9,141
Total	**10,073**	**9,175**

(b) Demand and Supply of Livestock Products

3.7.4 As population and per capita income grow, it is envisaged that the demand for livestock products will increase. Between 1989 and 1992, the country performed well in the production of certain livestock products, such as poultry, pigs, eggs and rabbits, as well as honey and bees wax, as shown in Table 3.7. The average annual growth rates over the period were 10.3 per cent for honey, 10 per cent for bees wax, 6.8 per cent for poultry meat, 7.0 per cent for pig meat, 6.3 per cent for eggs and 50 per cent for rabbit meat.

Table 3.7: Projected Demand for Selected Livestock Products, 1989 - 2000

	1989	1992	Average Annual Growth %	Projected Output in 2000	Projected Demand in 2000	Deficit /Suplus
1. Beef , 000MT	228.00	252.00	3.5	322.00	336.00	(14)
2. Milk (billion Kgs)	2.15	2.36	3.3	2.94	3.15	(.21)
3 Mutton, 000MT	60.00	65.00	3.0	81.00	87.00	(6)
4. Honey	22.5	30.6	10.3	50	65	(15)
5. Bees wax,000 MT	2.2	-	10.0	5	10	(10)
6. Wool, 000MT	1827.0	-	4.5	2500	2700	(200)
7. Poultry Meat, 000MT	29	35	6.8	54	42	12
8. Egss (million nos)	690	820	6.3	1233	1225	8
9. Pig Meat, 000MT	5	6	7.0	9.4	7	2.4
10 Rabbit Meat, 000MT	1.43	-	50.0	8.4	2.1	6.3

Note: ( ) Refers to deficit

3.7.5 Projections in Table 3.7 indicate that the demand for major livestock products, such as beef, milk and mutton (goat) meat will outstrip output leading to deficits, assuming current patterns of production continue. In other categories, such as poultry, pig meat and eggs, surpluses are anticipated by the year 2000. In view of these developments, strategies and measures to raise livestock production to meet domestic demand and to generate adequate supplies for the processing industries are detailed in the subsequent sub-sections.

(c) Hides and Skins

3.7.6 Tannery is one of the labour intensive primary industries that is appropriate during the initial stages of industrialization. Leather tanning depends on the availability and quality of animal hides and skin. In Kenya, the Veterinary Department is responsible for the licensing and regulation of the hides and skins industry. Currently, there are 20 licensed tanners and exporters of hides and skins in the country. Trade in hides and skins brings considerable income to farmers, traders, County Councils, and the Government, while exports of the commodities generate foreign exchange for the country.

3.7.7 With trade liberalization, exports of raw hides and skins have increased due to favourable world market prices. This has, however, created shortages of hides and skins for the local tanneries, some of which are now operating below capacity and are unable to recover their heavy investments in machinery and chemicals. The leather industry finds itself squeezed between the growing exports of hides and skins and the importation of low quality and second hand shoes. Given the importance of the leather sub-sector, the MCI, MALDM and MOF will institute a study to assess the best methods for providing reasonable incentives for the sector, to improve its international competitiveness.

3.7.8 As part of the industrialization strategy, private sector investors will be encouraged to invest in both primary and secondary processing plants close to domestic production areas. If necessary, these plants may import raw hides and skin from neighbouring countries.

(d) Meat Sub-Sector

3.7.9 The meat sub-sector in Kenya can be divided into red and white meat. The former consists of beef and accounts for 70 per cent of meat consumed domestically, while the latter consists of poultry and pigs and accounts for the other 30 per cent. A large proportion of the beef is produced in ASAL areas relying on extensive grazing. Policy actions to improve the quantity and quality of red meat will focus on the intensification of production systems to conserve land, the promotion of water and soil conservation, and the improvement of marketing and infrastructural facilities. Given the diversity of players in this sector, the MALDM, through ASIP, will coordinate actors and actions to ensure complementary behaviour among different players.

3.7.10 About 90 per cent of white meat is produced by smallholder farmers and is dominated by farms in high potential areas. Even though white meat accounts for only 30 per cent of meat consumed, it has high potential for growth. The pig industry is hampered by shortages of breeding stock and nutritional feeds, extension service shortcomings and credit shortfalls. Production of exotic broilers and layers is hampered by lack of adequate day old chicks and feedstock.

3.7.11 Policies to stimulate the white meat sector will focus on ensuring availability of feedstock which will be the task of the MALDM; and ensuring infrastructure, especially feeder roads, running water and electricity. These tasks will be undertaken in collaboration with the Ministry of Public Works and Housing (MPWH), the Ministry of Land Reclamation, Regional and Water Development (MLRRWD), the Ministry of Energy, the Ministry of Environment and Natural Resources (MENR) and private independent power sector producers. In both red and white meat sub-sectors, actions will focus on bringing processing facilities closer to sources of raw materials, while the MALDM will review its support for veterinary facilities which have been privatised as part of the agricultural reform programmes.

(e) **Dairy Sub-Sector**

3.7.12 The Dairy Industry is an area of high priority within the agricultural sector. It has potential for creating employment, particularly in processing and distribution. For this reason, the dairy sub-sector continues to receive attention from both the public and private sectors. Although the country has potential to produce 4 billion litres of milk annually, the current annual production is only 2.2 billion litres. Local demand is 2.1 billion litres. Most of the milk is produced by about 300,000 small-scale farmers. A shortage of dairy feed, poor rural infrastructure, dominance of the market by one single player (the Kenya Cooperative Creameries (KCC)), lack of credit, and Government interventions are some of the problems affecting the industry. A major step forward in reducing Government interventions was the decontrol in 1992 of milk prices and marketing. Consequently, the monopoly status of the KCC in the dairy industry has declined and its market share is now about 70 per cent.

3.7.13 Dairy processing is one of the most important agro-based industries and Kenya is competitive in the region. The untapped milk potential of over 1.8 billion litres will be exploited by providing necessary incentives for increased investments in the improvement of breeding stock, provision of veterinary extension and research services, disease control, provision of credit, and implementation of privatization programmes. The primary objective of promoting increased investments in this sub-sector is to ensure domestic self sufficiency and to expand production for the external market. Special Government efforts will be directed towards the provision of relevant infrastructure, such as electricity, access roads, and transport facilities in milk producing areas.

3.7.14 The Government will also encourage competition in the industry by providing incentives for private sector investors in dairy processing including cheese, ghee, creams, and other dairy products. To ensure a competitive policy framework for all players, the Dairy Act will be amended by 1997 to strengthen the regulatory powers of the Dairy Board. The MALDM will strengthen the livestock development department with a view to providing essential support to private veterinary practioners and others involved in animal health.

3.8 OTHER LIVESTOCK

(a) Bee-Keeping

3.8.1 Kenya's demand for honey is expected to more than double from 30,000 kgs in 1992 to 65,000 kgs by 2000. There is therefore need to increase production through intensified staff and farmer training on improved Bee-keeping Technology and increased use of modern equipment.

3.8.2 In addition to providing communities with food and generating incomes through local sales, honey and bees-wax are important ingredients for the manufacture of pharmaceuticals, paints, polishes and oils. These potentials will be explored in furtherance of the national objective of industrialization.

(b) Exotic Livestock

3.8.3 Domestic production of non-domesticated animal products - such as ostriches, crocodiles and snakes - has been on the increase in Kenya. Cropping for venison earns the country foreign exchange equivalent to Kshs. 10.2 million annually, while game farming of ostriches and crocodiles generates some Kshs. 12 million and Kshs. 45 million respectively in revenue. The sector has the potential to earn revenue to the tune of Kshs. 90 million by the year 2001 if fully exploited. In order to develop the exotic livestock sector, reforms will be introduced with respect to user rights for land owners, the removal of tariff and regulatory barriers, the establishment of fora for enforcing codes of professional conduct, and advisory units to assist communities and land owners in identifying and implementing appropriate utilisation options.

3.8.4 The Wildlife Act will be amended to encourage exotic livestock farming in recognition of its potential in revenue generation. KWS will undertake to harmonise wildlife policies and to eliminate policies and laws that limit expansion. In addition, KWS will assist farmers and NGOs to put up and maintain infrastructure. In order to ensure that exotic farming does not degenerate into legalised poaching, a comprehensive set of guidelines will be set up by the MALDM and the KWS.

3.9 IRRIGATION

3.9.1 One of the major problems in Kenya's agricultural sector is over-dependence on rainfed agriculture. Given that 80 per cent of the country's land surface falls under ASAL areas, irrigation is crucial to the development of agriculture. Of the several large schemes covering some 9,023 hectares, only the gravity fed Mwea-Tebere scheme has had positive cash flows. Irrigation, however, can make appreciable contributions to the country's agricultural goal of food security, raise rural incomes, and generate employment opportunities. One area of significant potential for irrigation in Kenya's agricultural sector lies in horticulture. Horticultural exports earned the country an estimated Kshs. 3.6 billion, Kshs. 3.9 billion, and Kshs. 10.6 billion in 1991, 1992, and 1995 respectively. About 70 per cent of exported horticulture crops are grown by irrigation.

3.9.2 The bulk of irrigation in the country is undertaken by smallholder farmers who irrigate some 16,700 hectares compared to 9,023 hectares by the large-scale, centrally managed developments under the National Irrigation Board (NIB). Small-holder schemes are associated with the already settled communities, farmer control over irrigation water, high rates of farmer participation, and low development costs. The main constraints however are low yields per hectare and poor systems performance, poor technologies, and inadequate farmer organisations. On the contrary, large scale schemes are associated with higher yields centralised control of production and decisions regarding irrigation, cultivation, and marketing; and high overhead costs. Large scale irrigation has therefore been highly subsidised and has not been cost-effective.

3.9.3 Priority will be given to the consolidation and rehabilitation of existing schemes. Special attention will be directed to the provision of infrastructure, including the installation, operation and management of irrigation infrastructure. For this reason, the National Irrigation Board Act of 1966 will be amended within the Plan period to bring large and small scale irrigation under the same liberalised principles. In addition, the operations of the NIB will be restructured to enable it to become more active in the provision of irrigation infrastructure and extension services to farmers. The MLRRWD will, in addition, initiate programmes to encourage multi-purpose use and re-use of water for irrigation purposes and also to intensify irrigation agriculture because it has been proven that the quality of crops under irrigation agriculture are superior to those under rainfed agriculture.

3.9.4 Currently, Regional Authorities are organised along lines similar to Government departments. This has limited their role in supporting regional development activities, including irrigation. Regional Authorities will be restructured to improve their operations. In particular, their operations will focus on planning for water and power generation, land resources and other infrastructure for irrigation development, while implementation will be undertaken by farmers. The authorities will also assess irrigation technology, especially in the ASAL areas, with a view to finding suitable low cost methods, reducing infrastructural costs of irrigation schemes; and building local capacity in planning, operating and managing irrigation projects. The regional authorities will also encourage the private sector to invest in small to medium scale manufacturing plants to process, store and package agricultural output so as to increase local value added.

3.10 RURAL DEVELOPMENT

3.10.1 Rural areas are characterised by limited employment opportunities, low incomes, and high incidence of poverty. Neglect of rural areas in the process of industrialisation may pose serious problems if rural urban migration accelerates. Two major strategies for promoting rural development are the District Focus for Rural Development (DFRD) and the Rural Urban Balance Strategy. A major organ for the implementation of these strategies is the District Development Committee (DDC).

(a) District Focus For Rural Development Strategy

3.10.2 The main objectives of the District Focus Strategy for Rural Development are to broaden the base of and accelerate rural development, encourage local participation in the Planning process, increase employment opportunities, accelerate development in the districts, and to slow rural urban migration.

3.10.3 Sessional Paper No.1 of 1986, emphasised the need for an integrated development of urban and rural areas to promote economic and social linkages between the urban and rural areas. Local Authorities (county councils, municipal councils, town councils, and urban councils) all have a special relationship with District Development Committees (DDCs). The development programmes of the LAs must be in line with overall districts development strategies. During this Plan period, the DDCs will increasingly play a facilitating role in encouraging new investments in rural areas. To hasten the rate of industrialization, District Industrial Committees (DIC's) will be established in all districts during the Plan period. The DIC's are sub-committees of DDC's responsible for Industrial Development in the districts. In doing so, the rural areas will benefit from increased farm and non-farm employment opportunities, thereby reducing income differentials between urban and rural areas as well as promoting agro-processing industries.

(b) Rural-Urban Balance Strategy

3.10.4 Kenya's urban population has been growing rapidly during the last two decades. The urban structure is also changing from a pattern of urban primacy as reflected by the growth of Nairobi, Mombasa, and Kisumu, to a spatially extensive urban pattern with close linkages to Kenya's agricultural resource base. This pattern of urbanisation will be pursued further during this Plan period.

3.10.5 The distribution of rural urban population, as summarised in Table 3.8, shows that in 1990 the urban population was 4.07 million people accounting for 18 per cent of the total population. The urban population is expected to increase to 7.44 million people by the year 2000 and to 11.5 million by the year 2010, accounting for 23.4 per cent and 26.4 per cent of the total population respectively. In the past, the largest growth in urban population occurred in the big towns of Nairobi, Mombasa, and Kisumu, resulting in pressing needs for food, employment, infrastructure, shelter and other basic services.

Table 3.8: Distribution of Population Between Rural and Urban, 1990-2000 (millions)

	1990	1995	2000
Urban Population	4.07 (18)	5.28 (19.2)	7.44 (23.4)
Rural population	19.43 (82)	22.2 (80.8)	24.36 (76.6)
Total	**23.7**	**27.5**	**31.8**

Note: ( ) denote percentages

3.10.6 Rural industrialisation strategies outlined in this section focus on small towns and their hinterlands as well as on non-farm informal sector activities in order to achieve balanced development and to ameliorate pressure in the big towns. The strategy is intended to foster economic growth in rural areas through strengthening economic linkages between urban areas and their rural hinterland. Primarily, the strategy is concerned with availing employment opportunities to rural populations nearer to where they live and to redirect rural-urban migration to smaller towns by providing employment opportunities there. The strategy also intends to promote informal sector development which is expected to generate off-farm employment opportunities.

The underlying objective is to reduce the gap in income differentials between urban and rural areas.

3.10.7 During this Plan period, the Government will continue to pursue a strategy to promote the development of an urban system that supports the growth of agriculture and the development of rural areas, and generates productive employment opportunities in urban manufacturing and service enterprises. The Ministry of Local Government (MLG) will focus on the central role played by LAs through the Kenya Municipal Reform Programme so that the LAs can effectively develop the small towns. The LAs will focus attention on the provision of infrastructure and an enabling environment to attract private sector investment in small and medium scale industries and to strengthen the links between LAs and the rural hinterlands.

3.11 DEVELOPMENT OF ARID AND SEMI ARID LANDS

3.11.1 ASAL areas make up over 80 per cent of Kenya's total land surface, support over 25 per cent of the human population and over half of the livestock production. The majority of the population in these lands are pastoralists, although semi-pastoral and farming communities have increased due to migration and sub-division of lands. Some ASAL districts have pockets of high agricultural potential where crops can be grown successfully. In such areas, irrigated horticultural production has been encouraged with some positive results. As noted earlier, production of horticultural crops increased from 65 million kgs in 1994 to 75 million kgs in 1995. In the ASAL areas, this has been mainly through demonstration farms using small engine water pumps to irrigate farms.

3.11.2 The use of low cost and appropriate technical packages is key to improved dryland farming. The participation and cooperation of farmers in these areas will be crucial to the development of technical packages that can be replicated to wider areas of the ASAL. Cultivation of drought resistant but high yielding crops will be intensified paying more attention to sorghum, millet, pigeon peas, greengrams and beans. Other crops will include cotton, oil seeds and root crops such as cassava.

3.11.3 Since most farmers in ASAL are small scale in nature, the Government, through the MALDM, NGOs and other stakeholders including the private sector, will encourage use of technologies appropriate in such areas, such as the use of draught animals in ploughing and animal drawn carts. Other policy measures to improve productivity in ASAL livestock resources include:

- improvement of rural access roads in ASAL areas;
- encouragement of private sector investments in slaughter houses in livestock production areas with refrigerated transport of meat to reduce livestock and meat losses;
- promotion of non-conventional livestock activities, like bee keeping;
- development of both surface and ground water sources for both agriculture and livestock, and improvement of water harvesting techniques, including dams; and
- examination of the possibilities of using dam water for generation of hydroelectricity for both domestic and agricultural use.

3.12 AGRICULTURAL SECTOR INFORMATION MANAGEMENT

3.12.1 Information management will be increasingly important in a liberalised economy where the private sector will play a dominant role. Availability of timely and reliable agricultural information is crucial for decision making in both the public and private sectors. The constraints to efficient and timely provision of agricultural information relate to the lack of coordination among the institutions in the sector, inadequate funding, differences in methodology, inadequate standardisation, and inadequate information management and dissemination. In addition, a significant proportion of the data management equipment in public information institutions is outdated.

3.12.2 The MALDM and the Central Bureau of Statistics (CBS) will help institutions to collect and analyse agricultural statistics through the provision of guidelines for data collection. standardization and reporting. In addition, the respective institutions will make regular budgetary provisions, supplemented by user charges as appropriate, for data collection, analysis and dissemination. During the first year of the Plan, the above mentioned institutions will coordinate efforts to harmonise and standardize their data bases for ease of data transfer and to promote comparability.

CHAPTER 4

NON-AGRICULTURAL PRIMARY INDUSTRIES AND RELATED RAW MATERIALS

4.0 INTRODUCTION

4.0.1 Kenya is endowed with various raw materials that can be exploited for the development of processing industries. Unfortunately, many of these resources remain undiscovered, under-utilized and/or mismanaged particularly in forestry. As a result, there is a need to take stock of the country's raw material endowment, and to map out strategies for productive exploitation for purposes of fast industrialization. Whereas natural resource endowments alone may not provide economic justification for setting up such industries, the country can nevertheless select those processing industries in which there are operational and technological capabilities such as those earmarked for implementation in "Phase One" of the Sessional Paper No. 2 of 1996. These types of industries are discussed in section 4.1 below.

4.0.2 Analysis of inter-industry linkages in 1990 revealed a high degree of dependence of various sub-sectors on imported raw materials, particularly intermediate inputs. This was due to the fact that earlier import substitution policies discouraged the establishment of industries producing such products. The few that were established performed poorly and remained inefficient, exhibiting high costs of production. Efficient local production of raw materials and intermediate inputs is one way of stabilizing costs of production. This Plan emphasises the development of raw materials to create the "deepening" and "linkages" necessary for sustainable export-oriented industrial sector that is capable of competing in both domestic and export markets.

4.0.3 This Chapter focuses on the primary industries already identified in Sessional Paper No 2 of 1996. The Chapter outlines policy strategies aimed at productive exploitation of domestic raw materials for purposes of rapid industrialisation.

4.1 PRIMARY INDUSTRIES

4.1.1 The Manufacturing sector has been recognised worldwide as one of the most dynamic forces contributing to industrial transformation and consequently to economic growth. The Sessional Paper No. 1 of 1986 on *Economic Management for Renewed Growth* considers the sector as the engine for rapid economic growth, while Sessional Paper No. 1 of 1994 on *Recovery and Sustainable Development to the Year 2010* views manufacturing, particularly primary industries, as the major source of long-term economic growth. These industries are characterised by strong forward and backward linkages, high domestic input content and potential for high export earnings.

4.1.2 Kenya's path to becoming one of the newly industrialised ions must be established on a sound raw materials base taking into unt the weak forward and backward linkages now characteristic of nanufacturing sector. Consideration must also be given to the tional constraints and technological capacity of the country. sequently, over the next five years emphasis will be placed on ansion and new investment in light manufacturing, resource based industries in which the country has both operational and technological capabilities, while laying the groundwork for intermediate and capital industries.

4.1.3 In the past, little attention has been given to acquiring technologies appropriate for the manufacturing and processing of primary commodities like coffee, cotton, leather, sugar, pyrethrum, tea, fish, wood, minerals, solid waste, and wildlife. Priority will now be given to value added industries processing these primary commodities. Hence, deliberate efforts will be made and incentives put in place during this Plan period to attract private foreign and domestic capital into small and medium scale industries to utilise both agricultural and non-agricultural raw materials. Industries based on traditional farm products have already been discussed in Chapter 3. Specific policy strategies are addressed in the following sections of this Chapter.

4.2 FOREST RELATED RAW MATERIALS

4.2.1 Kenya has two main sources of forest related raw materials. These are the plantations, and the farmlands and settlements. These sources of raw materials provide the base for wood-based and non-wood based forest related industries.

4.2.2 Over the years there have been changes in the choice of plantation species, as a result of changes in end-use objectives. The main tree species grown in Kenya include Cypress (*Cupressus lusitanica*), Pine (*Pinus patula*) and Eucalyptus (*Eucalyptus saligna*). These plantation species account for about 86 per cent of all the area planted, while other auxiliary species account for 14 per cent. Forest plantations cover an area of 170,000 hectares of which 6,000 hectares have been harvested and are not yet replanted. Until recently, the rate of harvesting industrial wood exceeded the average rate of replanting. Failure of plantations since the mid 1980's is threatening the long-term supplies of industrial wood in the country.

4.2.3 Farmlands and settlements as a source of forest raw material cover an area of 8.5 million hectares, including urban land. It is estimated that, on average, the farmlands and settlements contain about 7.9 cubic meters per hectare of wood biomass, increasing at an annual rate of 0.46 cubic meters. This is another source of forest related raw materials, in addition to the plantations, that can be harnessed for industrialisation purposes.

(a) Demand and Supply of Wood

4.2.4 The projected wood demand and supply balances for the period 1995 - 2000 are summarised in Table 4.1. The table shows that the country will meet its wood requirements in the short run although some of the supplies will come from non-sustainable sources. Beyond the year 2000, it is expected that total wood supplies will not be able to keep pace with wood demand. The deficit will manifest itself in a shortage of fuelwood, leading to the use of industrial wood as fuelwood.

Table 4.1: Projected Wood Supply and Demand, 1995-2000 (000M³)

	1995	2000
Wood demand		
Industrial wood	1,058	1,209
Poles and posts	1,219	1,435
Fuelwood	20,107	23,947
Total wood demand (1)	22,384	26,591
Sustainable Supply		
Indigenous forests	1,942	1,905
Woodlands and bushlands	11,240	11,157
Farmlands and settlements	7,437	9,373
Forest plantations	2,121	2,494
Total Sustainable Wood Supply (2)	22,740	24,929
Non Sustainable Supply	283	414
Fuelwood Substitutes	2,011	2,395
Total wood supply (3)	25,034	27,738
Surplus/Deficit (3 - 1)	2,650	1,147

(b) Forest Industries

4.2.5 The forest industry faces the problems of depletion of hardwood stocks, inaccessibility to some sources leading to over-harvesting in accessible areas, low optimal usage due to lack of integrated forest industries, low recovery rates of 30 - 40 per cent due to technological and labour inadequacies, pollution caused by residue disposal problems and specific supply shortages of important types of wood, such as wattle.

4.2.6 To tackle these problems, several strategies and actions will be put in place during the Plan period. These include:

- The Ministry of Environment and Natural Resources (MENR) through the Department of Forestry will restructure wood procurement practices to encourage integrated harvesting to facilitate optimal allocation of logged volumes to industries as well as to facilitate the full utilization of forest stocks.

- The Investment Promotion Centre (IPC) will promote investment in the pulp and paper sub-sector as well as in those aspects of mechanical wood products where Kenya is internationally competitive.

- The Government, through the MENR, is at an advanced stage in drafting a Forestry Act based on the Forestry Master Plan that will enable the Department of Forestry to come up with strategies to tackle the shortcomings on the raw material front as well as to provide it with legal muscle to enforce these decisions.

- Farm forestry will be promoted for smallholder farmers by Kenya Forestry Research Institute (KEFRI) with the target of accelerating the rate of acreage growth.

- Pollution control will be encouraged through innovative schemes to use waste as an industrial raw material and will be an area of research for KIRDI.

- To boost the efficiency of the Jua Kali users of forest products, the Ministry of Research Technical Training and Technology (MRTTT) will come up with modalities of financing the upgrading of their equipment, while the MENR will promote farm level expansion of tree planting.
- The Government is at an advanced stage in preparation of Environmental Impact Assessment guidelines and the related institutional and legal framework for all future development projects in the country.

4.2.7 Additional steps will be taken on the marketing ar institutional fronts. The Export Promotion Council (EPC) will provi information on markets, prices, and quality requirements to the priva sector. On the institutional front, the MENR will put in place polic and legislative measures to facilitate the acquisition and leasing of lar by plantation-dependent industries by 1998. The monopoly of th Department of Forest with respect to authority, management an conservation will be reviewed. Firstly, an institutional capacity analys will be carried out under the aegis of the MENR to ascertain th institutions that can participate in forest management. This will be don by end 1997. Secondly, a comprehensive reorganisation will be carrie out to ensure that the Department of Forestry's responsibilities match it capabilities and that the regulatory, conservation, support and relate functions of the MENR are conducive to a rapid private sector le growth of the sub-sector.

4.3 FISHERIES

(a) Lake Victoria

4.3.1 The aggregate landings of fish from inland waters has grown over the past twenty years. Reported landings from Lake Victoria account for about 98 per cent of production from Kenya inland lakes, and account for about 93 per cent of all the fish landed.

4.3.2 The eight Kenyan rivers which flow into Lake Victoria drain about 47.5 per cent of Kenya's total run-off. An important feature of the Kenyan portion of the Lake is the Nyanza gulf which is encircled by densely populated Nyanza and Western Provinces. There are about 177 species of fish in the Lake of which 127 are Cychlids, mostly the Haplochromis species. However, these are no longer of commercial significance having been displaced largely by newly introduced species.

4.3.3 The species composition in the Lake has changed drastically over the past twenty years. Today, Nile perch and tilapia have established themselves to the extent that they now dominate commercial fisheries of the Lake. Due to the predatory nature of the Nile perch and destructive fishing methods in the Lake and rivers at critical stages of the reproductive cycle together with the pollution caused by both agricultural and industrial activities, there has been a substantial decline in the number of species available in Lake Victoria. One clear thing from these upheavals of the past decades is that, the multi species fisheries has coalesced into essentially three fishery species - the Nile perch, tilapia and *Omena.*

4.3.4 Currently, fish production levels in the Lake are considered unsustainable and that a potential collapse of Nile perch fishery is imminent. It is estimated that a significant proportion of the landings in Kenya originate from outside the gulf.

(b) Other Lakes

4.3.5 Other inland lakes contribute 7 per cent of total landings. This is expected to decline given that Lake Turkana is threatened by the ongoing damming of the Omo river in Ethiopia as well as the damming of the Turkwel and Kerio rivers. Production from Lake Naivasha has also been declining due to a number of reasons including declining water levels, salvinia infestations and over fishing. Lake Baringo on the other hand, faces extinction from silting and damming of major river inlets for use in irrigation, while Lake Jipe is drying up from siltation.

(c) Marine Fisheries

4.3.6 Despite having a coastline of 680 kms, Kenya's marine fishing has not matched inland catches for many reasons. These include over-exploitation of the inshore fish potential and inability to exploit the offshore fish stocks. The inshore fisheries contain an estimated 12,000 tonnes, while the offshore fisheries, which include the Exclusive Economic Zone (EEZ), have a potential of up to 200,000 tonnes in tuna and tuna-like species. Currently, the annual marine fish production landed from inshore waters fluctuates between 5,000 to 7,000 tonnes. The full potential of the EEZ is yet to be exploited by Kenya.

(d) Aquaculture

4.3.7 In view of the fact that annual catches have be declining in inland lakes as well as in marine inshore fisheries, it necessary to focus attention on aquaculture development. The curre annual fish production from aquaculture is only 1,190 tonnes.

(e) Constraints to Industrialisation

4.3.8 Presently, there are over 45,000 fishermen in the countr Industrialisation of this sector is expected to have a profound impact o the welfare of these people. However, a number of prevailin constraints inhibit the development of the sector. These include firs the bulk of landings are by artisanal fishermen using traditional boat The main factor that inhibits modernisation, and hence conversion t commercial fishing, is the lack of capital. Second, environmental facto such as siltation, undesirable weeds such as hyacinth in Lake Victori climatic changes, variations in water levels, and pollution have had, an continue to have, profound negative effects on efforts toward industria isation. Third, a worsening situation with respect to capture equipmen replacement caused by inadequate supply of hardwoods is a mai concern to boat builders who have yet to find appropriate substitute Fourth, important infrastructure such as landing ports and access wad water supply, sanitation, cold storage, transport means and electricit supply, which are essential for modern industrialisation in the sub-secto are lacking. Finally, aquaculture is still primarily a subsistence activity

(f) Strategies

4.3.9 During the plan period, the Government will mak deliberate efforts to encourage sustainable exploitation of fisheries, b paying special attention to more value adding industries. The Fisherie Department will, in addition, strengthen the enforcement of rules an regulations within the Kenya fishery waters with special emphasis o Lake Victoria.

4.3.10 The private sector is expected to play a more active rol in processing activities by investing in fish filleting, fish canning, smoke fish, fish meat, skin tannery, and other fish by-products. The Fisherie

Department will specifically undertake the following activities during this Plan period.

- Fish farming surveys.
- Environmental protection programmes in and around fishery water bodies. This will include liaising with other agencies to address de-siltation of lakes, especially Baringo, Naivasha, Turkana and Jipe.
- Control of water weeds on Lake Victoria and Lake Naivasha
- Fisheries applied research especially on capture and culture fisheries, and production of fish feed and seed, and re-stocking programmes
- Stock assessment surveys in both inland and marine waters to raise Kenya's fisheries database to the international level
- Indian Ocean Coastal Zone management programmes.
- Infrastructure development in and around landing points. This will involve construction and maintenance of access roads, bandas, cold storage and ice-making plants in addition to rural electrification and provision of social services and amenities.

4.4 WILDLIFE UTILISATION

4.4.1 Wildlife is a major resource for the country which can be exploited economically for industrial development. Wildlife in Kenya is state owned, even though, only 8 per cent of the country is gazetted as wildlife protected areas. Most wildlife, however, is found outside the protected areas for most of the year. Ownership issues raise concerns in terms of mobilising communities in the conservation and management of a resource they do not own. In Kenya, wildlife share much of the land with man but the rapid population growth, re-distribution of land from large scale, extensive rangelands use to intensive agricultural use and damage to natural resources have all threatened the survival of wildlife populations. Important wildlife dispersal areas are threatened with land sub-division, agricultural expansion and unplanned development of tourist accommodation, thus increasing human-wildlife conflicts.

4.4.2 Two challenging concerns with regard to wildlife utilisation are wildlife management and bio-diversity conservation. In the 1990-96 Policy Framework, the Government identified three basic goals, namely: to conserve the natural environments of Kenya; to use the wildlife resources of Kenya sustainably for the economic development of the nation and for the benefit of people living in wildlife areas; and to protect people and property from injury or damage caused by wildlife. These goals, will be pursued and implemented during this Plan period in collaboration with KWS.

(a) **Policy Strategies**

4.4.3 During this Plan period, specific policy strategies that will be pursued include:

- KWS will undertake the harmonisation of wildlife policy and legislation, taking into consideration other conflicting policies and laws that may hinder wildlife utilisation, by 1998.

- Punitive measures stipulated in law for various offenses will be reviewed and, where possible, replaced with economic incentives to match the changing socio-economic circumstances.

- Infrastructural support through training and education are among the most urgent capacity building needs of the Wildlife Associations. Non-Governmental Organisations (NGOs) will be identified by Kenya Wildlife Services (KWS) and supported to carry out this responsibility. KWS, through Community Wildlife Services (CWS), will also dedicate funds for community training. This will begin in 1997.

- The devolution of user rights to the respective District Wildlife Associations will be investigated by the KWS with a view to reducing management commitments of the KWS and simultaneously giving economic benefits to community managers. The KWS will also set up a committee to investigate the modalities of a vetting system for granting user rights in 1997.

- The KWS will review land preservation orders and legislation in order to protect areas important for wildlife conservation, increase involvement of local communities in the monitoring of compliance to use of rights, support development of industrial capacity in wildlife utilisation and develop guidelines and strengthen research which may affect wildlife utilisation.

4.5 MINERAL BASED RAW MATERIALS

4.5.1 The search for and exploitation of mineral resources in the country is regulated by a number of Mining and Minerals Acts. In the mineral legislation, the ownership of minerals in Kenya is vested in the Government and this includes minerals found within Kenya's continental shelf, territorial waters and the Exclusive Economic Zone. The contribution of mining to GDP is less than one per cent and is mainly from non-metallic minerals, such as Soda Ash and Fluorspar. Increased investments in the mineral sector will promote and provide raw materials to local industries, create employment opportunities and support domestic manufacturing, as well as mineral exports.

(a) Mineral Occurrence in the Country

4.5.2 A wide range of minerals are known to occur in Kenya. These are the Soda Ash, Fluorspar, Barite, Gypsum, Salt, Dimension stones, Silica sand, Kisii stone (soapstone), Manganese, Zinc, Wollastonite, Graphite, Kaolin, Copper, Nickel, Chromite, Pyrite, various Clays, rare Earth elements and Phyrochlore, most of which have yet to be exploited. These minerals are found in the several geological environments summarised below:

- Archaen Nyanzian Shield area of Western Kenya where metallic mineralisation is common in base and precious metals. Also potential for ferrous and non-ferrous metals.

- The Proterozoic Mozambique Belt that is most extensive in Kenya Central North to South in which metamorphic minerals such as kyanite, corundum, graphite, wollastonite, marble, kaolin and a variety of gemstones are found together with minerals associated with basic and granitic rocks, such as mica and iron ore etc.

- The Sedimentary rocks are also widespread and range from Palaeozoic to recent. They are possible sources and hosts of hydrocarbons, limestone, gypsum, clays, manganese and construction materials. Base metal mineralisation, lead-zinc, are known to occur in the sedimentary basin along the coastal belt. Heavy mineral sands also occur along the coastal beach sands.

- The Volcanic rocks associated with the rift system host and yield a variety of minerals and construction material. The volcanic-sedimentary accumulations have deposits of clays, trona (soda ash) diatomite, natural carbon dioxide, kunkar and gypsum. The geothermal fields are found in the area.

(b) Potential for Rapid Industrialisation

4.5.3 Industrial minerals refer to non-metallic rocks and minerals used in industrial processes and products, as well as in construction, civil engineering works, agriculture and oil exploration. Most of them have high bulk volume and comparatively low intrinsic value, and can only be exploited if they are located near the consuming market. Examples of such non-metallic minerals include fertilizer minerals, chemical minerals, ceramic minerals, filler and insulator minerals, refractory and flux minerals, building and construction mineral materials, cement raw materials, gemstones, and fuel minerals.

4.5.4 Mineral exploration and exploitation of non-fuel minerals are presently carried out under the auspices of the Mining Act which was promulgated in 1940. To enhance investment in mineral exploration, a review of the Act was initiated in late 1993 and is expected to be completed soon. The aim is to ensure that the Act matches the contemporary international mining practices. It will also provide for greater environmental protection from the undesirable effects of mining activities.

4.5.5 Presently, the Mines and Geological Department is undertaking a number of activities which include:- Review and development of mineral laws; Regional Mapping and exploration; encouragement of Industrial Mineral prospecting and exploitation to local miners; evaluation and investigation of mineral deposits using drilling rigs and other tools; and Rehabilitation of disused mines and quarries, among other things. To date, over 90 per cent of Kenya has been geologically surveyed, and geological reports and maps produced are available for sale. During the Plan period the MENR and the Department of Resource Surveys and Remote Sensing (DRSRS) in OVP&MPND will complete the geological survey exercise whose data will be used by the IPC to promote private sector investment.

4.5.6 Carbonatites are hosts of several minerals and are found in the Nyanzian Shield area, around the Lake Victoria shores and in the southern part of the coastal sedimentary basin. Mrima, one of the carbonatites known for potential niobium and rare earth elements (REE) is found in the coast basin, south of Mombasa.

4.5.7 Despite the current low contribution of the mineral sector to the GDP, there is significant minerals potential that merits promotion. As the economy is liberalised, investors are expected to take the favourable opportunity to invest in mineral exploration and mining.

(c) Main Mineral Commodities

4.5.8 A number of mineral commodities have been exploited in the past, or are currently being exploited, and some have great potential for exploitation for industrial use. Of these soda ash, fluorspar, natural carbon dioxide, gypsum, and lead have already been exploited both for export and for use as raw materials in various local industries. Specifically, soda ash, natural carbon dioxide, gypsum and lead have been utilised to support local industries.

4.5.9 Mineral commodities that offer greatest potential for future exploitation include lime and limestone, diatomite, and gold. These commodities are known to occur in substantial quantities.

4.5.10 The private sector will be the main vehicle for minerals development in the country. The role of the Government will be that of promotion, encouragement and regulation of the private sector investment in the mineral sector by providing basic geological data and necessary fiscal incentives.

4.6 WASTE AND OTHER RAW MATERIAL SOURCES

(a) Waste Production and Treatment

4.6.1 By the year 2000, increasing numbers of people will be living in towns and cities. Rapid population growth and the resulting pressure on land (urban and rural) have led to a rapid increase in discharged waste. It is therefore no longer feasible to dispose of waste by natural means. As a result, there is an urgent need for effective use of waste as a source of raw material, if only to minimise its environmental impact. Solid waste can be divided into organic and inorganic. Organic waste, which accounts for over 50 per cent of urban waste, is bio-degradable and can be used as raw material, especially for compost production. Inorganic waste, however, is not bio-degradable. Such wastes vary, but they are usually industrial in origin and dominated by plastic.

4.6.2 Given the volume of waste production, especially in urban centres, there is the need to adopt waste treatment and a sound management approach focusing on generating as little waste as possible; recycling waste to such an extent that the level of the final waste generated is limited; and ensuring that appropriate technology is used to avoid environmental destruction and to maintain economic feasibility of such technology.

(b) Potentials for Waste Processing

Organic Waste

4.6.3 Private garbage collection firms are able to process some of their own organic waste for compost production, but due to restrictions imposed on them regarding where they can dump their garbage, this opportunity remains unexploited. Municipal authorities, which control dumping sites, limit themselves to dumping garbage and incinerating uncollected waste. Consequently, organic waste is generally under utilised.

4.6.4 There is a need to assess the quantities of various agricultural wastes to identity their economic viability with a view to encouraging their exploitation. During the Plan period, and before the end of 1998, the Ministry of Commerce and Industry (MCI), in collaboration with MLG and MENR, will co-ordinate a study to achieve this primary objective.

Inorganic Waste

4.6.5 The rapidly growing use of plastic products has generated substantial amounts of plastic waste. Plastics have the advantage of being highly mouldable and cheap. In addition, they have a stable chemical property, and are suitable for mass production. As a consequence, they have many practical uses and hence pose a problem both in big cities and in villages. Some plastic debris can be recycled while others can only be incinerated, requiring substantial thermal energy.

Policy Strategies

4.6.6 Given the high volume of waste discharge associated with industrial development, there is need to utilize discarded plastics as raw materials. To carry out recycling efficiently, it is necessary to conduct a study on subjects such as methods for collecting used products and the potential markets for using recycled products.

(c) Agricultural Waste

4.6.7 Vast quantities of agricultural waste exist in the country in amounts viable for commercial exploitation. Agricultural wastes with a high calorific value, for example, rice husk, bagasse from sugar manufacture, saw dust from sawmills, and coconut shells, can be used as fuel for firing small scale kilns in the manufacture of building materials (i.e. bricks and tiles) and lime.

·.8 Rice-husks can also be used as a pozzolanic additive to ·rtars and plasters, reducing the need for cement, and lowering the ·bodied energy requirements. Rice-husk ashes can also be used as ·atural glaze for ceramics. Efforts should be made to quantify the ·mounts generated by rice growing areas, such as Mwea and Ahero irrigation schemes, for exploitation.

(d) Briquetting

4.6.9 Most agricultural residues are costly to transport and relatively difficult to burn in their natural state. When briquetted, the density of residues such as saw dust, rice husks, groundnut shells and wood chips is more than doubled, drastically reducing transport and handling costs, and easing combustion. Bulky biomass materials can be dried and reduced in size by chipping before they are briquetted. Small powered briquetting machines, and animal-and-human-powered machines are also available with capacities as low as 10kg per hour.

4.6.10 During the Plan period, technologies that are available will be publicised in this field. KIRDI will simultaneously spearhead investigations on which materials are available in commercially viable quantities, while the Ministry of Finance (MOF) and the MCI will work out modalities to encourage the use of waste raw materials.

(e) Other Secondary Waste Materials

4.6.11 The challenges of attaining NIC status require that a strong raw material base be developed. Central to achieving this objective is the need to develop a sound metallurgical industrial base. A feasibility study, to be coordinated by the MENR and MCI, will be carried out within the first two years of the Plan period on exploration, evaluation and utilization of the available metallugical raw materials in Kenya.

CHAPTER 5

PHYSICAL INFRASTRUCTURE

5.0 INTRODUCTION

5.0.1 An efficient network of physical infrastructure in both urban and rural areas is a crucial requirement for the economy to achieve an annual GDP growth rate of 5.9 per cent during the next five years. The acceleration of industrial development and rapid growth of agricultural, commercial and other sectors of the economy on the scale envisaged in this Plan calls for increased efficiency in the management of energy, transport and communications, water and land on a sustainable basis. A robust network of infrastructural facilities is essential for the internal integration of the country.

5.0.2 The Government's recognition of the overriding importance of this sector is demonstrated by the heavy investment it has made in it since independence. At the moment, most of the basic infrastructural facilities that are necessary for the attainment of an economic "take-of" are already in place. Their development has been undertaken, moreover, with the primary objective of promoting a balanced rural and urban development in order to stimulate economic activities and to improve human welfare throughout the nation. The Government will continue to pursue this policy under the District Focus Strategy for Rural Development (DFSRD) in order to minimize excessive urban congestion through rural-urban migration and to strengthen the country's productive capacity.

5.0.3 While past efforts have succeeded in increasing the stock of infrastructure, the deteriorating quality of the facilities now in place poses a major challenge to the Government. Further development of new facilities and proper maintenance of the existing ones have been constrained by various factors. These include the growing demand for infrastructural services arising from rapid population growth and urbanisation, limited financial resources; and inadequate management capacity. In order to ensure sustainable development in the sector, therefore, the Government has placed emphasis on increasing the efficiency and quality of existing infrastructural facilities. Development of new facilities in this sector will be limited to projects that fill critical supply gaps, those that remove development constraints in specific sectors or those comprising rehabilitation, upgrading or modernization of existing ones in order to improve their efficiency. Where new facilities have to be developed, this will be undertaken on a cost recovery basis.

5.0.4 The Government will continue implementing the above policies during the 8th Development Plan period. In order to transform Kenya into a NIC by the year 2020, however, it is imperative that policies formulated for the infrastructure sector in the Policy Framework Paper and in this Plan Chapter should be strictly observed. The Chapter reviews policies on energy, transport, water and sanitation and land.

5.1 ENERGY

5.1.1 An adequate and reliable supply of energy is not only a basic pre-requisite for the development of the industrial, commercial, and agricultural sectors, but it is also important for domestic use. Presently, major sources of energy in Kenya are petroleum fuels, electricity, wood fuel (i.e. fuel wood and charcoal) and, to a lesser extent, solar energy, wind, ethanol, coal and biogas. Considerable potential also exists for further development of solar, wind and biogas energy sources for both commercial and domestic use. There is a growing interest in developing nuclear energy as a possible source of energy for the future. Petroleum fuels and electricity are currently the major sources of commercial energy. Their steady and adequate supply is therefore crucial in supporting the strategy of rapid industrial development envisaged in the Plan.

5.1.2 Table 5.1 below indicates that Kenya's total demand for industrial and commercial energy has been rising steadily from 2.6 million Tonnes of Oil Equivalent (TOEs) in 1991 to over 3.0 million TOEs in 1995, representing a growth rate of 3.7 per cent per annum. Imported energy, comprising crude petroleum, coal and coke as well as hydro-electric energy (imported from Uganda) constitutes about 72 per cent of the total commercial energy used, leaving a balance of 28 per cent to be supplied from domestic sources, i.e. from hydro and geothermal energy sources. Net imports of liquid petroleum are by far the most important source, accounting for an average of 1.9 million TOEs per year during the last five years and accounting for 67.3 per cent of total commercial energy requirements for the country. Electricity from both hydro and geothermal sources, totalling an annual average of 830,000 TOEs is second in importance to petroleum fuels, satisfying around 29 per cent of total demand. Production from both sources account for about 94 per cent of total Kenyan consumption, with a balance of about 6 per cent (or 51,000 TOEs) being imported annually from Uganda. In order to support rapid industrial development, a steady and adequate supply of commercial energy must be maintained.

Table 5.1: Demand for Industrial and Commercial Energy by Sources **, 1991 - 1995 ('000 TOEs)

Primary Source	1991	1992	1993	1994	1995*
Liquid Fuels(Net Imports	1,755.1	1,839.3	1,826.3	2,009.8	2,066.5
Coke and Coal (Imports)	93.7	98.6	87.6	76.0	96.8
Hydro and Geothermal Energy (Local Production)	738.7	736.3	783.6	818.9	819.1
Imported Hydro Energy	32.2	57.6	65.5	53.4	44.9
Total	2,619.70	2,731.80	2,763.10	2,958.10	3,027.30

* Provisional
** Modern Sector Only. Fuelwood and Charcoal Excluded

(a) Electrical Energy

5.1.3 Kenya's electric power is generated from hydro, thermal and geothermal plants. As Table 5.2 shows, hydro electric supply currently accounts for 629 Megawatts (MW) or nearly 75 per cent of the total domestic installed capacity of 822 MW, while thermal oil accounts for about 18 per cent of the total. Electricity from geothermal energy at the Ol Karia plant in the Rift Valley supplies 45.0 MW (or 5.4 per cent of total capacity). In addition, Kenya imports an average of about 30 MW from Uganda annually.

Table 5.2: Installed Power System Electrical Capacity*, 1991-1995 (MW)**

Source	1991	1992	1993	1994	1995+
Hydro	629	629	629	629	629
Thermal Oil	168	144	144	147	148
Geothermal	45	45	45	45	45
Total	842	818	818	821	822

Notes: * Includes imports from Uganda
** 1 Megawatt (MW) = 1,000 Kilowatts = 1 million Watts

5.1.4 Total installed electrical capacity has grown over the last 10 years from 572 MW in 1985 to 822 MW in 1995, including supply from Uganda. This growth was due to the development of several power projects namely, the Kiambere (144 MW), Turkwell (106 MW) hydro plants and the Kipevu (30 MW) gas turbine plant. Electricity generation over the last 10 years has also increased from 2,160 Gigawatt Hours (GWH) in 1984/85 to 3,866 GWH in 1994/95. Electricity sales have increased during the last 5 years from 2,784 GWH in 1990/91 to 3,223 GWH in 1994/95, a growth rate of about 3.7 per cent per year. Between 1996 and 2001, demand for electricity is projected to grow at an average of 4.9 per cent per annum.

5.1.5 Kenya's current electricity generation capacity is inadequate, with demand regularly exceeding supply during peak periods. The supply problem is particularly serious during the dry seasons when the dam reservoir levels are low, or when some of the generating plants break down or are out of service for maintenance. On such occasions power has had to be rationed. Such rationing normally has harmful effects on the productivity of most sectors of the economy and discourages additional investments in the country.

5.1.6 In order to alleviate this problem, five major power projects with a combined capacity of 338 MW will be added to the system during the period 1997 - 2001. These projects are shown in Table 5.3.

Table 5.3: Planned Power Generation Projects, 1997-2001

Project	Generation Capacity (MW)
Kipevu I Diesel Plant	75
Ol Karia II Geothermal Plant	64
Sondu - Miriu Hydro Plant	60
Kipevu II Diesel Plant	75
Ol Karia II Geothermal Plant	64
Total	338

5.1.7 The first three projects (Kipevu I, Ol Karia II and Sondu-Miriu) will be implemented by the Government through the power sector public enterprises, while the other two projects are expected to be implemented by private sector investors, commonly referred to as the Independent Power Producers (IPPs). In addition, a stop-gap thermal unit of about 50 MW capacity is planned for commissioning during the early part of the Plan period. The plant is intended to reduce the power supply deficit to manageable levels before the first of the five plants become operational. The Ministry of Energy will facilitate the implementation of these projects. Table 5.4 shows the planned expansion of the country's inter-connected power generation system between 1996/97 and 2000/01 fiscal years.

Table 5.4: Planned Electricity Generation Capacity, 1996/97 - 2000/2001 (MW)

Source	Fiscal Year Ending June				
	1996/97	1997/98	1998/99	1999/2000	2000/2001
Hydro*	629.0	629.0	629.0	702.0	702.0
Geothermal	45.0	45.0	45.0	109.0	173.0
Thermal Steam	76.0	76.0	76.0	63.0	63.0
Diesel	48.0	98.0	98.0	244.0	244.0
Wind Turbine	0.35	0.35	0.35	0.35	0.35
Total Capacity**	**798.4**	**848.4**	**848.4**	**1,118.4**	**1,182.4**

Notes: * Includes imports from Uganda, ** Effective (operational) capacity will depend on hydrological conditions and plant maintenance outages

5.1.8 The Government will implement further measures in the power sub-sector with a view to improving the supply of electricity in the country. These measures include the separation of regulatory functions in the electricity sub-sector from commercial functions and adjustment of electricity tariffs to the equivalent of 75 per cent of the long-run marginal costs (LRMC), in order to facilitate mobilization of resources, encourage economic consumption of electricity and attract private sector investment in the sub-sector. The Ministry of Energy and the Treasury will also facilitate the signing of a performance contract with each of the public sector entities in the sub-sector. While these measures will avail electricity to most of the existing commercial consumers, especially in the urban areas, it will still be necessary to expand electricity connections to many parts of the rural areas. Towards this end, the Ministry of Energy will accelerate the implementation of the Rural Electrification Programme on the basis of recommendations of the on-going study on the Rural Electrification Master Plan.

5.1.9 Kenya has been supplementing its domestic electric power supply with imports of 30 MW from Uganda under an agreement signed in 1954. In the light of the strengthened cordial relations among the partner states under the East African Co-operation arrangements, the Government will explore the possibility of further supplementing its power requirements from any other source considered economic. Cooperation, through cross-border joint ventures in this sub-sector, will therefore be promoted.

(b) Petroleum

5.1.10 As a non-oil-producing country, Kenya continues to depend on imported petroleum fuels which currently account for abcut 67 per cent of the country's total consumption of industrial and commercial energy. Domestic consumption (sales) of petroleum products has grown from 1,755 thousand tonnes in 1991 to 2,067 thousand tonnes in 1995, a growth rate of 4.2 per cent per annum. The bulk of this demand comprised sales to retail pump outlets and the transport sub-sector, tourism, industrial and commercial enterprises which altogether consumed over 94 per cent of the total demand for petroleum fuels during that year. Demand for petroleum products is projected to grow at 3 to 5 per cent per annum during the Plan period.

As part of the market reform process, the Government liberalized procurement, distribution and pricing of petroleum products in October 1994 in an effort to create competition for petroleum products and improve their supply. During the Plan period, the Ministry of Energy will continue to implement further reforms including divestiture of the Kenya Pipeline Co. Ltd. and elimination of the suspended import duty on petroleum imports as soon as the construction of the liquefied petroleum gas storage and handling facilities currently under construction in Mombasa is completed.

5.1.11 Kenya's heavy dependence on imported oil, coupled with the high sensitivity of domestic oil prices to changes in the international oil market prices, has meant that the price of oil is one of the major sources of inflationary pressures in the country. There is a need, therefore to promote efficiency in the procurement, processing, marketing and consumption of oil and to intensify the search for fossil fuels and other sources of energy. The Government will continue to encourage the private sector to explore for hydro-carbons during the Plan period and to promote the development of other energy sources.

(c) Other Sources of Energy

5.1.12 Other sources of energy include mainly renewable energy sources, such as biomass, solar and wind energy. As a source of energy, **Biomass** consists of firewood and charcoal together with wastes of plant products such as sugar bagasse, coffee husks and saw-dust. Wood fuel (i.e. firewood and charcoal), is currently the major source of energy in the country, especially for the rural population for whom it provides about 73 per cent of total energy used. To ensure a sustainable wood supply while at the same time avoiding environmental degradation, the Ministry of Energy, in collaboration with the Ministry of Environment and Natural Resources, will promote on-farm wood production by designing and disseminating an appropriate programme for the development of fast growing trees during the Plan Period. In addition, the Ministry of Energy will continue to promote the efficient use of wood fuel by encouraging widespread use of efficient "jikos" and charcoal production kilns. The projected supply and demand for woodfuel and charcoal are indicated in Chapter 4.

5.1.13 The Government recognises the important need to develop solar and wind energy as additional sources. Although currently these forms of energy contribute only a small proportion of the country's total energy demand, they have a considerable potential for further development as alternative sources of commercial and domestic energy, especially in the rural areas. Their use directly supplements the Rural Electrification Programme, contributes to the reduction of the country's dependence on petroleum and wood fuels and at the same time promotes environmental conservation by minimising deforestation. In this regard, it may be noted, for instance, that Kenya has a considerable potential for developing solar energy for domestic, social and commercial use.

5.1.14 During the Plan period, the Ministry of Energy, in collaboration with the Ministry of Research Technology and Technical Training (MRTTT), will facilitate the commercialization of these energy sources by providing relevant technical information to the private sector and Non-Governmental Organizations. In this regard, the Kenya Industrial Property Organization (KIPO) and the National Council for Science and Technology (NCST) will work together to ensure that the potential for commercial development of these energy sources is fully exploited. The Ministry of Energy, together with the MRTTT will prepare appropriate legislation to facilitate private sector participation in the development, generation and distribution of these forms of energy. It will also undertake data collection and documentation on nuclear energy technology in preparation for its future development as an energy source.

5.2 TRANSPORT INFRASTRUCTURE

(a) Overview

5.2.1 Kenya's transport system comprises five major modes, namely roads, railway, maritime, pipeline and air transport. The transport sector occupies a crucial position in the country's socio-economic development and integration. These transport modes play a key role in integrating the various production and population centres and in facilitating mobility in both rural and urban areas, as well as enhancing human welfare. The road system facilitates transportation of both food and cash crops from farms to the major urban areas and strengthens linkages with marketing and population centres. Rail transport is important for its high haulage capacity, especially for bulky goods over long distances. Air transport not only promotes tourism, one of the leading foreign exchange earning sub-sectors, but is also the main mode for transporting high value imports and perishable horticultural exports. Urban transport is critical to the attainment of high productivity in the manufacturing and other sectors of the economy. Externally, this sector facilitates the export of goods to all countries, promotes trade with the neighbouring countries, several of which are land-locked, and provides them with transit facilities.

5.2.2 Although Kenya's economic transformation through an export-led industrial development will largely depend on the efficiency and sustainability of its transport system in both urban and rural areas, the quality of service has been deteriorating rapidly over the last 10 to 15 years. The main problem in this sector is that although most facilities are already in place, their inefficient operation and management has led to their deterioration to a point where they cannot be relied upon to support economic activities on the scale formulated under this Plan. The Government has already made various efforts to restore efficiency in the transport sector and these efforts will be intensified during the Plan period.

(a) Roads

5.2.3 The road transport network in Kenya currently accounts for over 80 per cent of the country's total passenger and freight traffic. When the country attained independence in 1963, it had an estimated total road network of 150,600 km which consisted of 41,800 km of "classified" roads and 108,800 km of "unclassified" roads. Of the 41,800 km of "classified" roads, only 1,811 km (or about 11 per cent) was bitumenized. Although the "classified" network, which is under the responsibility of the Ministry of Public Works and Housing (MPWH), has been expanded to 63,663 km, only 8,804 km (or 14 per cent) of it has been bitumenized. The "unclassified" roads, consisting of 80,000 km (or 53 per cent) of the total network, are under the responsibility of the Ministry of Environment and Natural Resources (Forest Department), Ministry of Tourism and Wildlife (Kenya Wildlife Services), various county councils and other local authorities. Municipal authorities and the city of Nairobi account for about 7,000 km of roads.

5.2.4 Although in quantitative terms Kenya has one of the most impressive road networks in East Africa, the deteriorating condition of this network over the last 10 to 15 years due to inadequate maintenance is now one of the most serious constraints to the development of the economy since it leads to high vehicle operating costs, unstable delivery schedules, low investment in the transport sector, all of which seriously affect productivity in all economic sectors. High transport costs are reflected in many aspects of the economy and may lead to high production costs, uncompetitive exports and high costs of imported inputs and capital goods. The rapidly deteriorating road conditions are increasingly rendering the roads incapable of supporting the growth of economic activities.

5.2.5 Causes of Kenya's poor roads include inadequate funding from the Government for both periodic maintenance (resealing and regravelling) and for routine maintenance. The share of road maintenance expenditure to total road expenditure on roads (both maintenance and development expenditure) fell from 31 per cent in fiscal year 1984/85 to only 19 per cent in fiscal year 1987/88. Other factors contributing to road deterioration were increased traffic volume, high axle loads, overloading, and inadequate capacity in railway transport. Available information also shows that despite the growing road deterioration, priority has continued to be given to funding of new roads (at an average cost of Ksh. 20 million per km for bitumen roads) with little attention given to the maintenance or rehabilitation of existing ones. Moreover, although total revenues from the road transport sector through fuel taxes, motor vehicle import duties, licences and fees have been rising considerably as a proportion of total tax revenues, such revenues have not been allocated for maintenance on a dedicated basis because of the Government's budgetary constraints. For Kenya to achieve a sustainable GDP growth rate and accelerate economic activities in all sectors through an export-led industrial development, therefore, serious attention must be paid to the maintenance and rehabilitation of the nation's roads.

5.2.6 The Government has already taken policy initiatives which will continue to be pursued rigorously during the Plan period to increase the efficiency of road transport. First, as previously indicated in the 7th Development Plan, the Government will continue to give top priority to the maintenance and rehabilitation of existing roads. New road development may, therefore, be undertaken only to remove bottlenecks to economic activities.

5.2.7 Secondly, intensified efforts will be made during the Plan period to provide adequate financial resources for road maintenance as a matter of first priority. In this regard, it may be noted that the road toll charges had been replaced with the automotive fuel levy in June 1994 under the Road Maintenance Levy Fund (Amendment) Act of 1994. The Government also introduced the Transit Toll charges in September 1994 under Common Market for Eastern and Southern Africa (COMESA) arrangements. By the end of fiscal year 1994/95, about Ksh. 1,500 million had been collected from the fuel levy. This constituted 24 per cent of the Appropriations in Aid. Similarly, during the fiscal year 1995/96, Kshs. 1,900 million was collected from the fuel levy, constituting about 28 per cent of the total Appropriations in Aid. All the revenue from these two sources will be fully dedicated to the road maintenance fund. The Government will also ensure that an amount equivalent to at least 50 per cent of the levy funds is provided through budgetary allocations for the periodic and routine maintenance of "unclassified" as well as "classified" roads. The fuel levy rate will be progressively increased to ensure that the accruing funds fully finance the maintenance of the "classified" network in the long run. It must be emphasized, however, that for the fuel levy to cater fully for road maintenance, the economy may have to attain and maintain GDP rates of growth of at least 5 per cent per annum. Despite its promising start, the Road Maintenance Levy Fund (RMLF) is still inadequate and may not be able to meet the minimum road maintenance funding requirements until the year 2001. Until then, about Kshs 8,000 million will be required annually for the country to achieve a reasonable level of road maintenance for the total network. Considering the Government's budgetary constraints, however, donor funding may still be required to supplement the RMLF and budgetary allocations before full funding is achieved.

5.2.8 The third strategic policy the Government has adopted to improve road maintenance is to strengthen the management and the institutional framework for the management of roads. Accordingly, during the Plan period, the Government, through the MPWH and the MOTC will establish an autonomous Executive Roads Board to manage the RMLF and road maintenance. This Board will include the major stakeholders in the roads sector who will also constitute the majority of its members, namely, elected representatives of the Kenya Association of Manufacturers, the Kenya National Chamber of Commerce and Industry, the Kenya National Farmers Union, the Automobile Association of Kenya, representatives of road contractors, representatives of road transporters, the Kenya Association of Tour Operators and other stakeholders. The Government will be represented by relevant Ministries, such as the MPWH, MOTC, Office of the Vice President and Ministry of Planning and National Development, the Treasury and the Ministry of Local Government. The Board will formulate an objective set of criteria for allocating the RMLF and funds from any other sources to cater for the needs of the various stakeholders with regard to both "classified" and unclassified" roads. To ensure adequate funding of urban road maintenance, the board will ensure that a specified portion of the RMLF revenues raised in a particular Local Authority is used exclusively for the maintenance of roads in that locality.

5.2.9 Fourthly, in addition to these measures, action will be taken to strengthen the technical and policy making capacity of the MPWH and MOTC. The MPWH will finalize the preparation of the Strategic Plan for roads sector management for consideration by the Government. The Strategic Plan will provide for:

- capacity building and increased reliance on the private sector for road maintenance and construction;
- provision of adequate funding for road maintenance (including urban roads);
- establishment of guidelines for transparent management and use of road maintenance funds;
- modalities for setting priorities for road investments;

- establishment of additional dual carriage ways and replacement of roundabouts with fly-overs or traffic signals; and

- make provisions for pedestrian and bicycles routes along future roads.

During the Plan period, the Government will continue with the rehabilitation of the Nairobi - Mombasa highway and road projects that had been suspended earlier on. Moreover, it is important to note that the above Strategic Plan will include a programme for achieving full funding of preventive and routine road maintenance by the year 2001, and for improving funding priority in the medium term. The private sector will be involved in both road maintenance and construction. The possibility of inviting the private sector to undertake road construction on the basis of "Build Operate and Transfer" (BOT) principles will be explored.

5.2.10 Finally, considering the high cost of equipment-based road maintenance techniques, Kenya's limited financial resources, the problem of unemployment, and the need to bring much of the road network to a maintainable condition quickly, the Government will encourage the use of labour-based methods for road maintenance and construction, whenever these are cost-effective. Using the experience gained by the MPWH in the implementation of labour-based Rural Access Roads Programme started in 1974 and the on-going Minor Roads Programme, Kenya launched the Roads 2000 Programme which aims at rapidly bringing all the "classified" and the "unclassified" road network to maintainable standards by placing them under effective maintenance with optimum use of local resources. The Government will encourage both private sector and public sector road contractors to take advantage of these developments to minimize economic costs, save foreign exchange, while at the same time providing employment to Kenyans in these activities.

(b) Urban Transport

5.2.11 Urban transport in Kenya, which consists mainly of road transport, is of critical importance to the country's industrial development, mainly because the industrialization process is essentially an urban activity. Moreover, urban areas usually generate economic activities which contribute a very substantial proportion of GDP. Increasing efficiency in urban transport, in terms of enhanced mobility of passengers and freight, will therefore be a priority area of Government policy. More importantly, however, although currently the total length of "adopted" urban streets (which fall under the responsibility of Municipal Councils) is about 7,000 km representing only 4.7 per cent of the total road network, the urban road network carries more than 70 per cent of all vehicles in the country because of the heavy concentration of economic activities in the urban areas.

5.2.12 Despite their relative economic importance, roads in the urban areas have deteriorated in the same way as "classified" roads nation wide. Of the 7,000 km of the urban road network in all local authorities, including the city of Nairobi, only 45 per cent are in "good" and "fair" condition. The rest are in "poor" condition. Currently, urban transport in Kenya is characterized by inadequate supply of public transport (buses and "Matatus"), heavy traffic congestion during peak hours, overloaded passenger transport, and stiff competition for limited road space. The proportion of roads rated in "good" condition in Nairobi, Mombasa and Kisumu fell from 24 per cent to 10 per cent between 1988 and 1993. Road deterioration in the urban areas has led to many economic and social problems. For instance, in Nairobi it is estimated that travel time during peak hours is twice the travel time during off-peak hours leading to a considerable waste of time and fuel, increased vehicle maintenance costs, and a large number of road accidents. Because of the resulting high vehicle operating costs, fares charged for public transport are unaffordable to many urban workers, the majority of whom are forced to walk to work, leading further to low productivity in their places of work. It is estimated that as many as 40 per cent of Nairobians walk to work and that only about 4 per cent of them ride bicycles to work. Bicycle traffic is higher in the smaller towns because it is relatively safer to ride in those towns than in larger towns. In addition to poor and deteriorating road conditions in the urban areas, there is a considerable lack of other road infrastructural facilities such as footpaths for pedestrians, separate lanes for cyclists or non-motorized transport modes (NMTs), street lights to make even walking safer, or fly-overs and by-passes to ease traffic congestion.

5.2.13 Although Local Authorities, ranging from the Nairobi City Council to county and urban councils, are expected to be responsible for the maintenance of urban infrastructure, including roads, nearly all of them have been experiencing critical financial constraints and have been unable to provide adequate resources for road maintenance. Like the MPWH, they also lack adequate capacity to manage and plan their infrastructure, roads included, and many of them are heavily in debt.

5.2.14 To address these problems and in order to restore the efficiency of urban transport, the Government will take two major measures. Firstly, as already mentioned earlier, it will guarantee urban local authorities a share of the RMLF revenues raised within their urisidiction. Secondly, with assistance of the International Development Association (IDA), it will continue implementing a major reform programme covering 26 towns in Kenya. Under the Kenya Urban Transport Infrastructure Project (KUTIP), the Government will contribute US$ 115 million as part of the IDA's Sub-Saharan Africa Transport Policy (SSATP) Programme for upgrading the urban infrastructure in these towns and strengthening financial, management and the institutional capacity of local authorities. The project, already under implementation, includes a non-motorized transport (NMT) component comprising the construction and/or improvement of new or existing bicycle paths and footpaths in Nairobi and Eldoret, as pilot sub-projects. Later on, the NMT component will include Busia and Bungoma. The KUTIP project started in 1995 and is scheduled to end in the year 2003.

(c) Infrastructure for NMT

5.2.15 While emphasis has for a long time been placed on the development of road transport infrastructure which focuses on the development of roads for use by motor vehicles, the Government has recognised the important need to increase accessibility and mobility in the rural areas beyond formal roads. This will entail the development and the use of transport systems that adequately respond to the immediate needs of rural people. Such transport systems comprise of the following:

- provision of infrastructure beyond the conventional roads, including village access roads and paths, cycle paths, bridges and tracks;

- promotion of non-motorist transport, such as bicycle use, use of draught animals, ox-carts, handcarts, and cycle trailers; and

- promotion of intermediate technology in the production of NMT equipment through the application of appropriate technologies easily accessible to small scale Jua Kali artisans.

5.2.16 This form of transport system increases efficiency in the rural communities in terms of availing affordable alternative means of transport. The objective is to improve household and community mobility to minimize the burden and drudgery of walking long distances and head loading in rural areas, especially by women and children, so as to release more time and energy for productive work.

5.2.17 The Government is aware of the encouraging success of pilot projects already being implemented in several parts of the country by a number of NGOs, such as the Intermediate Technology Development Group (ITDG), Kisumu Innovation Centre-Kenya (KIC-K), Kenya Network for Draught Animal Technology (KENDAT), and the supportive roles being played by the International Forum for Rural Transport and Development (IFRTD) together with a number of bilateral agencies in promoting the development of rural transport at community and household levels. These pilot projects are mostly based on low-cost intermediate technologies and skills that can be provided by "Jua Kali" artisans and craftsmen. Efforts will be made during the Plan period to increase rural mobility and enhance accessibility to rural markets, health, administrative, educational and other social and economic facilities in order to increase productivity in agriculture and other economic activities. In this regard, the Government facilitated the launching of the National Forum Group on Rural Transport and Development (NFG) in October, 1996, and the establishment of its secretariat therein. The Forum will bring together a multi-disciplinary team of Government officials, NGOs, international organizations, academicians and researchers to identify appropriate and practical ways in which locality-specific transport needs can be addressed through various interventions.

5.2.18 Since the demand for rural transport stems in part from inadequate supplies of other facilities, such as water, fuel, administrative, health and educational services as well as marketing functions, it is expected that studies undertaken by the NFG will consider other interventions in each locality in addition to transport. The OVP & MPND will continue to support initiatives for the development of non-motorized transport in rural areas as part of rural development planning. The crucial importance of the development of rural transport at household and community levels is its role in strengthening the Rural Access Roads and the Rural Minor Roads Programmes and in alleviating poverty through increased productivity in all sectors of the economy.

(d) Railway Transport

5.2.19 Railway transport provided by the Kenya Railways Corporation (KR) is the second most important mode after road transport. This mode of transport is particularly important for the carriage of bulky goods, especially over long distances. Its efficiency and reliability is important, not only for international trade and transit traffic to neighbouring countries, but also in supplementing road transport and in reducing road damage by reducing road traffic. The development of road transport, the erection of the oil pipeline from Mombasa to Kisumu and Eldoret and the management of KR as a parastatal under Government regulation have contributed to the unsatisfactory performance of the railways. Currently, freight haulage accounts for more than 80 per cent of KR's total annual revenue earnings while passenger transport accounts for only 10 per cent of its revenue. Other services, such as catering, marine transport on Lake Victoria, transportation of livestock and coaching services contribute the other 10 per cent of revenue. Over the years KR's performance has been characterized by a steadily declining volume of both passenger and freight traffic. Goods traffic has been declining from 3.3 million tonnes in 1991 to 1.9 million tonnes in 1994 with only a slight increase to 2.1

million tonnes in 1995. Similarly, the number of railway passengers fell from 2.6 million in 1991 to only 1.7 million in 1995. Although revenue from both freight and passenger traffic has been steadily increasing, this has been due to several tariff adjustments under KR's restructuring and liberalization programme and not to its commercial performance. Consequently, KR has been experiencing low locomotive availability (about 47 per cent in 1994) due to inadequate maintenance and huge operational losses.

5.2.20 The Government has formulated a restructuring programme aimed at increasing the efficiency of KR and commercializing its operations. Its components include the separation of passenger and freight services, discontinuation of all loss-making activities, contracting out locomotive maintenance to the private sector, divestiture of marine services on Lake Victoria, reduction of staff to optimum levels, signing of a performance contract with the Government, and granting KR managerial autonomy by exempting it from the State Corporations Act. During the Plan period the MOF and MOTC will strictly ensure the effective implementation of this restructuring programme. Specific projects to be implemented by KR during the period also include the change of signalling from manual to electrical signalling.

5.2.21 The effective implementation of the restructuring programme will be strengthened by programmes to be implemented under the East African Co-operation arrangements. Altogether, these measures are expected to increase the efficiency of transport services provided by KR for both freight and passengers.

(e) Marine Transport

5.2.22 Marine transport in Kenya consists of port facilities in Mombasa, shipping, and inland water transport. Inland container depots at Nairobi, Kisumu and Eldoret, which are also managed by the Kenya Ports Authority (KPA), also fall under this mode of transport.

5.2.23 Increased productive activities in all sectors of the economy of the magnitudes envisaged by the Government to transform Kenya into an NIC, especially through export oriented manufacturing, will require increased efficiency and capacity at the port of Mombasa to handle an increased volume of traffic. The Government has therefore contracted the services of Felixtowe Port Authority to manage and operate the container terminal in Mombasa. The management of the Inland Container Depots in Kisumu and Eldoret is also under review and private managers will be contracted if deemed necessary. Measures are also being taken to restructure the KPA by reviewing its maintenance strategies. The Government will also sign a performance contract with KPA to include the implementation of adopted recommendations of the on-going staff rationalization study.

5.2.24 The implementation of these measures will ensure that KPA's management efficiency will cope with the projected port traffic as shown in Table 5.5.

Table 5.5: Projected Port Traffic, 1990 - 2001 (mn DWT)

YEAR	DRY CARGO			OIL AND BULK LIQUIDS			TRS*	TOTAL		GRAND TOTAL
	Imp	Exp	Total	Imp	Exp	Total		IMP	EXP	
1990	2.19	1.91	4.10	3.00	0.40	3.40	0.04	5.19	1.91	7.54
1996	3.31	1.75	5.06	2.77	0.34	3.11	0.06	6.08	2.09	8.23
1997	3.36	1.82	5.18	2.84	0.35	3.19	0.07	6.20	2.17	8.44
1998	3.47	1.90	5.37	2.94	0.37	3.31	0.07	6.41	2.27	8.75
1999	3.57	2.00	5.57	3.06	0.38	3.44	0.08	6.63	2.38	9.09
2000	3.68	2.11	5.79	3.17	0.39	3.56	0.08	6.85	2.50	9.43
2001	3.79	2.21	6.00	3.29	0.41	3.70	0.09	7.08	2.62	9.79

Note: TRS* denotes Transhipment

The Table shows that port traffic, which grew at 1.2 per cent per annum between 1990 and 1995, is projected to grow at 3.8 per cent per annum during the Plan period, i.e from 8.23 million deadweight tonnes (DWT) in 1996 to 9.79 million DWT in the year 2001. Export volume is expected to rise from 25 to about 27 per cent of total freight traffic.

5.2.25 As regards Ferry services, KPA and the Kenya Ferry Services Ltd. have identified specific projects that will be implemented in joint ventures with the private sector during the Plan period. These include:

- the establishment of maintenance and mooring facilities;
- widening walkways and roads approaching the Likoni Ferry to accommodate both motorists and pedestrians and to install crowd control and passenger counting devices;
- repair works to prevent propeller wash;
- major repair/rehabilitation of Mtongwe jetties;
- acquisition of two new ferries at Mtongwe with capacities of 300 to 500 passengers each; and
- acquisition of 2 more ferries at Likoni with a capacity of 50 vehicles and 2,000 passengers to replace "Safina" and "Mvita"

5.2.26 During this Plan period, the Department of the Merchant Shipping Superintendent, which has been operating as a unit of the Ministry of Transport and Communications but under the authority of KPA, will be established as a Government regulatory body in order to enable it to exercise its powers freely and independently of KPA. The Ministry of Transport and Communications will take action to implement modalities for this to be achieved. Similarly, the Government, through the MOTC, will prepare safety regulations for all marine vessels on Lake Victoria in collaboration with neighbouring countries and on other inland lakes and rivers.

(f) Air Transport

5.2.27 Air transport remains the key sub-sector for the development of tourism, the transportation of high value exports and perishable goods (especially horticulture which is a major source of foreign exchange) and for promoting regional integration. Following the privatization of Kenya Airways, the Government's attention in this sector will be focused on the improvement of efficiency of airport facilities, particularly in the areas of maintenance and equipment, by improving the quality of airport service and by strengthening the relevant institutions.

5.2.28 In order to increase its managerial autonomy, the Government issued a legal notice exempting the Kenya Airports Authority (KAA), among other parastatals, from the provisions of the State Corporations Act in March 1996. This was intended to strengthen the Authority's capacity to manage airports/aerodromes, to provide ground facilities and to improve the quality of airport services. The possibility of contracting out their management to the private sector will be explored. The Government will also strengthen the capacity of the Directorate of Civil Aviation to perform its functions. To enable the Directorate to attract and retain qualified personnel, particularly in the technical areas, the possibility of improving the reward and remuneration levels for its staff will be explored. Adequate funds will be allocated to the Directorate for maintenance, rehabilitation and modernization of navigational and other equipment. Specific projects to be implemented by the Department during the Plan period will include:

- construction of an aircraft hangar;
- establishment of a rescue coordination centre at Jomo Kenyatta International Airport in Nairobi and rescue coordination sub-centres in Mombasa, Kisumu and Wajir;
- development of a regional aeronautical telecommunications network;
- equipping the central workshops in Nairobi with facilities for logistical support;

- establishment of a calibration centre and a test and repair centre; and

- refurbishment and rehabilitation of the East African school of Aviation prior to granting it autonomy and separating its activities from those of the Directorate.

(g) Pipeline Transport

5.2.29 As indicated in the 1994-1996 Development Plan, the extension of the oil pipeline to Kisumu and Eldoret was completed and commissioned in 1995. Although in October 1994 the Government liberalized the procurement, distribution and pricing of petroleum products thus exposing the Kenya Pipeline Co. Ltd (KPC) to competition from other transport modes, the continuing ban on road transportation of petroleum products from Mombasa to neighbouring countries till affords KPC some protection.

5.2.30 In order to improve the efficiency of the pipeline on a sustainable basis, and further to the on-going privatization of the KPC, a feasibility study is to be undertaken on the economic potential for extending the pipeline to Kampala, under the aegis of the East African Co-operation arrangements, during the Plan period. The extension of the pipeline is expected to minimize damage to Kenyan roads by heavy tankers transporting petroleum products to neighbouring countries. The Ministry of Energy and the Treasury will take appropriate action.

5.3 COMMUNICATIONS

5.3.1 Kenya Posts and Telecommunications Corporation currently provides both postal and telecommunications services as well as regulating the provision of these services. An efficient and modern communication network creates an economic environment that is conducive to an export-oriented industrial complex, stimulates growth in all sectors of the economy, and promotes public administration, environmental protection and social mobilization. This sub-sector also constitutes an effective medium for achieving the Government's rural-urban balance policy. It is therefore necessary that these services are provided on a cost-recovery basis under a commercially oriented management environment.

5.3.2 Kenya already has a sound basis for further development of the communications sector. In the telecommunications sub-sector, the total number of telephone exchange connections has been rising steadily over the last 5 years from 200,000 in 1991 to 250,000 in 1995, reflecting an annual growth rate of 6.3 per cent, with an exchange fill of 66.2 per cent and a telephone density (i.e. the numbers of exchange connections per 1000 population) of 9.4 lines per 1000 people. The total telephone exchange capacity is expected to increase from 376,948 lines in 1995 to 673,412 lines in the year 2001, an average annual growth rate of 10 per cent. The total telephone exchange connections will also increase at 13.4 per cent per annum from 249,604 lines to 505,966 lines during the Plan period. This is expected to raise the telephone density from 9.4 to 15.2 lines per 1000 people. Automation of telephone services has been proceeding rapidly from 168,621 automatic exchange connections in 1990 to 242,638 connections in 1995. These constituted 88.2 per cent and 94.8 per cent of the total telephone services in the two years. Similarly, the level of digitalization has increased from 18.7 per cent to 56.2 percent during the period. As a result of these developments, the number of manually operated telephones has declined considerably from 14,619 to only 6,966 during the same period. In addition, KPTC provides mobile telephone services, "KENPAC", bureaufax as well as supplementary services including call diversion, abbreviated dialling, alarm call, three party conference and fixed destination services. The 64 Kb/s leased line data services are also available for use by the business community. The rapid growth in the number of mobile telephones from 1,162 in 1993 to 2,638 in 1995 implies a growing potential for their local development in the long-run.

5.3.3 The Gilgil Telecommunications Industries (GTI), a subsidiary of KPTC, currently produces telephone sets, telephone exchanges, poles and Small Business Systems for the domestic and export markets. It has an automated repairs centre and associated research and development activities revolving around standards and calibration. Kenya has already joined the "information superhighway" following the convergence of computing, telecommunications and audio-visual technologies. It is now necessary, therefore, for the country to develop a digital network of these technologies in order to reap the benefits of this development.

5.3.4 In the postal sub-sector, the number of post offices has been increasing, but between 1994 and 1995 the number has fallen from 1,096 to 1,061 post offices due to the closure of some uneconomical post offices in an effort to improve the efficiency of KPTC. There have been increases in the number of private letter boxes and the number of public call boxes.

5.3.5 Despite these developments involving the expansion and modernization of the telecommunications and postal services, the quality of these services remains unsatisfactory. There is still a considerable amount of suppressed demand for the services. In view of this, the Government has formulated policies for restructuring KPTC. These include privatization of the Corporation under arrangements to be worked out jointly by the Treasury and the MOTC. Furthermore, KPTC will be split into three separate entities namely, a Postal Authority, a Telecommunications Authority and a Regulatory Authority. The Telecommunications Authority is intended to offer, through public flotation on the Nairobi Stock Exchange, 30 per cent of its equity to a reputable investor. The new company will be free to engage in joint ventures with other private investors in other areas of telecommunications development. It will also be allowed to divest from uneconomic services.

5.3.6 In addition to the major restructuring programme for KPTC, other areas have also been identified for improvement during the Plan period. The MRTTT will collaborate with the MOTC to conduct a study on the feasibility of expanding courses currently provided by the Kenya College of Communications Technology in Mbagathi to include university degree courses in telecommunications.

5.3.7 Despite advancement in other forms of communication, mail correspondence is expected to remain an indispensable mode of communication. The sector will have to be restructured to operate more competitively in a liberalised market for a number of its services. Additional service outlets will be considered on a cost-recovery basis. These will include the provision of private letter boxes. In the case of additional postal services, locally built and assembled service outlets will be preferred to the erection of permanent buildings on the basis of their cost-effectiveness. The assembled postal outlets will also contain private letter boxes and will be used to meet the excess demand especially in the urban and other densely populated areas.

5.3.8 Postal network growth will be aimed at improving service accessibility through enhanced Post Office penetration. By the year 2001 the ratio of population per post office will fall to 20,000. Accordingly, the number of service outlets will increase at an average rate of 8.8 per cent annually. The number of outlets will increase from 1061 in 1995 to 1615 in 2001. The land area per service outlet will fall from 539 to 353 square kilometres over the period. Similarly, private letter boxes will increase from 301,700 to 540,000 leading to improvement in the ratio of population per letter box from 88 to 60 respectively. In addition, postal services will be expanded to include home/office delivery of mail and other articles . This will be facilitated by proper numbering of streets and buildings by Local Authorities. The network growth targets are shown in Table 5.5

Table 5.6: Postal Services Network, 1995 - 2001

	AC-TUAL	PROJECTED			
	1995	1997	1999	2000	2001
Service Outlets (units)	1,061	1,154	1,366	1,487	1,615
Installed Private Letter Boxes (units)	301,700	389,300	464,600	502,300	540,000
Population/Services Outlet	24,920	23,920	22,841	20,900	20,000
Population/ Private Letter Box	88	72	65	62	60
Land Area/Service Outlet (Sq.Km)	539	495	418	384	353

(h) Meteorology

5.3.9 Accurate and reliable information on climatological and weather conditions prevailing in specific regions of the country and internationally is now recognised worldwide to be an important aspect of economic development. This information is used by a wide section of the economy including agriculture, industry, maritime transport, aviation and other transport modes. Accurate and timely forecasting of these conditions can enhance agricultural production and also assist in averting national disasters, such as accidents and other calamities. The Meteorological Department in the MOTC currently provides these services in collaboration with similar organizations in the region and internationally. The policy in this area is to strengthen the capacity of the meteorological facilities in the country and make them available to all users on a cost effective manner and as efficiently as possible.

5.3.10 Kenya already has the capacity to provide data and information necessary for natural resource assessment and planning through remote sensing applications. The Meteorological Department together with the Department of Resource Survey and Remote Sensing in the OVP&MPND, in collaboration with the Regional Centre for Surveying, Mapping and Remote Sensing (RCSMRS), the remote sensing programmes of the US National Oceanographic and Atmospheric Administration (NOAA) and the European Space Agency (ESA), have developed a valuable and useful information exchange system for various uses.

5.3.11 At the moment Kenya has 35 fully equipped meteorological stations in the districts and at the Headquarters in Nairobi. A proper networking computer system among them is in the process of being installed to ensure that weather information from any part of the country can be centrally analysed and disseminated promptly. The equipment, which the Government has installed to improve meteorological services, includes the High Resolution Picture Transmission (HRPT), the Automatic Message Switching System (AMSS), the Meteorological Data Distribution System (MDDS) and Automatic Weather Stations.

5.3.12 Although these facilities have been considerably improved, there is still room for further improvement during the Plan period. It is intended to establish several new weather stations in various parts of the country. Use of solar or wind energy will facilitate cheaper drought and desertification monitoring. To provide a link system with regional and international networks and facilitate availability of advance information on impending weather changes on a day to day basis, the Department will acquire additional computerized facilities during the Plan period. Similarly, the Department will establish an information dissemination system at the district level to improve the distribution of weather information to farmers, extension staff and other users.

(i) Information Dissemination and Advocacy for Industrialisation

5.3.13 A free flow of information to the public on a timely basis and widespread awareness in both rural and urban areas can considerably inculcate industrial thinking among wananchi and assist in developing an industrial and commercial culture, especially among workers, investors and consumers. The Government intends to disseminate the proposed policy changes and development path outlined in this Plan through electronic and print media, the DDCs and public barazas.

5.3.14 The existing public media, including the Kenya Broadcasting Corporation (KBC) have the capacity to assist the Government in achieving these objectives. Following its restructuring, the KBC has launched the FM commercial radio station in addition to three FM stations, which will soon be extended to cover the whole country. The Corporation is already operating two Short-Wave stations, 3 FM stations and 5 Television stations. Currently KBC reaches 95 per cent and 40 per cent of the population through radio and television signals, respectively. During the Plan period, this coverage is to be raised to 99 per cent and 70 per cent, respectively. Registered radio and TV sets are expected to increase from 5.5 million and 600,000 in 1995 to 6.1 million and 780,000 sets by 2001, respectively. The Kenya Mobile Cinema Unit will be modernized to play a major role in disseminating information and educating workers in both rural and urban areas.

5.3.15 As for the print media, the Government is satisfied that Kenya already has the capacity to achieve maximum dissemination of information through the private and public sectors. The Ministry of Information and Broadcasting will establish new information offices in Migori, Bomet, Nyeri, Garissa and Marakwet and in the newly created Districts to further improve the information services. Currently, it has 11 rural press newspaper stations in Murang'a, Siaya, Kabarnet, Mariakani, Kericho, Vihiga, Machakos, Isiolo, Kisii, Naivasha and Garissa. It is expected that further liberalization of airwaves will be undertaken. This development, together with the existing and new public and private TV stations and with the existing newspapers and magazines, constitutes a sound basis for informing and educating the public on industrialization problems and opportunities.

5.4 WATER AND SANITATION

5.4.1 An adequate and reliable supply of clean water in both urban and rural areas is an essential requirement not only for industrial establishments but in all sectors of the economy. In many industrial, agricultural and commercial enterprises, water is an essential direct input. Current estimates of Kenyan water supply indicate that 75 per cent of the country's urban population has access to safe drinking water, while only 50 per cent of the rural population has access to potable water from various schemes, including piped water schemes, bore-holes, protected springs, pans and dams. In both urban and rural areas, water supply is generally inadequate for domestic, industrial and commercial uses. Kenya's water supply services are provided primarily through 330 gazetted (public) water sources which account for 80 per cent of the served population countrywide. The rest (20 per cent) of the population is supplied by non-gazetted schemes. By 1994, there were about 1,780 water supplies under major operators as shown in Table 5.6 below:

Table 5.7: Water Suppliers and Number of Projects Operated

Operator/Supplier	No. of Water Projects, 1994
Ministry of Land Reclamation Regional and Water Development (MLRRWD)	579
National Water Conservation and Pipeline Corporation	188
Community Water Supplies	339
Self Help Schemes	243
Local Authorities	164
Non Governmental Organisation	266
Total	1779

5.4.2 The above data show that the public sector, consisting of the MLRRWD, the National Water Conservation and Pipeline Corporation and Local Authorities, controlled a total of 931 water projects constituting about 52 per cent of a total of 1779 projects. Community Water Supplies and Self-help Schemes and NGOs operated 848 water projects (or 48 per cent) of the total. Altogether, 6 categories of organizations provided water under nearly 1780 projects. Many water supply projects currently require urgent rehabilitation and augmentation but lack adequate funding. Budgetary constraints have rendered many projects funded by the Government through the MLRRWD or through the local authorities inoperable. There is, therefore, a need to apply alternative management options and technologies in this area with a view to ensuring sustainable water projects and the development of water resources by the various stakeholders. Similarly, the Water Master Plan needs to be reviewed by the MLRRWD. At the same time, water tariffs are still set generally at levels that do not cover the cost of services rendered and hence funds for further development are not being adequately generated, despite official policy on user charges. It is necessary therefore to harmonize modalities for provision of water with a view to increasing its efficiency and coverage.

5.4.3 Besides the need for adequate water supplies for domestic, agricultural and industrial uses, there is a need for a properly organised and efficient system of sanitation. Currently, out of the 142 gazetted urban areas in Kenya, only 30 per cent have sewerage systems. This is partly because in many urban areas, the development of water supplies has not been matched by a corresponding increase in facilities for sanitary disposal of waste-water, thereby posing serious environmental and health problems. Some of the systems do not even have the capacity to handle their full sewage load. In addition, there is an increasing need to address the issue of management of solid wastes in urban areas.

5.4.4 Human activities, particularly in water catchment areas, are increasingly threatening forest cover and in some areas have resulted in diminishing availability of water. There is a need, therefore, for an integrated approach to water resources management and planning for the benefit of the economy as a whole. To ensure that the water resources in the country are properly managed on a sustainable basis, the MLRRWD, in collaboration with the MENR, will prepare a National Water Management plan for consideration by the Government. This will ensure a comprehensive approach to water management and planning. The Government will continue to implement a comprehensive investment plan for the rehabilitation and extension of existing water supply schemes, many of which are in poor condition. In order to ensure the financial sustainability of the water schemes, the principle of cost-recovery will be introduced and strictly administered, so as to facilitate adequate funding for maintenance. The Government, through the MLRRWD and other relevant Ministries and authorities will progressively implement the policy of charging urban consumers water tariffs at levels that are sufficient to cover capital amortization, operation and maintenance costs, and set tariffs for rural water schemes at levels that cover all operation and maintenance costs. Considering that water is one of the key issues in environmental policy issues, the MLRRWD and the MENR will maintain very close collaboration with each other.

5.5 LAND

(a) Overview

5.5.1 Availability of land for industrial use, and indeed for use by all economic sectors on which industry depends, is a major prerequisite for the promotion of rapid industrial development. In fact, constraints in its availability could inhibit not only the expansion of existing industrial units and the development of new infrastructure but could also inhibit the establishment of new projects. It is in this context that issues relating to systems of land use management, land information systems and appropriate land reform programmes need to be clearly defined. These factors determine the location of industries, affect agricultural activities, influence the development of infrastructural facilities, and affect the development of housing, especially in the urban areas. All of these issues have a bearing on industrialization.

(b) Land Use Management

5.5.2 Since independence, the Government has made considerable progress with regard to land use planning, alienation of Government and Trust land, land adjudication, surveying and mapping, registration, and in the management and development of land for industrial and other uses. Various policy instruments, such as the designation of "Growth Centres", "Service Centres", "Rural Trade Centres", have been used to set aside land for specific uses. For several decades, the Government has been providing serviced land not only for commercial and industrial utilization and development but also for residential purposes in the urban areas. To facilitate this, the Government established the Estate Development Fund, a revolving fund which was used to develop infrastructure, allocate land for development and recover the costs from allottees through an apportionment method. Following the Fund's suspension in 1982, provision of access roads and similar facilities has become problematic.

5.5.3 In order to address these problems, this Fund will be revived by the Ministry of Lands and Settlement during the Plan period, but with the private sector having a role in its management. In addition, the provisions of the Physical Planning Act of 1996 will be strictly administered by the Ministries of Lands and Settlement and Local Government.

(c) Land Information System (LIS)

5.5.4 Different organizations hold different kinds of information on land. As a result, co-ordinated retrieval of data for analysis and dissemination or planning and for policy purposes becomes difficult. Attempts have been made to use modern information systems, particularly computers, in information management, survey and mapping. While success has been achieved in the area of survey and mapping, little has been achieved in textual data management for land administration and registration. Co-ordination of the various sources and uses of information has also been lagging behind but an initial project phase is already under way. Means of financing later phases will be sought. Efforts are also under way to improve information management and the integration of all users and contributors by computerizing land data and land administration procedures. A parcel-based information system to cover textual and graphical information, and to interface the two, will be undertaken. The exercise will involve all stakeholders and will be decentralized for ease of management. It will be developed in every District Land Registry and is expected to provide a national framework for the management of urban growth and development.

5.5.5 Specific strategies will involve developing and implementing a Land Information Service (LIS) based on a unique number for each parcel of land; training required for manpower necessary to sustain the project; preparation of a graphic representation of Registry Index Maps and other graphical data; and preparation of an elaborate and co-ordinated institutional structure for collection, documentation and processing of land information data.

(c) Land Reform Programme

5.5.6 Taking into account the provisions of the Physical Planning Act, and the proposals made in Paragraph 5.5.3 above, the Government, through the Ministry of Lands and Settlement and the Ministry of Local Government, will focus on the implementation of existing mechanisms. In addition, the Government will implement the recommendations of the Presidential Commission on Land Use. The Ministry of Lands and Settlement will take measures to ensure that land is earmarked for industrial development in every local authority on the basis of the Physical Planning Act of 1996. In this regard, the Government considers that the Physical Planning Act of 1996 adequately addresses the problems of industrial land, among other categories. The Act provides for preparation and implementation of regional and local physical planning development plans by the Physical Planning Office. It also ensures co-ordinated and orderly physical development and proper land use with a view to preventing the development of un-planned shanties, illegal sub-divisions of land, traffic congestion, mushrooming of shops along major roads and shortages of public amenities. On the strength of this Act, the Government intends to encourage all local authorities, through their Physical Development Liaison Committees, to set aside land for use as Industrial Parks so as to minimise the initial costs for industrial investors.

CHAPTER 6

HUMAN RESOURCE DEVELOPMENT AND WELFARE POLICIES.

6.0 INTRODUCTION

6.0.1 Human resource development is key to the creation of scientific and technical know-how and its conversion into quality goods and services. The realization, pace and direction of industrial development goals and objectives; technological innovations and adaptation; as well as socio-economic advancement stated in this Plan will largely depend on quality, quantity and flexibility of human resources and how well they are employed to apply their practical knowledge and skills. This will involve planning for present and future manpower needs; developing the required manpower skills; assessment, review and restructuring of education and training programmes and activities; and the identification of manpower skills needs to form the basis for such education and training efforts.

6.0.2 This Chapter examines the role of human resources development in promoting industrialization, and focuses on specific measures to promote human resources through development, education, training, employment creation, population, health, shelter, nutrition, poverty alleviation and other welfare services, all of which form the basis for enhancing and utilizing the productive capacity of the country's manpower.

6.1 POPULATION

6.1.1 Rapid population growth is the bane of economic development. It leads to a high dependency ratio and a large and growing youthful population that needs basic education and health care. These factors limit the scope for Government to upgrade educational facilities, to increase health and other social expenditures, to make direct investments in productive activities, to create employment opportunities, and to deal effectively with serious environmental concerns as populations encroach on water catchment areas, forests, and marginal lands. With this background, the significant decline in the intercensal growth rate (from 3.9 per cent per annum over the 1969-1979 period to 3.4 per cent over the 1979-1989 period) as well as declines in total fertility rates are welcome signs of the onset of the demographic transition in Kenya.

6.1.2 Two other aspects of population will be important determinants of how population considerations will affect Kenya's development options over the next five years. Firstly, regional population densities in Kenya are remarkable in their diversity: from over 230 persons per sq km in high potential areas to as low as 3 persons per square km in arid areas. Secondly, Kenya has a rapidly urbanizing population, with urbanization expected to reach 23 per cent of the population by 2001, up from 17 per cent in 1989. The wide variance of population densities poses major challenges with respect to delivering the same level of services in different environments, while urbanization leads to new and complex human development needs that the country has yet to prove itself capable of meeting. Some of the indicators of Kenya's population structure and projections are summarized in Table 6.1.

Table 6.1: Indicators of Kenya's Population structure and Projections

	1979 (Census)	1989 (Census)	1995 (Estimates)	2001 (Projected)
Total Population (Mn)	16.2	23.2	27.5	31.9
Growth rate (% p.a.)	3.9	3.4	2.9	2.5
Avg. Population density (Per sq km)	26	37	43	49.9
Urban population (mn)	2.3	3.9	5.3	7.4
Total Fertility Rate	7.8	6.7	5.4	4.8

6.1.3 Now that Kenya has begun its demographic transition, policies relating to population growth will focus on re-enforcing the trend and accelerating the decline in the total fertility rate. To this end, programmes to expand immunization, child care and care for pregnant and lactating mothers, to improve educational opportunities for young girls, to expand the use of contraceptives and, by other means available, to boost the prospects for survival of infants will be the areas of focus. With respect to immunization, the Kenya Expanded Programma of Immunization (KEPI) is projected to ensure universal immunization of children under five as compared to the current 70 per cent immunization. Up to 1,500,000 children are expected to be immunized each year for the duration of the Plan period.

6.2 HUMAN RESOURCES PLANNING AND DEVELOPMENT

6.2.1 In the development process, human resources are both essential contributors and the end beneficiaries of a successful development strategy. It is important to equip human capital with the knowledge, skills, attitudes and values that will enable the labour force to use the nation's natural and man-made resources productively. Education and training have played a pivotal role in the supply of skills and knowledge needed for the socio-economic development of the country. The Government has consistently directed large proportions of its budget to education and training in order to enhance the relevance and quality of the skills of the labour force. Furthermore, the Government has endeavoured to re-orient the education and training programmes to ensure that those benefitting from the programmes have the skills that match the needs of the economy, and to remove the apparent deficiencies in the educational training system. However, these processes have been constrained by the country's high rate of population growth which has resulted in an expanding pool of the unemployed. Lack of co-ordinated policies and programmes of manpower training and insufficient funding for training at the national level have further exacerbated the problem.

6.2.2 The issue of generating sufficient employment opportunities to absorb increases in the labour force has been at the core of past Plans. A number of Commissions and Task Forces have been set up by the Government which have come up with policies and strategies aimed at addressing the employment problem and accelerating economic and social development. In this context, manpower planning has been adopted as a process where the nature, quality, structure and the stock of manpower in the economy has been examined and analyzed to establish the relationship between demand and supply of human capital in terms of skills in order to match the two sides of the manpower equation, and to evaluate any manpower imbalances, both current and projected.

6.3 EDUCATION

(a) General Policies and Priorities

6.3.1 One of the Government's guiding philosophies for education is the concern that every Kenyan has the inalienable right, no matter his or her socio-economic status, to basic education. Since independence, the expansion of education facilities has been the single most important challenge on the human resource development front. The Government has met this challenge head on and achieved some impressive results in enrolment ratios as indicated in Table 6.2.

Table 6.2: Trends in Educational Enrolment, 1963 - 1995 (000's)

Education	Enrolled	Enrolled 1995	Male/Female	1963-95 Annual
Primary	892	5,545	1.02	5.7
Secondary	30	632	1.18	9.5
University	0.571	44.91	2.79	13.6
Teacher train	4	16.878	1.05	4.5
Technical	1	8.148	-	6.6
Polytechnics	-	7.927	3.219	-

6.3.2 The table indicates firstly, that there has been rapid growth in enrolments at all levels of education with the rate of enrolment growth rising the higher the level of education, and secondly, that the gender bias of education is close to being eliminated at primary level but is still significant at all other education levels, with the exception of teacher training. The rapid growth in enrolments has enabled the stock of human capital to rise much faster than overall population growth, leading to an upgrading of the quality of the labour force. There have also been significant achievements on the literacy front. Indeed, 1989 census data indicate that whereas for the 55-59 age group, literacy was 57 per cent for males, 19 per cent for females and 38 per cent overall, for the 15-19 age group the respective figures were 91 per cent for males, 87 per cent for females and 89 per cent overall. This indicates significant improvement on both the level and gender balance, and the prospect of achieving universal literacy is a real one.

6.3.3 Despite these commendable achievements, Kenya faces several problems on the education front, primarily relating to declines in enrolment and completion rates, financing, and relevance of education. Gender imbalances at secondary and tertiary levels are also an area of critical concern. Indeed, persistent gender imbalances in governance and decision making is not due to overt gender discrimination but is the consequence of historical differences in access to education. Government policies to eliminate gender imbalances at all levels of education will be the key to the elimination of gender biases throughout society.

6.3.4 As regards *enrolment*, in 1995, only 76 per cent of the primary age population (6-13 years) were enrolled in primary school, while 27 per cent of the secondary age population (14-17 years) were enrolled at that level. Enrolment at universities is low, with a transition rate of only 7 per cent from secondary schools. Completion rates at primary level are as low as 47 per cent. Overall, there has been a worrying decline of enrolment at all levels, a fact that needs to be reversed given the crucial importance of educated manpower to industrialization. As compared to the enrolment levels in the current industrializing countries, there are greater relative deficiencies at the secondary and tertiary levels.

6.3.5 As can be seen from Table 6.3, the greatest increase in demand for education during the Plan period will emanate from the tertiary sub-sector which is projected to increase by 13.1 per cent. This is followed by demand for primary and secondary education, in that order, which will increase by 7.0 and 5.9 per cent respectively. This increase in demand will occur even as the MEd is re-orienting public educational expenditures to focus on primary education.

Table 6.3: Projected Demand for Education, 1997-2001 (mn)

Educational	Age Yrs	1997	1999	2000	2001	Percent Increase
Primary school	6-13	6.03	6.25	6.36	6.46	7.0
Secondary school	14-17	2.72	2.82	2.85	2.89	5.9
Tertiary school	18-22	2.95	3.16	3.25	3.34	13.1
TOTAL	6-22	11.71	12.24	12.47	12.68	8.3

6.3.6 Challenges relating to the *relevance* of education are mainly concerned with producing an employable labour force. At secondary level, there is inadequate teaching of sciences and technical subjects with vocational and technical subjects being taken by only 3 per cent of the KCSE candidates. Though relative enrolments in science and technical related subjects at higher educational institutions at 23-26 per cent are in line with other countries, the mix between pure science and engineering is skewed in favour of science students, leading to shortages of engineers and to unemployed science graduates. In addition, girls' schools are relatively less well endowed with respect to science teaching facilities and this leads to lower female representation at post secondary technical and science education institutions. At primary level, there is inadequate emphasis on practical skills despite the rural base of most workers and the low transition to secondary schools.

6.3.7 *Financing* education, and especially public financing of education, is of crucial importance. The policy of cost sharing between the Government, parents, and communities, which has been in place since 1988, will be maintained in financing education. Some problems which will be addressed include, first, the distribution of financing. Currently, 57 per cent of public funds go to primary education, 16.2 per cent to secondary and 20 per cent to post-secondary. This distribution is not proportionate to overall enrolments considering that 89 per cent are enrolled at the primary level, 29 per cent at the secondary level and less that 2 per cent at the post secondary level. Secondly, the level of Government subsidy varies with the education level: whereas the poorest 10 per cent received higher subsidies than the highest 10 per cent at primary level, this situation is drastically reversed at the secondary level, where the relative distribution is such that the richest 10 per cent of families receive over 4 times the subsidy of the poorest. The situation at university level is even more uneven. Thus, the targeting of Government assistance will be improved to assist those in need more evenly across the board.

6.3.8 The bulk of Government subsidies are in the form of teachers salaries and this has led to problems for poor students who cannot afford to pay for books and equipment. This leads to poor quality education for the poor. In addition the number of primary school pupils in absolute need of textbooks has gone up from 1.7 million to 4.2 million, while the number of secondary school students in absolute need of bursary assistance has gone up from 155,000 to 400,000; and nearly all of the 46,000 university students population require loans. During the Plan period, the Government, through the MEd, will take measures to rectify these adverse trends. Actions will involve partnerships with Non-Governmental Organizations (NGOs), donors, religious organizations, Parent Teachers Associations (PTAs) and other stakeholders.

(b) Sub-sectoral Policies and Priorities

6.3.9 As regards **pre-primary education** the Government has instituted a broader concept of an Early Childhood Development (ECD) Programme which embraces all of the under 6 year olds who comprise about 20 per cent of the total Kenyan population. Policies will stress the importance of partnership among all the stakeholders (parents, communities, religious organization, NGOs, donors, private sector and the Government) in its implementation. Second, emphasis will be put on the need to provide integrated services that meet the cognitive, social, cultural, spiritual, emotional, health, nutrition, educational care and protection needs of children. Implementation of the ECD Programme will be strengthened during the Plan period, with the objective of raising participation rates from 35 per cent to 50 per cent.

6.3.10 The most crucial enrolment and completion problem is at the **primary education** level with barely 47 per cent of students completing primary education. Of the students entering Std 1, only 77 per cent of boys and 80 per cent of girls enter Std. 4 while only 55 per cent of boys and 35 per cent of girls enter Std. 8. The Plan target is to boost completion rates to 70 per cent for both girls and boys. The only way of meeting this target will be through more efficient use of available resources. The Ministry of Education will endeavour to ensure that expenditure on primary education rises from its current 57 per cent to 67 per cent of MEd recurrent expenditure during the Plan period with the increase in funding focused on provision of books, essential supplies, bursaries targeted at the poor, and increasing participation of girls at all levels. To ensure efficient targeting of bursary funds, the MEd will develop a 'poverty map' based on the Welfare Monitoring and Evaluation Survey (WMES) of 1994 and use this map for targeting education subsidies. Finally, additional funds will be provided to improve science and practical skills oriented education at this level.

6.3.11 Enrolment at *secondary education* level will be boosted by reducing the cost of education and shifting subsidies away from the richest segments of the population to the poor. This will involve the removal of subsidies to boarding services not directly related to education, setting a 'cap' on Government subsidies per student and re-orienting Government support away from school-based to student-based to ensure that talented students gain support commensurate with their educational achievements. Low enrolments in ASAL regions will be boosted by explicit programmes to be introduced by the MEd by 1998, while science and technical oriented teaching will be strengthened through the provision of laboratories and workshops to rural schools that do not have them. The MEd, in conjunction with all other partners in education development, will come up with a comprehensive Plan of Action to implement this part of the Plan.

6.3.12 Improving the relevance of education at the secondary level is financially tied to quality and facilities. Though at secondary school level in 1995, there were 33,443 trained teachers of whom 18,132 were graduates, there is still a chronic shortage of science and especially mathematics teachers. This is due in part to the poor pay relative to that available in the private sector. The introduction of results-based pay and bonuses for teachers will be implemented with respect to science-based subjects, while the graduate to total teacher ratio will be improved with a view to attaining a fully graduate teacher population at this level. Facilities, especially laboratories and workshops, will be improved through the establishment of a fund for this very purpose and co-ordinated action with other stakeholders. To ensure that education is relevant, curriculum reform will focus on providing those science and practical based skills currently in short supply. To promote gender sensitivity in curricula development, the role of women in curricula development and education counselling will be enhanced.

6.3.13 The *tertiary education* sub-sector is composed of Teacher Education, Polytechnics, Technical Institutes, Institutes of Technology, and the Universities. Enrolment at the tertiary level in Kenya is currently around 4 per cent of the relevant population, with half of that being at university level. There is thus a special need to expand technical and polytechnic level education given the recommended ratios of one technologist to five technicians as well as the crucial linking function of technicians between technologists and professional engineers on the one hand and craftsmen and skilled workers on the other. Rapid expansion of university level education has led to a situation where the professional to technician ratio is adversely skewed in favour of the professionals. With respect to relevance, tertiary education is still overly arts oriented. There is thus a need to expand engineering training and the practical sciences at all universities. Poor facilities in science teaching and the obsolescence of much equipment undermine the quality of education at this level.

6.3.14 Over the Plan period, the Government, through its various agencies, will pursue several measures to ameliorate the situation cited above. To ensure adequate tertiary level education, the Higher Education Loans Board (HELB) will be restructured and its capitalization increased to ensure that it can extend loans to all qualifying tertiary level students as well as act as a revolving fund. Changes will also be made for qualifying students to be allowed to attend colleges and universities of their choice rather than being restricted to Government institutions. This will ensure tertiary education is market driven. It is expected that the private sector will respond to these initiatives by expanding the provision of science and technical courses. The MEd and the MRTTT will also enhance staff development and revise staff remuneration procedures in educational institutions to ensure they are market oriented. In addition, the upgrading of laboratories and workshops in Government run institutions will be carried out under guidance from the respective ministries to ensure adequacy of teaching facilities. Middle level technical colleges will be expanded under a rolling programme to be developed by the MRTTT, to ensure that identified labour shortages are continually being addressed. These labour shortages will be identified by the MLMD through periodic manpower surveys. The Commission of Higher Education (CHE) will investigate possibilities and modalities for instituting an accreditation procedure that will allow tertiary institutions to offer degree programmes. This will require amendment of the Universities Act to empower the CHE to visit and inspect post secondary institutions for accreditation, while the CHE will produce the 2nd edition of the Directory of Post Secondary Training Institutions to facilitate the visitation and inspection process. To supplement inadequate Government resources, public tertiary institutions will be encouraged to expand cost sharing activities which will be facilitated by efforts of parent ministries to strengthen the legislation that allows their resource mobilization. Private tertiary institutions will be encouraged to compete for HELB resources through the aforementioned changes that will allow students attending them to benefit from loan facilities. Accreditation with the CHE will be used to ensure that quality is not compromised in pursuit of profit in these institutions.

6.3.15 The Government's primary objective in the *special education* sub-sector is to facilitate persons with special learning needs to be able to function as productively and independently as possible in their communities and families through early identification, early intervention and early integration and placement. Among the major priorities for the MEd will be to carry out a survey to establish the number of handicapped persons by type; to review curricula to cater for all types of handicapped, including learning disabled, gifted and talented, emotionally disturbed and multiple handicapped; and to intensify the training of all types of personnel in special education.

6.4 MANPOWER TRAINING

(a) General Manpower Training

6.4.1 Kenya's technical and vocational training system consists of five training levels, namely artisan, craftsman , technician, technologist and master of technology. Most training courses take 2 to 3 years and involve a compulsory period of industrial apprenticeship. Of the training institutions, Youth Polytechnics (YPs), the National Youth Service (NYS), and the Christian Industrial Training Centres (CITCs) offer training at the artisan level, while the Industrial Training Centres (ITCs), the Institutes of Technology (ITs), and the Technical Training Institutes (TTIs) offer training at the craftsman level. Technicians are trained at the National Polytechnics (NPs) while technologists are training at University.

6.4.2 Despite the existence of a fairly comprehensive manpower training system, the Kenyan manpower training regime suffers from a number of shortcomings. An assessment of industrial training needs and the potential for institutional capacity to meet those needs was carried out by the Directorate of Industrial Training (D.I.T) in 1995. This study and others done by the private sector have revealed the following:

- The skill distribution in industry is 1 technologist to 3 technicians and 12 craftsmen; the optimum ratio is 1:5:10 respectively; hence, there is a relative shortage of technicians. This may lead to ineffective supervision of craftsmen at production level which manifests itself in poor quality.

- There are skills shortages in textiles, building and construction and food processing while there are surplus graduates in other sectors; this is due to the lack of a system of feedback from users to training institutions leading to a supply and demand mismatch. This under-lines the need for a demand driven and adaptable training system which, in turn, implies a need for closer collaboration between Government planners, training institutions and employers.

- Technical graduates lack hands-on experience, have poor work attitudes and are inflexible. In addition, the majority of training institutions have not kept pace with changing technologies and lack proper and up-to-date equipment. This has led to entrepreneurs often having to retrain technical graduates. Entrepreneurs, in turn, have responded by preferring on-the-job training to the recruitment of new technical graduates; yet, by its very nature, on-the-job training tends to be specific and thus reduces labour mobility and flexibility. A further side effect of this reaction by employers is that the presence of unemployed technical graduates reduces the attractiveness of pursuing technical training courses and this has led to a situation where excess technical training capacity co-exists with shortages of skilled labour.

- An inadequate number of informal sector employees come forward to be tested for formal sector qualifications and hence the considerable informal sector training potential makes an insufficient contribution to formal sector skills accumulation.

- There is inadequate data for manpower planning. In addition, there is no comprehensive system for monitoring human resource development trends. Hence, there is no validation mechanism for comparing actual training performance with targets.

- The occupational classification in Kenyan industry is haphazard and does not adequately take account of changing skills and technology. There is thus a need for more co-ordination of manpower development.

- Curriculum development, as done by the Kenya Institute of Education (K.I.E) and the D.I.T, is not harmonized and is currently hampered by inadequate financial, physical and human resources; inadequate facilities and manpower to implement curriculum changes; and inadequate capacity for timely response to changing environments

- Certification is carried out by several bodies (e.g., D.I.T, KASNEB, KNEC, some private bodies) leading to problems in rating, comparing and equating the different certificates.

- There is little co-ordination between industry and training institutions leading to poorly planned and supervised industrial attachments, indicating poor linkages and little co-ordination.

- Many previously relevant training courses have been rendered obsolete by changing demands throughout the industrial and commercial spectrum, especially with respect to automation and materials technology.

- Most Youth Polytechnics are in a weak financial position due to budgetary cut-backs. This is occurring while a more comprehensive curriculum is increasing the need for qualified instructors and additional equipment. Increased fees have also undermined enrolments. Other levels of the training system face similar problems.

- Industrial training levy funds are not used for the maintenance and upgrading of equipment. This constrains the ability of training institutions to keep pace with changing technologies. In addition, there is no systematic evaluation of the levy fund's impact on work productivity or on training results in relation to costs.

6.4.3 As Kenya moves into a more challenging industrial phase, there will be need for comprehensive actions to tackle the shortcomings identified in the training system. On the job training will be emphasized in both public and private sectors given its superiority to training in formal institutions. It is far less expensive, bring trainees in contact with machinery and equipment currently in use and hence keeps them up to date. Co-ordinated action between Government institutions and the private sector during the Plan period will focus on increasing the role of the private sector. A key aim will be to come up with a training system that will provide a less painful transition from education and training institutions to work at all levels by focusing on the production of employable graduates. In particular, people must be taught in our formal educational settings how to learn on their own, how to adapt to changing circumstances, and how to adjust even their life styles to opportunities that will emerge in the future.

6.4.4 Measures will be taken to cater for the special needs of industry. The MRTTT through the D.I.T will investigate modalities for improving the resource levels of industrial training institutions and re-orienting their curricula to meet the specialized skills requirement of industry. An increased role for the private sector in the management of mandated training funds will be an integral part of any changes as a prerequisite for increased private sector funding for industrial training. The Kenya National Occupational Classifications Standard (KNOCS) will continue being revised by the MLMD to harmonize occupational qualifications, including incorporation of a dictionary of occupations and skill levels required to perform the different tasks involved. The MLMD will institutionalise a review procedure to ensure that the KNOCS are not overtaken by technological and skill developments. Appropriate planning and development models will also be formulated to facilitate integrated planning. The MEd, MRTTT and MLMD will form a committee to harmonize and co-ordinate the development of curricula as well as to provide a master plan or policy framework to tackle the shortcomings on the curricula front. Finally, certification for all national examinations other than university level will be co-ordinated through the KNEC, and will involve the above-mentioned Ministries, the MCI, private sector actors and relevant NGOs. Legislation will be enacted to enable KNEC to undertake the co-ordination role.

6.4.5 There is a large number of graduates with first degrees in natural and physical sciences who are not eligible to proceed to post graduate studies. Such graduates will have the option of converting to technologists by providing them with hands on capabilities. Short term courses of between six to twelve months will be introduced at the universities and the national Polytechnics in all the scientific and technical disciplines. They will be offered to first degree holders on either a full time or part time basis. The courses will be biased in favour of industrial entrepreneurship. The universities and other training institutions will implement this during the Plan period.

(b) Training of Research and Development Personnel

6.4.6 A review and assessment of the short, medium and long term requirements of scientific manpower, paying attention to adequacy in numbers, relevance and quality, are critical to the future development of national scientific and technological research capacity. Manpower development and training needs will be assessed with a view to determining how well they match the requirements of a national human resource capacity and the urgency of meeting national development challenges, including, research and development, and other skilled manpower requirements. The National Council for Science and Technology (NCST) will take a lead role in carrying out this review within the first year of the Plan period.

6.4.7 Although the country has a large number of first degree holders, the number of post graduates is still deficient. This has been demonstrated by the current competition for scarce manpower by universities and research institutions. Post graduate schools will therefore be established in the public universities to ensure that as many of the graduates who have the necessary qualifications are given opportunities to do post graduate studies. For every area of study, emphasis will be laid on its role in industrialization.

(c) Training in the Public Sector

6.4.8 Human resources have been recognized as the most important resource the country has in terms of the availability of an adequate supply of the right kind of trained manpower, in the right places and with the right knowledge and practical skills. Hence, human resources in the Public Service must be well trained, adaptable, and capable of performing different tasks. To mould a leaner and more efficient Civil Service, the Government, through the Directorate of Personnel Management, will focus on:

- demand driven, client-centred training in order to meet the needs of the service and thereby be able to compete effectively with the Private Sector in providing training. This will allow greater flexibility for skills from the Public Sector to move into the Private Sector and vice-versa;

- training and retraining of Public Servants, especially in management skills at all levels and professions; and

- expansion of training budgets both at the Directorate of Personnel Management and Ministerial level to meet challenges of training.

6.4.9 The funding for these programs will initially be sourced from savings arising out of the on-going Civil Service Reform Programme, before being developed into self financing revolving funds.

6.5 EMPLOYMENT AND LABOUR MARKET POLICIES

(a) Major Employment Issues

6.5.1 The rapid and comprehensive economic reforms that Kenya has undertaken have led to changes in the employment situation, with respect to increased participation of women in the labour force and the rise of unemployment, especially among the youth. The increased participation of women in the labour force is mainly due to the opening up of opportunities occasioned by the improved access of women to education. Participation rates have risen for urban women, rising from 30 percent in the early eighties to 56 percent in 1995. However, women's employment is still characterized by low productivity, low pay and long hours of work. With respect to the rural areas, rural women still spend a disproportionate amount of their time on unpaid work, limiting their access to income earning opportunities. They also have a limited role in formal employment, while off-farm work often compromises their traditional roles. In addition, women are disproportionately represented in the informal sector. The upshot is that average earnings for women are less than half those of men.

6.5.2 The increasing number of youth raises an additional employment problem. Youth are disproportionately represented among the unemployed. Out of 450,000 pupils who complete school each year, only 150,000 proceed to secondary schools while youth Polytechnics can cater for barely 40,000. As a result, the majority of the youth remain unskilled, and this inhibits their opportunities for gainful employment in either the formal or informal sectors.

6.5.3 An additional employment issue is the mix between formal and informal sector employment among non-agricultural employees. Informal sector employment is significantly more labour intensive and less expensive to create than formal sector employment. There is the additional issue of linking the two sectors, with the informal sector acting as a provider of inputs for the formal sector, as well as an active and potential market.

(b) Employment Policy

6.5.4 Employment policies that will be adopted during this Plan period will be aimed at facilitating rapid industrialisation. The objectives of the policy will be to emphasise the promotion of a productive and freely chosen employment as a priority and fundamental base for national, economic, and social policy; improvement in the productivity of labour, provision of skills and knowledge for the work force; and the stimulation of economic growth to reduce the incidence of poverty through maximising the utilisation of labour and human resources in income earning opportunities. Other objectives include respect for the basic rights of all segments of the society to work irrespective of sex, age and geographical location; and the need to ensure full participation of employers' and workers' organisations in all stages and aspects of policy implementation.

6.5.5 The strategies that will be employed by the MLMD entail the following:

- Providing an enabling environment for sustained employment growth;
- Ensuring supportive population, migration, and regional development policies;
- Promotion of rural farm and non-farm employment;
- accelerating Small Scale and Jua Kali Enterprises; (SSJKE) as a strategy for employment promotion;
- providing guidelines for mainstream special groups, such as women, persons with disabilities, and ex-prisoners;
- improving working conditions and the environment; and
- enhancing the participation of employers and workers and improving industrial relations.

6.5.6 To facilitate a greater and more productive role for women in the labour force, several actions will be taken. Firstly, the Office of the Attorney General will spearhead the enactment and enforcement of laws that remove barriers to the economic participation of women. Additional support to the informal sector under the SSKJE will involve a gender component. In liaison with NGO's and donors, the MCSS will develop and implement mechanisms to empower poor women, especially those heading households, with a view to expanding their access to credit and improving the plight of young girls who are forced to leave school to take care of their families. To enable women to reduce the time spent on unpaid family work, the MCSS, the MRTTT, and the OVP & MPND will co-ordinate efforts to develop and distribute time saving devices and infrastructure.

Wage Guidelines

6.5.7 The Wage Guidelines were introduced in 1973 to guide the Industrial Court in adjudicating a particular trade dispute or in considering the registration of a particular bargaining agreement. The latest Guidelines were issued in June 1994. They affect wage determination in the modern private sector by setting the minimum and maximum limits for negotiated wage settlements. The Guidelines have limited disruptions between workers and employers. Guidelines specify that productivity should be a major factor in determining earnings and stipulate that skills acquisition should be rewarded, hence creating an incentive for skills acquisition. However, in compensating workers, the Guidelines fail to distinguish between skilled, non-skilled and less skilled workers. Firms are encouraged to reward workers according to the productivity improvements.

6.5.8 To encourage the growth of the more efficient firms and the economy in totality, the use of monetary and fiscal policy to control inflation will be intensified. Further to this, the Wage Guidelines will be done away with to allow market forces to dominate in determining rewards to labour given that markets for other factors of production have been liberalised.

6.5.9 Public sector wages, on the other hand, are not affected by the Guidelines. They are set by the Government through periodic salary reviews and schemes of service for various categories of civil servants and other public sector employees. However, this approach has resulted in public sector wages lagging behind modern private sector wages by very large proportions leading to a loss of experienced and critical manpower to the private sector and abroad, as well as poor performance of the civil service in general. Hence, a new approach will involve deliberate efforts by the DPM to match public sector wages with those in the private sector. The Government has recognized that demand driven, client oriented training that enables greater flexibility in skills between public and private sectors calls for the development of an incentive package that enables it to retain her professionals. In this regard, within the framework of the Civil Service Reform Programme, the DPM will adopt annual surveys of private enterprises to determine civil service job pay equivalent scales. To facilitate this the current general job groups will be abandoned and each scheme of service will have its own pay scales aligned with similar scales in the private sector. Modalities for implementing this component of the Civil Service Reform will be in place by 1998.

Redundancy Regulations

6.5.10 The labour laws in Kenya distinguish between three types of termination, namely normal termination of service, summary dismissal, and termination on account of redundancy. Some of the conditions that may warrant summary dismissal are specified in the Employment Act, Cap 236 of the laws of Kenya. The affected workers are free to challenge termination or dismissal, particularly through their trade unions. The Trade Disputes Act, Cap. 234 and the Employment Act, Cap 226 of the Laws of Kenya contains the legal provisions for regulating the issue on redundancies. The current provisions stipulate that termination of employment on account of redundancy shall not be effected unless the union of which the employee is a member and the local Labour Officer are notified of reasons for and the extent of the intended redundancy. Furthermore, "termination of employment through redundancy shall, whether or not there is an agreement between the employer and the employee as to the terms of redundancy, be deemed to constitute a trade dispute..." This system has proved to be too cumbersome and inflexible for a market driven economy.

6.5.11 Given all the above, the MLMD, in collaboration with the Office of the Attorney General, the Federation of Kenya Employers (FKE), and the Central Organisation Trade Unions (COTU), will initiate discussions towards introducing reforms in the labour market as a matter of urgency. The discussions will encompass the development of an industrial relations system that encourages the growth of representative organisations of workers and employers, the promotion of flexibility and rewards for productivity.

(c) Work Culture and Ethics

6.5.12 It is recognized that poor work culture and ethical standards lead to, among other things, laxity, corruption, nepotism, and ultimately to sub-standard products which cannot withstand competition in a liberalised export-oriented economic environment. The drastic shift away from the cumbersome regulatory framework and inward looking policies of the past means that Kenya's human capital has to change its work culture and ethics. This requires upgrading of general skills, eliminating managerial weaknesses, strengthening technological capacities and improving efficiency of the civil service. It will also be important to promote change of work culture for both employers and employees. Management's efforts to improve productivity and profits must be accepted by workers. On the other hand, managers must learn to regard workers as their essential partners rather than as just suppliers of a factor of production. Within this context, a productivity movement should be an integral component of the evolving industrial culture.

6.5.13 Within the current global economy, there is increasing evidence of a commonality with respect to the underlying business principles and practices used in interaction between different enterprises. Recent emphasis has turned to benchmarking of daily operations as a means of strengthening the capabilities of institutions. Benchmarking is defined as the process of continuous measuring and comparing of an organisation, product or process against leaders anywhere in the world to gain information which will help the institution take action to improve its performance. Benchmarking is a powerful tool that has been used to transform organisations, and will be encouraged for adoption by Kenyan institutions, including research and development institutions. This will mainly involve private sector participation through organisations such as KAM, FKE, KNCCI and the various research institutions through the MRTTT. In particular, with the growing importance of quality standards in facilitating international trade and domestic productivity, the introduction of Total Quality Management (TQM) in companies will play a major role in changing work habits with respect to quality. It is estimated that it takes at least seven years for the application of TQM to take root in an organisation. Thus, it is important to begin the process early. During the Plan period, actions already begun by FKE, the KEBS and donor organisations will be accelerated and strengthened.

6.6 POVERTY INTERVENTIONS

6.6.1 The long term strategy for the alleviation of poverty is to achieve high rates of sustainable economic growth as a means of generating earned incomes for those of working age. Implementation of the policy measures and actions contained in the rest of the Plan is expected to lead to a rejuvenation of economic growth, improved per capita income and a reduction of poverty levels. In addition to this, however, the Government recognizes its obligation to ensure a minimum quality of life for its citizens. In this context, therefore, some short term measures have been designed to cushion those segments of the population that have been adversely affected by the ongoing structural adjustment measures. The following section evaluates the problem of poverty in Kenya, while the specific intervention measures are covered in the second part under Social Dimensions of Development.

(a) Determinants of Poverty in Kenya

6.6.2 Poverty manifests itself in the form of hunger; illiteracy; and lack of access to basic education, drinking water, minimum health facilities and shelter. According to the 1992 Welfare Monitoring and Evaluation Survey (WMES), the level of absolute poverty in rural areas was 46.4 per cent while in urban areas the rate was 29.3 per cent. The 1994 Survey did not indicate significant shifts in these figures. The major socio-economic characteristics of the poor, which form the basis for targeted intervention, include:

- Female headed households constitute 30 per cent of Kenya's households of whom 53 per cent are poor. This has mainly been caused by limited ownership and access to land.

- The Arid and Semi Arid Lands (ASALs) form specific pockets of the poor. Poverty in these regions is caused by lack of resources other than livestock, poor integration with the rest of the economy, and drought.

- The rural poor are mainly subsistence farmers, the landless and pastoralists whose incidence of poverty in

1992 was 52 per cent, 50 per cent and 43 per cent respectively.

- According to the 1992 WMES, 57 per cent of household heads who had no education lived below the absolute poverty line.

6.6.3 Increased inequality may raise poverty in the short run , because some people (or parts of society) necessarily benefit more than others in the process of adjustment. Inequality increased in the rural areas in all provinces during the 1982-92 decade. As measured by the adult equivalent expenditure, for example, the Gini coefficient increased from 0.40 in 1982 to 0.49 in 1992. The Gini coefficient for 1992 for urban areas was about 0.45. The distribution of income has continued to worsen. For example, in 1982 in the rural areas, the bottom 20 per cent of the population received 4.9 per cent of the income while the top 20 per cent received 56.9 per cent. By 1992 the distribution was 3.5 per cent and 60.2 per cent respectively. The poorest 20 per cent were even worse off in the urban areas in 1992, where the lowest 20 per cent received 2.9 per cent and top the 20 per cent received 58.8 per cent.

6.6.4 Measures to narrow income inequalities will include the attainment of rapid market based growth and the creation of income earning opportunities, fiscal redistribution through progressive taxation by the MOF, equalisation of Government services provided for all parts of the country through the regional development authorities and avoidance of increased marginal tax rates by the MOF.

(g) Social Dimensions of Development (SDD).

6.6.5 Details of Government's conceptual framework and projects aimed at alleviating poverty are contained in the policy document *Social Dimensions of Development: an approach to Human Centred Development and Alleviation of Poverty.* As already stated, these interventions are meant to be temporary and transitory. The long term objective is to attain accelerated economic growth and employment creation through effective reforms.

6.6.6 As detailed in Chapter 2, the Structural Adjustment Programme has generally encompassed the following: reduced relative expenditures on basic social services, mainly education and health; cost sharing schemes, price de-control and privatisation; increased cost of agricultural inputs; import liberalisation resulting in intense competition of local products with imported, and often subsidised, commodities. In this transitory process, the poor have been exposed to severe socio-economic risks, including worsening poverty. Hence the need has arisen to restructure the Government's social safety net so as to provide effective poverty relief through targeted interventions . The SDD programme has been designed by the Government with the participation of major donors, stakeholders such as NGOs, the private sector and beneficiaries. Its design features include precise identification of beneficiary/target groups, efficient reach/adequate coverage of target groups, sound choices of indicators of vulnerability as the criteria for priority rating; and utilisation of existing capacity in project implementation.

6.6.7 The broad generic areas of intervention, over this Plan period, consist of the following:

- labour intensive public investment programmes targeting the poor and increased private sector involvement in the provision of basic social services (education, health, water and sanitation, roads, housing and shelter);
- women and children involved in development; food and nutrition projects and population programmes;
- promotion of small scale industrial agriculture and service enterprises ; youth and school leavers development and programmes to address unemployment and retrenchment;
- promotion of a sustainable environment, resource conservation, and decentralised development;
- social mobilisation and sensitisation, development of an information base for monitoring and evaluating poverty, training and institutional capacity building; and

- protection of human rights; rehabilitation of internally displaced persons; promotion of good governance; peace and conflict resolution; insecurity and crime prevention; and emergency relief.

6.7 YOUTH DEVELOPMENT

6.7.1 Youth development in Kenya poses special challenges that will necessitate the introduction of specific intervention measures. As already mentioned, the youth suffer disproportionately from unemployment, and are constrained in their efforts to acquire skills. Lack of collateral limits their access to credit while their usually limited work experience is often a hindrance in choosing appropriate business ventures. In addition, the fact that markets for labour, capital and products in Kenya have yet to become fully competitive, implies that market forces alone cannot be relied upon to cater for the needs of the youth. This calls for Government interventions in the short to medium term to assist the youth to participate fully in the country's development process.

6.7.2 Kenya's youth development programme will focus on components to tackle the above-mentioned problems peculiar to the youth. The National Youth Development Fund (NYDF) is in place to fund schemes to promote youth employment, through self help groups. This fund will be made operational through the District Development Committees (DDCs). Additional support for the fund is expected through the *Harambee* movement.

6.7.3 During the Plan period, additional activities will be promoted that target the youth. Increased use of labour intensive methods in road construction will generate youth employment at the district level. The implementation of minor irrigation schemes using labour intensive technologies will also facilitate youth employment.

6.7.4 To upgrade skills for the rural youth, the MRTTT will study modalities of expanding and providing the Youth Polytechnics with modern equipment with a view to providing those skills that are both in short supply as well as those that can be used in the local communities. The possibility of expansion of bursaries and the creation of revolving funds for education at this level will also be investigated. In addition, the MCSS will upgrade and expand its youth counselling networks to improve the career and business choosing skills of the youth.

6.8 HEALTH

6.8.1 Good health is both a basic right and a pre-requisite for rapid socio-economic development and a healthy population is a basic requirement for successful industrialisation. The Government recognises this fact and has invested heavily both in the expansion of health personnel and in health infrastructure. It is mainly as a consequence of these efforts that life expectancy has risen from 40 to 58 years between 1960 and 1994, infant mortality has declined from 126 per 1,000 to 60 per 1,000 between 1962 and 1994 and immunization coverage has risen to 70 per cent from under 40 per cent at Independence. These improvements will feed into the industrialisation drive as Kenya saves resources not needed for treatment of illnesses and as healthier workers work more productively than before. Additionally, the health sector is a key consumer of industrial products, such as equipment and pharmaceutical products.

(a) Disease Patterns

6.8.2 Preventable, vector-borne diseases are generally the main causes of morbidity and mortality nationwide. Malaria and respiratory diseases account for almost 50 per cent of all reported diagnoses in Government health facilities, and intestinal parasitic infections and diarrhoea increase this number to almost 60 per cent of all reported cases. Further, in considering specific groups, diseases and conditions of pregnancy and childbirth account for about 27 per cent of the total burden of disease, measured in terms of life years lost.

6.8.3 The single most important health challenge that Kenya has faced in its post independence history is the HIV/AIDS pandemic. It is the only known health problem that has the potential to reverse the significant gains made in life expectancy and infant mortality. By 1993, the National AIDS and STD Control Program (NASCP) had reported a cumulative total of over 39,000 cases of full blown AIDS. This figure rose to 63,179 by 1995, indicating an alarming expansion of the infected population. Indeed, given that many cases go unreported, it is believed that the actual population of AIDS sufferers was as high as 190,000 by 1995, while the HIV positive population was over one million. Worse still, the pandemic has not yet stabilised. Indeed, an estimated 230,000 people are expected to become infected with the HIV virus in 1996 alone. Hence, the current prevalence rate of 7 per cent is expected to rise to 10 per cent by year 2000 in the absence of a comprehensive intervention programme.

6.8.4 The HIV/AIDS pandemic is becoming much more than a health problem as it encompasses economic, social and cultural dimensions. With respect to industrialisation, the pandemic raises direct production costs of business enterprises through additional health expenditures, additional retraining expenditures as ill workers are replaced, increased absenteeism due to morbidity, and lower productivity due to the onset of illness, and uncertainty with respect to manpower planning. The nation loses expensively trained manpower while the cultural, legal and socio-economic consequences of the disease are aspects with which the country has yet to cope.

(b) Provision of Health Services

6.8.5 The health care delivery system in the country is composed of a total of 3,500 health facilities (209 hospitals, 527 health centres and 2,764 sub-health centres, dispensaries and clinics) with 50,000 beds and cots, and a work force of approximately 80,000. The MOH provides 69 per cent of this manpower. The physical infrastructure translates into 1.9 beds for every 1,000 persons. In addition, 42 per cent of the population are within 4 km of a health facility while 75 per cent are within 8 km. Beyond treatment of diseases and illnesses, the system provides other integrated programmes aimed at preventing diseases, promoting good health and protecting Kenyans from environmental, industrial and other health risks.

6.8.6 There is a tendency for the majority of diseases which are manageable at health centres and dispensaries to be treated sub-optimally at referral hospitals. A recent study has shown that the cost of treating the same case of disease in a hospital is ten times the cost of treating the patient at a lower level facility. There is, therefore, ample scope for improving the quality and availability of basic health services in health centres and dispensaries as a means of improving efficiency of health services delivery. There is also clear evidence that expenditure is skewed against the poor, with the poorest decile receiving roughly half the public subsidy received by the richest decile. This is on account of the less than 30 per cent of the total health budget being spent on rural health facilities, although they are the most accessible facilities to the rural poor.

6.8.7 The health sector is diverse in terms of providers, with the Government providing approximately 43 per cent of funding and the remaining costs being shared among religious organisations, other NGOs and private providers. While non-Governmental providers focus on curative services with limited provision of preventive services, Government provides preventive, promotive, curative and rehabilitative services, and other essential public health activities. By 1994, it was estimated that 3.8 percent of GNP was spent on production of health services while Government spent roughly 7.9 per cent of its revenue for that purpose.

(c) Health Sector Problems

6.8.8 Indicators of health in Kenya are generally favourable, but the gap between the demand and supply of health services continues to widen. There is also a problem of quality. The sector has not been able to expand as rapidly as the population to ensure adequate coverage, accessibility and acceptable quality of health services. This situation has been exacerbated by low levels of incremental financial resources, the inefficient utilisation of existing resources, the emergence of new diseases, and growing appreciation of modern health care.

6.8.9 The secular decline in health expenditure has affected the ability of Kenya's public health sector to provide health care services, and the situation is likely to worsen in the face of industrialisation if appropriate measures are not taken. The share of Government recurrent expenditure allocated to health is projected to be 9.6 per cent in 1996/97 compared to 9.26 per cent in 1979/80. However, expenditures were at their lowest in 1988/89 (7.35 per cent) before rising steadily to about 8 per cent in 1994/95. Per capita expenditures have steadily declined from a high of US$9.82 in 1980/81 to US$6.2 in 1995/96, which is a 36 per cent drop in US$ terms. This situation will be aggravated by the HIV/AIDS pandemic. Moreover, 70 per cent of the recurrent health budget is tied to staff emoluments, leaving only 30 per cent for supplies.

6.8.10 There are three dimensions to the staffing problems. Firstly, there is overstaffing at lower cadres and deficits in professional staff. Secondly, there is over concentration of key personnel in urban areas with over 80 per cent of doctors being based in urban areas which account for less than 20 per cent of the total population. Thirdly, there has been a mushrooming of private clinics resulting in many experienced staff leaving the public service for the private sector.

6.8.11 In terms of resource allocation, there are two central issues: the distribution of resources between curative and preventive health care; and the allocation of expenditure between urban and rural areas. With respect to distribution, curative care accounted for a projected 67 per cent of total recurrent expenditure for 1996/97 while rural and preventive health care accounted for 21 per cent. This expenditure mix discriminates against rural and poor populations. With respect to the allocation of expenditure, the Kenyatta National Hospital (KNH) accounted for 16.3 per cent of total recurrent expenditure, while all rural health centres, the first point of contact for rural populations, accounted for 21 per cent. Hence, health expenditures clearly favour the urban areas.

(c) Overall Health Sector Policy Goals and Reforms

6.8.12 The policy of Government, as relates to the health of Kenyans, is clearly stipulated in the *Kenya Health Policy Framework (1994).* Health policy in Kenya revolves around two critical issues, namely, how to deliver a basic package of quality health services to a growing work-force and their dependants, and how to finance and manage those services in a way that guarantees their availability, accessibility and affordability to those most in need of them.

6.8.13 The MOH will re-orient and strengthen the focus of this policy guidance to further support industrialisation and improve the health status of the population. Structural and financial reforms stated in the Policy Framework will be articulated to ensure that health services are equitably distributed and are responsive to the needs of the majority of Kenyans. As a first step, the MOH has put in place a Health Sector Reform Secretariat charged with prioritising reform measures, assisting provinces and districts in the preparation of action plans, and providing guidance on harmonizing explicit agreements between MOH and other providers.

6.8.14 The MOH will consider the possibility of contracting-out the management of the moribund municipal health facilities to private providers with clear service delivery and quality targets and fixed price contracts. Managed care arrangements for small employer groups, or other types of managed care schemes may provide the most effective means of delivering health services to the urban workforce.

6.8.15 With the expansion of mandatory health insurance benefits to cover outpatient medical care costs, employers, who today contribute to indemnity health insurance schemes on behalf of their employees, may have to be offered incentives to persuade them to contribute to social insurance schemes that provide a better benefits package and a fairer level of risk sharing. Allowing competition between accredited social insurance schemes could provide immense health benefits to the industrial labour force, with both employers and employees free to choose in which scheme to put their premia. The Ministry of Health will also shift part of its financial burden of curative care to private providers, NGOS and Private Insurance Schemes.

6.8.16 The health insurance sector will be reformed through the development of innovative financing mechanisms that guarantee the accessibility of basic packages of health services to all, based on need and not ability to pay. In particular, legislation will be enacted to transform the National Hospital Insurance Fund (NHIF) into an effective, **pay-as-you-go** health insurance fund with mandatory coverage for all formal sector workers.

(d) Occupational Health and Safety Services Policy

6.8.17 Occupational Health and Safety Services (OHSS) has the broad objective of promoting safety and health of all workers at the work place. The promotion of safety, health and welfare of workers contributes to industrial peace, enhances productivity, contributes to social-economic development, improves management of the work place, and reduces pollution and environmental degradation.

6.8.18 As industrial development becomes entrenched in the economy, the matters associated with Occupational Health and Safety will become more complex. New Occupational Health and Safety hazards in the work places will increase, demanding more highly trained manpower and specialised equipment, such as medical examination equipment, industrial hygiene survey equipment and plant safety monitoring equipment. Population flowing into the urban areas may also expose the population to various health risks associated with overcrowding, which can result in various social and economic consequences.

6.8.19 As regards occupational health and safety, some of the issues that will be considered relate to the many exposures that may adversely affect workers' health and well being. The most common occupational risks are: occupational diseases, accidents, fire out breaks/explosions and stress. Industrialisation is bound to increase the magnitude and severity of these occupational health risks. Enforcement of regulations in the health sector, particularly those related to provision of services and workers' safety, will be vigorously enforced (and reviewed where necessary) as stipulated in relevant Acts. These include the Factories and Other Places of Work Act and the Public Health Act. During the Plan period, a comprehensive review of these two Acts will be carried out by the Office of the Attorney General to bring them up to date and to enable them to cover informal sector workers who are expected to constitute a larger share of the labour force.

6.8.20 During the Plan period, the MLMD will spearhead efforts to improve the occupational health status of Kenya's workers. The MLMD will investigate the possibility of establishing a National Occupational Health and Safety Training Institute capable of catering for the needs of the sub-region. The Factories and Other Places of Work Act will be reviewed to accommodate technological changes, including the setting up of standards on Occupational Health and Safety matters. Within this context, the MLMD will carry out an exercise to document all hazardous occupations and the preventive measures expected to be followed in order to ensure workers are adequately protected.

6.8.21 To protect Kenya consumers from the health risks of contaminated food, several steps will be taken during the Plan period. Firstly, the MOH will ensure regular inspection of food premises to ensure they conform to health requirements. Secondly, the inspection of food imports at the ports of entry will be intensified and improved equipment provided to detect emerging foreign diseases. The promotion of food hygiene will be made a subject of curricula in schools. Finally, the existing food quality monitoring capacity will be strengthened at district level by upgrading sampling equipment.

(e) HIV/AIDS Pandemic

6.8.22 The prevalence of AIDS is highest among the 20-49 year age group, who form the pool of trained manpower required to work in industry. The National AIDS and STD Control Programme estimates that over 190,000 Kenyans have died of AIDS since the epidemic was first diagnosed in Kenya in 1984. The number of people currently alive but infected with the HIV virus in Kenya is estimated to be 900,000 - 1,000,000 adults and 60,000 - 80,000 children under the age of five years. Most of these people do not know that they are infected because they have not developed symptoms. It is projected that if current infection rates and mortality trends continue that at least one million people in Kenya will die of AIDS by the turn of the century.

6.8.23 If the spread of the virus is not controlled, the economic impact of the disease will be monumental. It is currently estimated that the cumulative economic impact could be as high as 15 per cent of the GDP by the year 2000, up from 2 per cent in 1994. From a gender perspective, women are doubly at risk, firstly as potential victims and secondly as traditional health care providers. Other expected consequences of the pandemic are an increase in families headed by children, declining educational enrolments as children are forced out of school to care for sick parents and increased child labour in the informal sector as children attempt to supplement the income earning activities of sick parents. From a fiscal standpoint, the pandemic threatens to tie up the entire MOH recurrent budget by the end of the century. Industrialisation can also facilitate the spread of HIV, given that the industrialisation process entails high population densities and mobility.

6.8.24 In recognition of these facts, the *Government Policy Framework Paper on AIDS* and STD/AIDS control program spell out the strategies and policies that will be pursued to reduce the spread of HIV and respond to the impact of the epidemic over the next fifteen years and beyond. At the national level, specific strategies that will be adopted are:

- strengthening the national capacity to respond to the AIDS epidemic and its consequences;
- enhancing the co-ordination of AIDS control and related programmes;
- mobilising resources from all potential sources;
- conducting research and providing training; and
- monitoring the trends of the HIV/AIDS pandemic.

6.8.25 At the district level, strategies for mitigating the impact of HIV/AIDS will be intended to stimulate the local communities to take action, and will include:

- mobilisation of societal will to recognise their strengths and weaknesses in handling AIDS- related concerns;
- stimulation of communities to identity and to participate in community based programmes;
- support of community based organisations, including support groups;

- peer education and counselling; and

- community home-based care.

6.8.26 Because of the need for a multi-sectoral approach to AIDS prevention and control, the importance of effective mobilisation, and the co-ordination of activities and resources of the various actors, the Government, through the MOH, will establish a National AIDS Council so as to expedite AIDS control activities. The Council will operate with a degree of autonomy and will be expected to mobilise resources for AIDS Control programmes from the Exchequer, the private sector, NGOs, and other collaborators both locally and internationally to achieve its objectives. During the first year of the Plan, the MOH will release a Sessional Paper specifying policies and programmes for controlling the pandemic.

6.9 SHELTER AND HOUSING

6.9.1 Shelter incorporates both housing and the entire environment within which housing must function. Adequate shelter is that which provides protection from the elements as well as security, privacy and space for socio-economic activities for the advancement of the quality of life. From an industrialisation standpoint, housing is important for employment creation in the construction industry, for providing a market for industrial products, such as cement, sheet glass, steel, for enabling lower costs of production through reduced housing costs (and thus) labour costs, as well as providing agglomeration economies since the spatial distribution of the population is to some extent determined by the provision of housing.

(a) Current Status of the Housing Sector

6.9.2 Since independence, the Government has adopted several policies geared to solving the housing problem, starting with a Sessional Paper in 1966, and followed up by proposals in every subsequent Plan. Despite this, the current housing situation in both urban and rural areas is deplorable with most housing failing to meet minimum standards of durability, sanitation and space. Specifically, it was determined in a housing survey in 1993 that only 24.7 per cent of housing had durable floors and 21 per cent durable walls; barely 10 per cent of houses had access to flush toilets while 16.8 per cent had no access to sanitation facilities; only 14.4 per cent had piped water while less than 40 per cent had access to clean water. Furthermore hardly 10 per cent of houses had electric lighting while 43 per cent of households had more than two people per living room, indicating crowding. Out of these, 16 per cent had over 5 people per living room, indicating chronic over-crowding.

6.9.3 These overall statistics mask wide variations between - urban and rural areas. Furthermore, the 1993 data reveal a worsening trend compared to surveys carried out in 1983. To reverse this trend, there is a pressing need for new initiatives in the housing sector by all stakeholders. The need for new initiatives is particularly necessary given that housing demand is expected to rise in urban areas from 96,600 in 1997 to 123,200 in 2001 and in rural areas from 234,000 to 255,500 annually over the same period. Table 6.4 shows the projected demand and the expected cost of meeting that demand. The figures are calculated based on interpolations of 1988 and 2003 estimates.

TABLE 6.4: ANNUAL HOUSING NEEDS AND INVESTMENTS IN 1997 AND 2001

	1997			2001		
	Urban	Rural	Grand Total	Urban	Rural	Grand Total
Units (000s)	101.5	287.4	388.9	127.7	303.6	431.3
New Units	96.6	234	330.6	123.2	255.5	378.7
Investment (Kshs Bln)[a]	27.62	32.76	60.38	39.04	38.66	77.7
Fml Finance Kshs Bln [b]	16.57	13.11	29.67	23.42	15.46	38.89
Infrastr-ucture In-vestments (Kshs Bln)	3.35	22.84	26.18	4.23	25.47	29.7

Notes:a-1995 prices b-Assumes 60 per cent investment from formal sources in urban areas; 40 per cent rural areas. c-New units only; gross densities of 1,500 person per hectare are assumed. Fml = Formal, Bln = Billion

6.9.4 Meeting this demand will require Kshs.16.6 billion in constant 1995 prices just to meet total urban formal financial needs in 1997 alone, rising to Kshs.23.4 billion in 2001. This is in contrast to total commercial bank credit to the private sector, which totalled Kshs.26.3 billion in 1995. Hence, formal sector resources are unlikely to be able to cater for even the 60 per cent of urban housing that is projected for formal sector financing. Indeed, in the past, the formal sector has rarely provided more than 20 per cent of required financing for urban housing. Financing is thus a major constraint to the sector. Other constrains include:-

- local authority by-laws, outdated building code regulations and zoning laws that make housing very expensive and encourage non-adherence to regulations;
- lack of adequate infrastructure to facilitate private sector involvement, especially roads, water and electricity;
- lack of suitable land, especially serviced land. This is mainly due to the slow procedure of issuing title deeds for land converted from agricultural to residential use;
- lack of a comprehensive land use and housing policy as well as limited community participation in planning; and
- limited institutional capacity in both central Government ministries and Local Authorities; inadequate co-ordination of actors often leads to duplication of efforts.

6.9.5 These and other identified constraints lead to several policy implications. There will be need for visionary and comprehensive actions on several fronts. These include, financing, legislation, technological aspects, land issues, environmental issues as well as comprehensive housing policies with respect to urban housing, slum upgrading, improving infrastructure for informal housing, and reconstruction of the dilapidated residential infrastructure in urban areas.

6.9.6 To address the above-mentioned problems, the Government prepared a plan of action in 1995. The action Plan was prepared with the objective of putting in place strategies and programmes necessary for meeting the two goals of adequate shelter for all and sustainable human settlements in urbanising Kenya. This Plan constituted Kenya's contribution to the 1996 Second United Nation's Conference on Human Settlements held in Istanbul, Turkey. The Plan of action was prepared in consultation with the Local Authorities, the private sector, NGOs, Community Based Organisations (CBOs) and other stakeholders in the shelter and human settlement sector. It incorporates support programmes for capacity building, enhanced participation of communities and civic engagement. The Plan of action will provide the basis for tackling shelter related issues. Policies relating to specific problem areas will be as follows:

- Infrastructure provision threatens to be a persistent bottleneck to upgrading low income shelter. Firstly, the MPW&H will produce by January 1998 a comprehensive long term plan for upgrading all of the slum and squatter settlements in major municipalities based on experience gained in the Mathare A-4 scheme. Secondly, the MLG, in conjunction with Local Authorities, will come up with a plan of action to reconstruct dilapidated residential infrastructure as well as guidelines to boost rates to cover the cost of maintaining this infrastructure, once repaired. Thirdly, a comprehensive plan to upgrade the infrastructure in informal but permanent housing estates in the major towns will be drawn up by the MLG, MPW&H and the relevant Local Authorities, taking into account modalities for co-opting the private sector through the Build Operate Transfer (BOT) approach identified in Chapter 5. All these plans of action will be in place by January 1998.

- To address the problems relating to land, several actions will be taken. Firstly, the Ministry of Lands and Settlements (MLS) will review and re-organise procedures for providing and transferring title deeds in urban areas to speed up the process. This will mainly involve computerisation of the lands registry, retraining of staff and incorporation of results-based pay. Secondly, the MOF will consider institutionalising an ad-valorem tax on urban land based on its market value as a means of reducing speculative land purchases. The

MLG will carry out a thorough review of zoning laws and land use regulations in all municipalities with a view to working out guidelines to ensure that they conform to market conditions. Finally, urban development will be integrated with the servicing of urban land.

- Lack of a comprehensive land use and housing policy has been a major bottleneck to planning. During the first two years of the Plan the MWP&H and the MLS will come up with a comprehensive Plan incorporating needs for rural-urban balance, industrialisation and urbanisation.

- Lack of adequate institutional capacity at both central and local Government level has been a major bottleneck in the implementation of shelter policies. To address this, firstly, a review of by laws, building codes, procedures and regulations relating to shelter will be carried out by 1998 with a view to eliminating those that do not conform to private sector led growth. Moreover, the public sector will be re-organised to allow NGOs and communities to fill in institutional gaps. Secondly, the introduction of productivity-based pay and improved training will boost the productivity of workers; in addition, clear-cut rules and procedures will be introduced to assist workers to carry out their duties.

- To tackle the environmental side effects of shelter provision, the National Action Plan's (NEAP) policies with respect to legislation, institutional framework and linkages will be incorporated in all housing policy documents.

6.9.7 The combined impact of the implementation of these measures will improve incentives for the private sector to mobilise resources and to invest in the housing sector. The Government will complement these efforts by establishing a secondary market for mortgages and re-organising the NSSF into a pension fund that will be encouraged to lend funds to employers for the construction of low cost housing for their employees provided such investments are viable and in line with the restructuring of NSSF as presented in Chapter 2. Actions by the MOF, the MPW&H and the MLG in these areas will be based on well prepared Plans to be completed by January, 1998.

6.10 OTHER WELFARE PERSPECTIVES

(a) Children's Welfare

6.10.1 Children comprise more than one third of Kenya's population; they are our future consumers and our future productive manpower. However, there exists no child welfare policy. This section looks at two closely related issues, namely child labour, and Children in Especially Difficult Circumstances (CEDCs).

Child Labour

6.10.2 According to the *Employment Act Cap. 226* , Laws of Kenya, child labour encompasses the working children below 16 years of age. There are no data on child labour in Kenya, but it is estimated by the MLMD, FKE, COTU and NGO's that approximately 3 million children between 6-16 years are not in school and hence may be working somewhere.

6.10.3 Child labour is particularly harmful to the country's long term development and industrialisation prospects. When children, especially girls, drop out of schools, long term productivity is lowered. In addition, Government attempts to lower the fertility rate are inhibited. Policies to improve educational participation rates can be expected to reduce teen age pregnancy and enhance the productivity of the labour force. Furthermore, the Government is in the process of drafting a Children's Act to make it mandatory for all school age children to attend school. The Act will also strengthen the legislative protection of children, especially girl children.

Children in Especially Difficult Circumstances (CEDCS)

6.10. 4 A situational analysis is needed to determine the true numbers of CEDCs. A quick survey by Provincial Children's Officers and NGOs puts the figure at 50,000 as at the beginning of 1996. In the current Plan period, the overall objective will be to contribute to the improved projection and rehabilitation of CEDC's and to address the root causes of their difficult situation. The Government will observe the convention of the Rights of the Child and the African Charter on the Rights of the Child. Under the new Children's Bill, a Council to be known as the National Council of Children Services will be empowered to supervise, control and co-ordinate all child welfare activities, while advising the Government on all aspects of children's welfare.

(b) Social Security

6.10.5 Modern day social security is viewed as a body of public measures that society may take to protect its members against economic and social distress, which may otherwise cause substantial loss of income as a result of old age, invalidity, sickness, unemployment, death of breadwinner, maternity etc. The goal of social security is the prevention of destitution through public measures. Social security should therefore constitute a safety net for the intended beneficiaries.

6.10.6 Formal social security is increasingly coming to the fore as a result of urbanisation with the consequent breakdown of traditional social security frameworks, such as extended family, nuclear family, and village and clan structures. Despite its importance, formal social security in Kenya covers only a fraction of the population, mostly those in the formal sector. The challenge facing modern social security is, therefore, how to extend social protection to the informal sector and smallholder agriculture.

6.10.7 Formal social security institutions in Kenya include the National Social Security Fund (NSSF), the National Hospital Insurance Fund (NHIF), the Workmen's Compensation Scheme, the Civil Service Pension Scheme, and other occupational superannuation schemes.

National Social Security Fund (NSSF).

6.10.8 Since its inception in 1965, the NSSF has operated as a provident fund, or lump-sum benefits scheme, catering for workers in the formal sector who are not covered by any other scheme recognised by the Minister for Labour as offering equivalent benefits. Currently, the NSSF covers nearly 20 per cent of the formal workforce. Lump sum benefits have proved to be inadequate over the years due to erosion of purchasing power by inflation. At the same time, the structure of the Fund and its corporate governance have come under increasing criticism regarding their appropriateness in the light of changing social security needs.

6.10.9 As already noted in Chapter 2, the Government will institute a comprehensive structural transformation of the Fund to enable it to participate more fully in the financial sector and to offer better social security benefits to its members. The Fund will be converted into an autonomous pension fund and part of its investment portfolio will be contracted out to reputable fund managers; at the same time, its institutional capacity will be strengthened. The range of benefits provided by the NSSF will also be widened and its scope of coverage extended to the informal sector and the self employed.

National Hospital Insurance Fund (NHIF)

6.10.10 The NHIF was established in 1966 under the NHIF Act to provide contributions to the fund and the payments of benefits out of these funds towards the medical and health care expenses of its members and their dependants. The NHIF Membership was about 1.6 million in 1994/95 with annual contributions of Kshs. 1.2 billion. Three studies carried out by the Ministry of Health revealed that the three principal problems of the NHIF were high risk of insolvency, legal constraints on the operation of the fund, and its inadequate and ineffective management systems.

6.10.11 There have also been disproportionately high payments to the private sector hospitals from the Fund, due to the rapid expansion of the private sector hospitals. Registering procedures and mismanagement have resulted in huge fraud. However, strict control measures have now been introduced, and it is expected that both the NHIF and its beneficiaries will benefit from its improved management.

6.10.12 The NHIF is being reformed as part of the overall ongoing health care reforms. These reforms involve making it autonomous from the MOH. In addition, the establishment of other health insurance schemes to compete for the funds currently monopolised by the NHIF will be facilitated by the amendment of the NHIF Act by 1998. These reforms are expected to yield a more competitive health insurance sector, better able to cater for a larger share of the cost of curative care.

(c) Harambee

6.10.13 The self-help movement exemplifies the integrative approach to national development. As a process, the self-help movement creates conditions of economic and social progress for the whole community with its active participation and fullest possible reliance upon community initiative. The movement is, therefore, a process by which local communities can raise their own standards of living through collective participation.

6.10.14 The major form of self-help movement in Kenya is through Harambee. During the Plan period, deliberate efforts will be made to refocus Harambee away from welfare towards self improvement through investments in small industries. This will involve introducing legislation governing management of Harambee funds, so that they are not abused. Action by the MCSS will refocus women's groups towards treating their self help activities as sources for seed capital for small scale industrial activities.

(d) Sports, Leisure and Recreation

6.10.15 Sports and recreation will play an increasingly important role in an industrialising economy. Sports enhance the physical and psychological fitness of the individual, and provide recreational relief. It is through sports that diverse ethnic, professional and other interest groups come together in competition, governed by the same rules and regulations. This helps promote understanding, respect for each other and working towards a common purpose.

6.10.16 It is expected that industrialization will lead to higher productivity and incomes, which should translate into shorter working hours and consequently increased leisure time. Sports and recreation activities will provide alternative ways to spend this free time in a socially acceptable manner and reduce time spent imbibing intoxicants or engaging in crime and other anti social activities. The physical and psychological stress that comes with affluence will find an outlet through recreation and sports will contribute to a healthy and productive labour force for industry.

6.10.17 Sports itself constitutes an industry. Construction of sports facilities and the manufacture of sports goods and equipment have substantial growth potential. Sports also provides employment for players, coaches, officials and administrators.

6.10.18 During the Plan period, the Ministry of Culture and Social Services, in conjunction with the sports organisations, will direct efforts to:

- Organizing training courses for sports officers to improve their output:

- Organizing relevant courses and seminars for the local communities on sports-related issues to enable talent to develop right from the grassroots;

- Developing and utilizing sports facilities to the maximum;

- Producing a policy and enabling legislation to cover all parties in sports and to map out a positive direction for sports; and

- Identifying and developing sources of funding alternative to the exchequer.

CHAPTER 7

RESEARCH AND DEVELOPMENT

7.0 INTRODUCTION

7.0.1 Research and Development (R&D) plays a key role in industrialization by facilitating the identification, characterization and development of material bases, new products, and new processes for industrial activities. Its application in generating improved technologies will influence effective utilization of local resources. This suggests that R&D efforts should be more responsive to demand.

7.0.2 The vision to transform Kenya into an NIC by the year 2020, as stated in Sessional Paper No. 2 of 1996, calls for a critical re-examination of the country's R&D policies and strategies. As outlined in Chapters 1 and 2, the economic future of the country will be assured by making manufacturing industries competitive in liberalised and global markets. Whilst maintaining the tempo in agricultural R&D, more resources, in terms of finances and manpower, will be allocated to industrial R&D. In addition, both the public and private sectors will assume and take up complementary roles to make R&D yield the desired fruits.

7.1 HISTORICAL BACKGROUND

7.1.1 Research and development in Kenya, particularly industrial R&D, has historically been driven by the public sector in response to external and internal influences. R&D in the industrial sector was a consequence of the import substitution strategy that began with the onset of the second world war. On the other hand, R&D in agriculture focused on addressing the inadequacy of foreign breeds of animals and strains of plants in the local environment. The private sector has traditionally focused its technology acquisition on the purchase of embodied technologies through patents and licenses and hence has carried out little domestic R&D. Most of Kenya's research is carried out in Government institutions.

7.1.2 The National Council for Science and Technology (NCST) was established in 1977, under the Science and Technology Act, to advise the Government on all aspects of science and technology. The mission of the NCST is to help Government to integrate scientific research into the National Development process. The Government has also over the years established several research institutions to work in mandated areas. These include the Kenya Agricultural Research Institute (KARI); the Kenya Veterinary Vaccine Production Institute (KEVEV API); the Kenya Forestry Research Institute (KEFRI); the Kenya Trypanosomiasis Research Institute (KETRI); the Kenya Medical Research Institute (KEMRI); the Kenya Marine and Fisheries Research Institute (KEMFRI), and the Kenya Industrial Research and Development Institute (KIRDI). There are additional research institutions dealing with more specialised areas. Despite these comprehensive efforts to establish R&D institutions, industrial R&D capacities and capabilities are still deficient forcing continued reliance on foreign industrial technologies.

7.2 CURRENT STATUS OF R&D IN KENYA

(a) Institutional set-up

7.2.1 The NCST is the apex R&D body under the MRTTT. It has a wide mandate covering the determination of the priorities for science and technology in Kenya; advising on national science policy, on scientific and technological requirements and generally on all scientific activities; ensuring coordination and cooperation among R&D institutions and advising Government on their operational and organisational arrangements; promoting public confidence in R&D endeavours; and ensuring the application of results of scientific endeavour. In carrying out its mandate, the NCST has been hampered by manpower and financial constraints. Coordination is also poor since R&D institutions often work in isolation and there is a lack of a comprehensive management system. Finally, the NCST has been unable to remedy its excessive focus on research at the expense of development activities.

7.2.2 The Kenya Industrial Property Office (KIPO) deals with the registration of patents and licences. Given the dominant role of foreign patents and licenses; KIPO plays a particularly important part in monitoring the role of foreign technologies in domestic productive activities.

7.2.3 The Kenya Bureau of Standards (KEBS) was established in 1974 for the purpose of promoting standardisation and commerce in the country. It formulates standards that meet the demands of industry and are suitable for local conditions while adhering to internationally acceptable specifications. It also supports the use of local raw materials. It's activities have a bearing on technology development through improving the quality of goods and services, promoting scientific, legal and industrial metrology, and verifying, calibrating and controlling the use of standardised marks.

(b) Funding of R&D in Kenya

7.2.4 R&D funding is overwhelmingly public. In 1988/89, 91 per cent of total R&D expenditure was funded by the Government through its various research institutions. This accounted for 0.6 per cent of total GDP. By 1991/92 this figure had risen to 0.75 per cent of GDP, with the Government share staying at 90 per cent. In addition, public research expenditure is heavily biased against industrial research. Looking at the budgeted expenditures of the MRTTT for the fiscal year 1996/97, only 6 per cent of recurrent research expenditure is budgeted for industrial research while agricultural research, medical research, forestry research and marine and fisheries research are allocated 45 per cent, 24 per cent, 14 per cent and 11 per cent respectively. With respect to development research votes, the relative distribution is 4 per cent for industrial research, 82 per cent for agricultural research, 3 per cent for medical research, 1 per cent for forestry research and 10 per cent for fisheries research. Hence, industrial research is grossly under funded when one considers the sectoral contribution of industry to overall GDP.

(c) Research and development achievements

7.2.5 The bulk of tangible achievements in the R&D field has been in agriculture and food production. In agriculture, crop varieties have been developed and adapted for certain ecological zones with a major achievement being the production of hybrid and composite maize varieties, which doubled hectare yields during the 1960s. Other achievements in agriculture include the development of rust resistant wheat, bean strains that are resistant to the bean common mosaic virus, a new technique for the propagation of disease free planting of pyrethrum, and improved coffee strains (RUIRU 11) highly resistant to the coffee berry disease. In the livestock sector, breakthroughs have been made in the control of several killer diseases including the development of vaccines for rinderpest, foot and mouth disease and the contagious bovine pleura pneumonia.

7.2.6 Achievements in the industrial sector have been more limited, largely due to the focus on import substitution and the limited research funds directed to industrial needs. In the recent past, the Government has set up at KIRDI a leather testing facility to assist the local leather industry and an Engineering Development and Service Centre (EDSC) capable of carrying out design and production of engineering tools, jigs and fixtures.

(d) Shortcomings

7.2.7 Kenya's industrial enterprises are characterized by obsolete technologies and inefficient machinery, often over 20 years old. Information on available sources of technology is poor; indeed, some firms have continued royalty payments long after patent protection has expired. Moreover, domestic engineers have had little success in adapting imported technologies to the domestic environment. There is little evidence of technology deepening or adapting foreign technologies to produce improved or new products.

7.2.8 Kenya today lacks well developed capabilities to provide advice and information to technology users, has inadequate capacity to screen foreign technologies and is unable to formulate adequate technology-related policies or plans. There will be need for significantly increased skills at the enterprise level and in Government institutions to address these shortcomings.

7.3 ISSUES IN RESEARCH AND DEVELOPMENT

7.3.1 The technology policy issues relevant to Kenya's industrialization drive that need to be addressed include:

- The need for improved technological capacities and capabilities.
- Role and focus of Government interventions.
- Weaknesses in current operational arrangements in public R&D institutions.
- The role of foreign technology and Foreign Direct Investment (FDI) in complementing existing technological resources.
- R&D support mechanisms, such as information, marketing, commercialisation, and international standards and arrangements.
- Technology culture.

7.3.2 Of all the weaknesses in the support mechanisms, the information front has been the most costly. Information channels play an essential role between researchers and innovators, on the one hand, and users and entrepreneurs, on the other. Good information bases are required to assist in technology adaptation and adoption, negotiation and acquisition, and technology monitoring and forecasting. This requires well defined, properly organised and accessible data bases. In contrast, the Kenya Scientific Information and Documentation Centre (KENSI DOC), which was set up by the NCST to provide scientific information referral services and promote the development of scientific information resource centres, has been unable to perform its role adequately, mainly due to manpower and funding constraints.

(a) Technology Policy Issues

7.3.3 Kenya's industrial structure is characterized by an emphasis on low technology products, where technological knowledge is largely embodied in simple equipment, limited skill requirements, and relatively self contained operations. Despite its low technology emphasis, a large part of Kenya's industry is operating well within its available technological boundaries, although its technologies are largely outdated. During the first stage of its industrialisation drive, Kenya will be focusing on the low technology, labour intensive goods and services. Thus, the first requirement of technology policy is to come up with strategies to improve practices in the industries identified for initial export focus while setting up a base from which technological competence can be achieved in medium technology industries in the longer term. Thereafter, technological focus will be on the development of high technology industries These are technologies where knowledge is embodied in patents, trademarks, complex equipment; where the range of required skills is wide and complex, and where linkages with other enterprises play a major role.

7.3.4 Technology policy must also clarify the relative roles in research and development of the public and private sectors and of foreign and domestic entrepreneurs. Kenya has traditionally focused on funding R&D by supporting the Research Institutes through the exchequer; with little participation by the private sector and other stakeholders. With the more constrained fiscal environment in which Kenya will be operating during the Plan period, it will be opportune for policy to focus on using off-the-shelf technologies to upgrade Kenya's existing technological base, and increasing private sector engagement in R&D, whether directly or indirectly. The Government will, for its part, provide an enabling environment for private sector R&D, accompanied by fiscal incentives to promote home grown technologies.

7.3.5 Finally and crucially, Kenya's policies must focus on raising technological learning capacities. Currently the available incentives are inadequate to cover the costs, risks and information gaps that characterise the technological learning process. The essential process of technological deepening is impossible where capacities and capabilities are inadequate to absorb even currently available technologies.

(b) Technological capabilities and capacities

7.3.6 Effective capacity building in R&D requires a policy and institutional framework that is effectively integrated into the economy and society, focusing on the identification of clear development priorities and integrating science and technology into these priorities; the setting up of educational and research institutions to boost capabilities, and the provision of financial and institutional support to enable implementation. Kenya's capacity building has been inadequate on all those fronts.

7.3.7 Kenya's inadequate technological absorptive capacity has led to poor exploitation of even the currently available technologies. In particular, weaknesses in Kenya's Consulting Engineering and Design Services (CEDS) have led to a proliferation of joint ventures whereby the foreign partner provides the technical and managerial components; a large number of packaged turn-key projects limiting the deployment of local technical and management manpower; and the use of foreign technical and management teams. These practices have often led to the transfer of inappropriate technologies.

7.3.8 In addition, the development of local CEDS has been hampered by tied aid conditions that have affected financing, consulting engineering and design, and installation and management. Lack of domestic financing for CEDS forces them to be dependent on foreign partners whereas lack of domestic long term investment capital and the risk averse nature of local financial institutions hampers the emergence of local CEDS by denying them a chance to develop their skills.

(c) Focus of Government Interventions

7.3.9 Though the focus is now to provide incentives for private R&D and related technological efforts, there are still sectors where direct Government intervention will be needed. The role of the public research sector will be to provide the necessary supportive interventions that will facilitate the entry of the private sector into R&D, especially for more complex and demanding technologies. The public sector will also carry out research where the resource requirements are too large to be undertaken by an individual enterprise, where the time span is long and the outcome uncertain, and where the benefits cannot be reserved for the innovator, and in matters of strategic concern, such as food or national security.

(d) Weaknesses in Current R&D Operational Practices

7.3.10 Because Kenya's R&D efforts are dominated by public bodies, the constraints faced by these bodies largely encompass the constraints facing the sector as a whole. Kenya's R&D establishment is faced by a range of operational constraints, ranging from inadequate quantity and quality of research personnel, mainly due to the relatively poor remuneration and inadequate incentives and rewards; inadequate management and personnel practices that have led to inappropriate ratios of support to scientific staff, to capital intensive research practices and poor maintenance of research equipment; inadequate incentives for local production of consumables for R&D equipment and over emphasis on donor funding. This approach has led to a research sector that is largely divorced from industrial production as characterized by the limited number of industrial companies using patented information from the local R&D institutions.

(e) Role of Foreign Technology

7.3.11 The bulk of the patents and licenses in use in Kenya's industrial sector are foreign; even domestically registered patents are more often than not produced by subsidiaries of multinationals. Thus, the role of foreign technologies continues to be crucial. Most of the technologies the country requires for its low technology industries are available off the shelf and could technically be availed for *free* in the form of foreign direct investment or joint ventures. However, a reputable, trusted legal and institutional environment is an absolute pre-requisite for encouraging foreign technology owners to release their technologies, as well as assurances on security. This issue is also linked to that of building absorptive capacities in the absence of which no technological upgrading will take place.

7.3.12 A country's ability to benefit from foreign technology depends on its general economic and policy framework, the level of indigenous technological capabilities and the availability of qualified human resources. For Kenya to benefit adequately, it will need well co-ordinated actions to develop these abilities as well as focus Foreign Direct Investment (FDI) on providing investment packages consisting of capital, technology and access to international markets.

(f) Informal Sector Technology

7.3.13 The informal sector has been growing in importance in Kenya both as a source of employment as well as of innovative technologies, such as the fuel efficient stove. Technological illiteracy, poor tools, limited market awareness and lack of adequate institutional support have constrained the sector's ability to upgrade its existing technological base to boost their productivity and incomes or to protect themselves from copying. These weaknesses have undermined the development of indigenous, labour intensive local-resource-using technologies.

(g) Small and Medium Enterprise Support

7.3.14 Small and Medium Enterprises (SMEs) are influenced by a number of constraints as they try to boost their technological capabilities. Firstly, a lack of business management and appropriate forms of organisation have limited most enterprises to the skills and talents of the owners. Secondly, there is a lack of technical expertise within the enterprise due to the limited size of operations. These firms also lack adequate information on demand for products and this undermines their ability to plan. Lack of access to funding also limits resources for R&D in the enterprise while lack of formal links between academia and business limits the scope for universities to assist the sector to upgrade their technologies.

7.3.15 Since the largest number of enterprises in Kenya are small and medium enterprises, there will be need to provide appropriate measures to promote technological upgrading in the SME sector.

(h) R&D Support Mechanisms

7.3.16 The major R&D support mechanisms consist of information systems, marketing and commercialisation processes, negotiation and acquisition support, monitoring and forecasting systems and the interrelated systems that facilitate technological efforts and the product of those efforts. Kenya's R&D support infrastructure is inadequate as evidenced by the poor transition from laboratory to industrial use. Since R&D is mostly done in public institutions and thereby publicly funded, there is little incentive to involve the end users in technology generation. This later causes problems in marketing. Though the various Government institutions (NCST, KIPO, MRTTT, MCI etc) have set up information and documentation centres, these have proved inadequate in alerting users to the availability of technologies, patent expiry dates, required adaptations and so on. Government institutions, being poorly staffed, are unable to provide negotiation and acquisition skills and advice, or adequately to monitor end user developments in R&D. There is thus a great need to build up the support mechanisms with special focus on the training of relevant cadres to carry out research, use it, and monitor and evaluate its consequences.

(i) Boosting Linkages Between R&D Institutions and the Private Sector

7.3.17 One of the major problems afflicting the R&D sector in Kenya is the information and capacity asymetries surrounding the demand and supply of R&D. While enterprises may know what kinds of technology they need to be more profitable and efficient, they lack the research facilities and manpower to come up with better products and technological answers. On the other hand, the Public Research Institutions (PRI) (mainly KIRDI) have the resources, organisation and capabilities to do the research, but lack adequate funding and knowledge of market opportunities. There is thus an opportunity to complement each other in a mutually beneficial *research contract* whereby the private sector provides the funding and ideas while the R&D institutions carry out the necessary research under the principle that the provider of funds becomes the proprietor of the results. Some action has already begun on this front involving KIRDI's laboratories and facilities, but a lot more needs to be done. In fact PRIs should sell their research findings and offer consultancy services at prevailing market rates to supplement their operations and cover some of their maintenance costs.

(j) Technology Culture

7.3.18 For continuous technological upgrading to take place, a culture that respects advances in science and technology, one that is willing to accept, promote and reward innovators, is needed. Kenyan cultures do not appreciate innovation and in fact focus on long standing conformity. As a result, there is a need for a new top-down cultural orientation focused on educating the younger generation to adopt appropriate standards for the treatment of innovations and innovators.

7.4 MAIN POLICY OBJECTIVES FOR R&D

7.4.1 The major policy objectives for the 8th Plan period are:

- Increasing the share of the private sector in R&D funding. This will require comprehensive action to boost the relative attractiveness of domestic R&D vis-a-vis importation of technology.

- Refocusing PRIs' expenditures on those areas in which the private sector will be unable to invest but which are important for building up long term technological capabilities. These are usually R&D activities that have long gestation periods, that have uncertain outcomes, whose benefits are unlikely to be monopolised by the innovator and where information gaps are significant.

- Improving domestic technological capabilities in order to boost the absorptive capacity of the economy. This will focus on achieving efficient practices at the low technology end of industry and setting the base for long term competence in medium technologies;.

- Developing a clear-out policy for technology imports that allows unrestricted access to foreign technologies while simultaneously laying the basis for using technology imports to enhance domestic technological efforts and competencies.

- Introducing schemes to improve quality in the Small and Medium Enterprise (SME) segments of industry to boost their efficiency and export potential.

- Putting in place the essential technological infrastructure by strengthening or establishing industry associations (such as KAM), training centres (eg KITI, KIBT) standards institutes (KEBS), technology support bodies (NCST, KNAS), technology import/diffusion organisations, technical consultants and extension services (CEDS) and relevant legal bodies.

- Designing and implementing programmes aimed at improving operational procedures with a view to reducing the operational problems faced by the R&D bodies.

- Redressing the imbalance in public funding in R&D by raising the share of industrial R&D expenditure to at least 14 per cent of the total R&D funding and preferably 20 per cent.

- Developing specific strategies for the development and upgrading of technological capacities in the industries identified in Sessional Paper No. 2 of 1996 for promotion in Kenya's first phase of industrialisation.

- Developing specific linkages between PRIs, private industrial concerns and support institutions to enable rapid commercialisation of innovations as well as a market based prioritization of research projects.

- Improving the co-ordination and quality of R&D related information both at R&D institution level and at enterprise level.

- Initiating a process for the evolution of a technology culture focusing on interventions at educational level to imbue appropriate attitudes and characteristics.

- Developing specific programs and projects to facilitate the technological upgrading of the Jua Kali sector.

7.5 POLICY MEASURES

7.5.1 Research and development will play a decisive role in Kenya's industrialisation. During the 8th Plan period, the Government's focus will be on actions that improve the R&D environment, the institutional set up and the technology infrastructure, all of which will play leading roles in the industrialisation process and the new private sector involvement in R&D.

(a) Private Sector Participation in R&D

7.5.2 Kenya's overall investment in R&D is well below the one to two per cent of GDP that is needed for a country at Kenya's stage of development. Fiscal constraints and the difficulty in identifying market trends and technological winners imply that efforts must be made to increase private sector R&D expenditure to at least 0.6 to 1.0 per cent of GDP. To encourage the private sector and Non Governmental Organisations (NGOs) to invest in R&D, the following policies will be carried out:

- The Ministry of Finance (MOF) will continue its policy of rationalising the tariff structure and reducing tariff levels. This will increase the incentive for industrial enterprises to invest in upgrading their technologies by adopting market driven technology search and quality improvement.

- To promote private sector spending on domestic R&D, such expenditure will be made tax deductible by the 1997/98 budget while industrial enterprises will be allowed to establish tax free research funds up to a specified share of their annual sales. In addition, tariffs will be reviewed during the 1997/98 budget to ensure zero rating on importation of R&D equipment and consumables. The legal process for registering patents and licenses, and preventing piracy, is already in place. Direct budgetary allocations for implementing these laws will be increased, starting with the 1997/98 budget, in order to speed up licensing and patenting processes as well as to strengthen anti-piracy activities.

- To promote R&D activities among small and medium enterprises KIRDI will be restructured and strengthened by 1998, and the possibility of establishing regional industrial research centres will be investigated.

- To further promote R&D activities in the private sector, special exemptions will be given with respect to the issuance of work permits for foreign R&D personnel. Specifically, by 1998 the Immigration Department (IMD) in collaboration with MCI and MRTTT will come up with modalities for ensuring that industries that set up R&D institutions have a rapid one stop procedure for the application and renewal of work permits for their R&D staff.

- To facilitate the private sector/public sector *research contract arrangement*, the Government will set aside a portion of the National Industrial Research Funds (NIRF) for co-financing. Proposals for this arrangement will be included in the 1997/98 budget.

- The MRTTT will institutionalise an annual review of private R&D efforts to identify needed corrective measures.

(b) Refocusing of Public Sector Expenditures

7.5.3 As mentioned in paragraph 7.2.2, the overwhelming bulk of R&D funding is from the public sector, channelled through PRIs, which have, however, made limited inroads in addressing the technological problems of Kenyan industry. The basic problems are firstly, the inadequate funding of public industrial R&D expenditure and secondly, the Institutions' civil service approach that has led to the overwhelming bulk of resources going to personnel emoluments. To address these twin problems:-

- The MRTTT will, by the 1997/98 fiscal year, come up with concrete budgetary proposals to expand industrial R&D

expenditures from the current 3.6 per cent of research expenditures to at least 14 per cent by 2001 and possibly 20 per cent.

- Rather than simply increasing disbursements to PRIs, the increased funding will be kept in a National Industrial Research Fund to which both public and private industrial research institutions can apply for funding. This will encourage competition for public funds as well as enable the MRTTT to refocus public expenditure to those essential technological efforts where scale economics, riskiness of endeavour, uncertainties of outcomes and difficulty in appropriating the returns may discourage private sector initiative. By separating the financing and employment role of MRTTT, the establishment of this fund will also enable the MRTTT to adopt an arms length approach to the financing of industrial R&D. MOF and MRTTT will, by 1998, propose modalities which will be used to raise funds for the NIRF.

(c) Role of Technology Imports

7.5.4 Since imported technology will provide the bulk of industrial technology for the foreseeable future, there is a clear need to develop policies and programmes that will enhance the use of foreign technologies to improve domestic capabilities and hasten the attainment of more efficient practices. During the Plan period, the following actions will be taken:

- MRTTT will set up a committee encompassing major Government and private sector players, including NGOs, in industrial technology transfer with a view to establishing a mechanism for rapid and widespread diffusion of technology. The proposals of this committee are expected by mid 1998.

- KIPO will be strengthened and its mandate widened to include formulation of plans for targeting foreign technologies for rapid adaptation, assimilation and upgrading in conjunction with NCST. Modalities for this transformation will be worked out by the MRTTT in 1997.

- The MRTTT will promote the training of specialists who are able to carry out technology bargaining for the acquisition of international technologies with a view to assisting the private sector get the best technological deals possible.

- The possibilities of establishing a Technology Management Centre (TMC) will be investigated by MCI, in collaboration with MRTTT.

(d) Improving Domestic Technological Capabilities

7.5.5 Kenya's capacity to invest in and promote appropriate technologies and linkages is inadequate to the needs of modern industry. During the Plan period, emphasis will be placed on building up Kenya's investment capabilities to reduce delays and costs in the completion of industrial projects. To attain this, the following actions will be implemented:-

- A core of professionals with skills in feasibility studies, architectural and engineering analyses, and product and process development and design will be withdrawn from the retrenching parastatals sector to be set up as an independent autonomous engineering and consulting group under the Ministry of Commerce and Industry (MCI). A systematic process will be put in place for committing this engineering core group to the analysis of all investments that are in some way reliant on Government financial or technical support. The MCI will, by 1998, come up with a Plan of action for setting up this institution, as well as the modalities for getting it involved in investment processes;

- The shortcomings in project management, process engineering, start-up testing and commissioning capabilities will be identified by a committee to be formed consisting of representatives from MCI, MRTTT, MPWH, Kenya Association of Manufacturers (KAM), Federation of Kenya

Employers (FKE) and the Institution of Engineers' of Kenya (IEK). This study will form the basis of a programme proposal, to be submitted to donors by mid 1998, on how to tackle those shortcomings in the short run and begin the process of eliminating them altogether in the long run.

(e) Quality Improvements

7.5.6 KEBS will publicise the extensive adoption of the ISO 9000 series at enterprise level in order for the country to take full advantage of existing global trade arrangements.

7.5.7 MCI and KEBS, will come up with a programme to assist SMEs and export-oriented industries in dealing with quality related concerns encompassing finance, publicity, technical assistance requirements, training requirements and the provision of relevant equipment. The programme will be ready for implementation by 1998.

(f) Strengthening Technology Infrastructure

7.5.8 During the Plan period the MCI, in collaboration with MRTTT, will formulate clear Plans, specifying targets, time-frames and relevant inputs, to strengthen institutions and institutional frameworks relevant to industry associations, training centres, standards institutions, technology support bodies, and relevant legal bodies to ensure that their activities provide a solid backbone to domestic industrial and inventive activity.

(g) Promotion of Technology Culture

7.5.9 In order to initiate the process of long term cultural change, the focus will be on inculcating the young with the appropriate technological cultural orientation. Specifically:-

- A review of the 8-4-4 system ot education curriculum will be carried out by the Ministry of Education (MEd) to encourage technical training among students. Technical training up to university level will also be emphasised in the education master Plan which will be published by 1998.

- The MRTTT will carry out a survey to identify the aspects of science and technology that would enhance the development of technology culture in business and industry and come up with promotional measures to emphasise these aspects by 1998;

- The NCST and MRTTT will work in conjunction with the MCI to carry out a study by 1998 on how to inculcate the science and technology culture among Kenyans.

- OVP&MPND, MCI, MRTTT, will liaise with private sector organisations and NGOs in order to co-opt them to participate in inculcating the youth with the appropriate technology culture.

(h) Jua Kali Sector Technology

7.5.10 With the increased role to be played by the Jua-Kali sector during the Plan period in the generation of employment, it is important that specialised programmes be put in place to upgrade informal sector technologies. This is an area where donors and NGOs can play a crucial role particularly in the development of intermediate technologies. There are several programmes for strengthening the sector's technological capabilities, such as:

- Under the Programme Support Implementation Arrangement (PSIA) of 1996 on capacity building in the sector, institutions promoting marketing and technology development will be strengthened to enable them to conduct market surveys and provide improved databases for marketing technology relevant to both the small scale and jua kali enterprises. This programme will be initiated before the start of the 8th Plan.

- Given that the implementation of the ISO - 9000 quality standards is likely to undermine the promotion of Jua Kali exports, the MCI and IPC will continue with their tasks, enumerated in Sessional Paper No 2 of 1992 on *Small Scale Enterprise and Jua Kali Development in Kenya,* to provide specialised technical support and training to SSE exporters.

- The OVP & MPND will co-ordinate actions by the MCI and MRTTT to analyse and provide means of upgrading the technological base of the Jua Kali sector specifically focusing on the provision of information, training skills and infrastructure and preferably channelling this assistance through the organisations formed by the Jua Kali operators.

(i) Operational Problems in R&D Institutions

7.5.11 Inadequate operational practices in R&D institutions are due to the civil service oriented approach to their management that inhibits the reward of initiatives, adequate funding for O&M equipment and over-employment of support staff at the expense of professional research staff. As part of the civil service reform and the reform of public institutions, the MRTTT will institutionalise reforms to enable the public research institutions to function and operate more in line with the private sector and multilateral research institutions within the country. Finally, the NCST Act will be revised to give the Council more autonomy to allow it to effectively carry out its co-ordination and advisory roles. In addition KIPO's status will be reviewed with a view to making it autonomous.

CHAPTER 8

INDUSTRIALIZATION SUPPORT FRAME

8.0 INTRODUCTION

8.0.1 Until recently, industrial support services in t been mainly provided by the public sector. However, of a more liberalised economy, the provision of such se to the private sector. There has been an ideological shif to the 'market'. At the same time, there is a shift in management" with emphasis on nurturing closer marke service provisions. In providing the regulatory and e ment, the state is gradually concentrating on those t private sector will likely pass up because of their non-

8.0.2 Industrial development by the private accelerated, however, by incentives provided by the Go active partner in the industrialisation process, the Gove provide support services where necessary. These security to investors and their property; sound, predictable monetary and fiscal policies; provision and infrastructural services; and expanding Kenya's marke within the region and overseas. Above all, the G continue to nurture the development of a liberalised ec prices and the allocation of resources, in both producti tion, are determined freely by market forces of supply

8.0.3 Overall, most of the planned economic grow will come from the activities and innovations of the adopting efficient production techniques to improve th of Kenyan products internationally. Within the dom private sector will be expected to adapt and upgrade techniques to meet changing consumer tastes, and to p the various new opportunities that will emerge as div economy continues.

8.0.4 While the bulk of the industrialization sup have already been addressed in the previous Chapt critical and specialised activities, which include market development, promotion of exports and investment, promotion of small and medium sized industries and the tourism industry, information availability and management, environmental conservation, institutional development, the role of the provincial, district and local administrations, and social and political environment, will be the focus of this Chapter.

8.1 MARKET DEVELOPMENT

8.1.1 Marketing support is perhaps the weakest link in Kenya's industrial system and needs to be strengthened in order for industrialization to proceed as desired. Appropriate policies have been put in place, but the enabling support framework to facilitate private sector activities still remains underdeveloped. Policy measures that will be implemented during the Plan period in order to bridge this gap incorporate the following initiatives.

(a) Institutional support in developing competitive markets

8.1.2 Relevant Government Ministries and Departments will provide timely and reliable market information by improving their coverage of products and services and of geographic areas. The Ministry of Finance (MOF), in collaboration with the Attorney General's Chambers, will enforce the provisions of the Restrictive Practices and Monopolies Commission Act of 1989 to strengthen fair trading, facilitate economic competition, and prohibit unfair market conduct.

(b) Development of export markets

8.1.3 Kenya is well placed to take advantage of markets in the Middle East, Eastern and Southern Africa, the Far East, America and Europe. However, both the public and private sectors have failed to carry out effective marketing in these regions. The development of these markets will be supported through the country's embassies and missions abroad. The Ministries of Foreign Affairs and International Cooperation (MFAIC), Commerce and Industry (MCI) and Agriculture Livestock Development and Marketing (MALDM) will be required to take a proactive and leading role in marketing. The private sector will be supported in its efforts to gain access to new foreign markets.

(c) Supporting the development of specialised financial and commodity markets

8.1.4 Specialised markets, such as the Nairobi Stock Exchange (NSE), will be supported by the Government to foster industrialisation. New specialised markets such as Options and Futures markets, secondary markets in Treasury Bills and commodity exchanges will continue to be developed by the Government in conjunction with the private sector. The Government will provide an enabling and regulatory role in the development of these markets. Lead ministries in will be MOF, MALDM and Office of the Vice President and Ministry of Planning and National Development (OVP&MPND).

(d) Market Research

8.1.5 Research plays an important role in market development. The MCI through its trade development officers and commercial attachés, and the EPC through its Trade Information Network (TINET) will support and encourage market research in order to achieve growth in domestic and external markets. Focus will be on the expansion of restricted domestic markets and gaining access to external markets. The MCI, in partnership with the private sector, will collaborate in market research on a continuous basis.

8.2 INVESTMENT AND EXPORT PROMOTION

8.2.1 It is recognized that the country does not have adequate domestic resources to attain the high level of investment required to bring about the planned industrial transformation. Therefore, the country will during the Plan period, actively seek private portfolio and Foreign Direct Investment (FDI) to supplement local resources.

8.2.2 Previous tax incentives to local and foreign investors in the form of tax holidays, accelerated depreciation, investment allowance, low duties on intermediate capital goods and gradual reduction of corporate tax rates were meant to increase foreign investment. However, dwindling domestic markets, increases in cost of capital and production and the existence of widespread controls and bureaucratic red tape minimized the effectiveness of these incentives in attracting industrial investment.

During the Plan period, the investment approvals procedures and the incentive package will be streamlined through the enactment of the Investment Code. Recognizing the global trend, where even the most advanced countries are competing to attract foreign investments, more competitive incentive packages to attract foreign investments will be considered. In addition, the Government will strive to improve the business environment by reducing business burdens created by unclear rules and procedures. Kenya, through the Ministry of Foreign Affairs and International Cooperation, will continue to build up its international image as the most suitable country with which to do business in the region.

8.2.3 Furthermore, the MOF will harmonize incentives given under Manufacturing Under Bond (MUB) and Export Processing Zones (EPZ) schemes during the Plan period to encourage investors even further.

8.2.4 In order to attract significant amounts of investment resources it is imperative that several Kenyan organisations be upgraded to competitive levels including the Investment Promotion Centre (IPC), the Export Promotion Council (EPC) and the Export Processing Zones Authority (EPZA). To this end, trade and investment promotion offices will be opened in carefully selected key countries/or regions worldwide during the Plan period. The offices will be manned by highly qualified, experienced, result-oriented personnel who will be attracted from the private or public sector, by competitive remuneration packages.

.2.5 In order to ensure adequate financial provision to support the increased investment promotional activities required for rapid industrialization, MOF, MCI and AG's Chambers will work out the modalities for establishing an Industrial Development Levy (IDL) by mid 1998. The IDL will finance development activities of the National Industrial Development Council (NIDC), IPC, EPC and EPZA.

) National Industrial Development Council

.6 Experience from NICs has shown that success in the development of an economy depends on both the policies a country adopts and the institutional framework put in place to implement these policies. Cognisance is made of the fact that for enterprises to achieve competitiveness and efficiency in the formulation of business strategic Plans, it is necessary to have avenues for dialogue and action between the public and private sectors. This is particularly so now that the country has adopted a policy of export oriented private sector led industrialisation. The industrial transformation envisaged will therefore not come about from lone efforts of either the Government or the private sector, but by concerted efforts from both. It calls for genuine collaboration of the public and private sectors as active partners in the development process.

8.2.7 For this reason, the following measures ill be implemented during the Plan period:

- NIDC will be established to act as a forum for dialogue between the public and private sectors to facilitate the design and formulation of policies designed to bring about the desired rapid industrialisation. The membership to the council will be drawn from private sector Representative Associations and relevant public sector institutions. The NIDC will be staffed with qualified, experienced and result oriented professionals who will be appointed on merit from the private and public sectors.

- An Industrial Development Act will be enacted to give the NIDC legal status and mandate.

(b) Investment Promotion Centre

8.2.8 The Investment Promotion Centre (IPC) will be strengthened during the Plan period to make it more effective in advising potential investors on issues of technology transfer and in promoting sub-contracting activities between foreign firms/or foreign investors and local enterprises.

8.2.9 In order to respond more effectively and efficiently to the growing needs of industrialization, it is proposed that during the Plan period, the IPC be upgraded, restructured and strengthened to conform to international standards and to enable it to process approvals for new investment more efficiently. This restructuring is expected to shorten the approval time for all forms of investment to within one to five days, as opposed to the current average of four weeks.

(c) The Export Processing Zone Authority (EPZA)

8.2.10 An important objective of the EPZ programme is job creation and the transfer of skills and technology to the economy. During its four years of operation, the EPZ programme has made some progress, for example:

- Thirteen EPZs have been gazetted in Nairobi, Mombasa and Nakuru. Twelve are privately promoted while one, Athi River EPZ, was developed by the Government with substantial financing from the World Bank. Feasibility studies for a second public EPZ in Mombasa have been completed and Plans are under way to implement the project during the Plan period.

- Fifty four manufacturing projects have been approved. Of these, twenty are already in operation representing a capital investment of Kshs.4.0 billion in machinery and equipment generating 3,000 jobs. Exports from the zones realized Kshs.1.3 billion in 1995, up from Kshs.1.0 billion in 1994.

8.2.11 The small number of EPZ companies in operation is partly a result of a shortage of ready built industrial space during much of 1992-94. Lack of industrial space was a serious impediment as most investors prefer to rent rather than construct their own buildings during the initial years of operation. Provision of ready buildings and on-site infrastructure is an essential prerequisite for EPZ enterprises. While the private sector has been encouraged to provide such buildings, development has been sluggish mainly due to the high interest rates prevailing in the market. During the Plan period, the EPZA will complete one EPZ at Changamwe and continue to develop a second EPZ at Kokotoni, both located in the Coast province.

(d) Export Promotion Council (EPC)

8.2.12 In a developing country like Kenya, export promotion must be a Government-led activity. The EPC will take the lead in organising export promotion activities in foreign markets by organizing and participating in trade fairs and exhibitions, sponsoring contact promotion programmes and sales missions, and carrying out market opportunity surveys. It is too costly to expect small and medium-sized enterprises to mount sales promotion campaigns in foreign markets by themselves. One of the constraints to export promotion has been the, shortage of public funds. Often, no funds have been allocated for organising sales missions, contact promotion programmes, buying trade directories, subscribing to trade and technical journals, among others. It is anticipated that financial constraints will continue to limit the organisation of trade promotion activities abroad for some time to come.

8.2.13 In order to meet the expenses of export promotion activities by the Council, MCI, MOF and EPC will investigate, during the first year of the Plan period, the possibility of establishing a Market Development Fund, financed, in part, by contributions from the private sector The creation of the fund will reduce over-reliance of EPC on the exchequer for funds to finance its promotional campaigns.

8.2.14 The EPC will establish an export targeting system for both direct and indirect exports during the Plan period. Indicative export targets, reflecting projections by individual firms, will be established. In addition, the EPC will, in consultation with the Kenya Association of Manufacturers (KAM), Kenya National Chamber of Commerce & Industry (KNCC&I), and leading manufacturers and exporters, formulate a *COMESA Plan of Action* for the development of exports in Africa. The *Plan of Action* will make export projections for each country, identify export products and the promotional activities needed in these countries during the next five years. A vigorous export drive will be undertaken within east and southern Africa, and maximum effort will be made to utilize the Preferential Trade Area (PTA) clearing house facility and its preferential rates of duties. Market intelligence will form an integral part of these activities.

PROMOTION OF SMALL AND MEDIUM SCALE ENTERPRISES SECTOR

As articulated in Sessional Paper No. 2 of 1992, the Small and Jua Kali Enterprises (SSJKE) sector plays an important role in reation. In order to enhance the rapid growth of the sector during lan period, the Ministry of Commerce and Industry, Ministry of ice, Local Authorities, OVP&MPND and other relevant ministries collaborate with the private sector, NGOs and community based isations so as to:

develop and review the legal and regulatory environment for informal sector activities;

formulate and develop programmes to improve access to credit and finance;

support women and youth involvement in small/medium scale and informal sector through special programmes;

encourage strong backward linkages with the manufacturing sector; and

review and harmonize licensing procedures for the informal sector enterprises.

In order to ensure effective implementation and mainstrea of gender issues in industrialisation, donor and private sector t will be sought to enhance capacity in National Women sations, including related NGOs, and to re-orient their activities s industrial endeavours. This will enhance implementation of the ng action-oriented initiatives coordinated by the MCSS.

women's groups will be supported in the mobilization of local resources for development purposes, focusing on community based industrial activities in a well coordinated manner.

- more resources will be directed to individual women at grassroot levels who have potential to manage industrial enterprises.

- training programmes for women's groups will be mounted in the areas of entrepreneurship, with emphasis on quality and product diversification.

- redirection of the financial sector towards mainstreaming of gender in their lending policies.

- promotion of gender friendly technologies in the industrial sector, particularly for small and medium scale enterprises.

8.4 PROMOTION OF TOURISM INDUSTRY

8.4.1 A sustained flow of tourists will contribute to industrial development through generation of foreign exchange, creation of income earning opportunities, expansion of markets for industrial goods, induced investments in supporting physical infrastructure and related services, and development of local entrepreneurship. The constraints to growth of the tourism industry include inadequate tourism promotion and marketing effort; inadequate diversification of tourism products and market segments; insufficient and weak institutional and regulatory support framework; attrition of the country's image as a travel destination for foreign and domestic tourists; insufficient data and information on the socio-economic impacts of tourism, and deterioration of the country's tourist infrastructure.

8.4.2 Efforts will be made to improve conservation of natural and cultural resources which are attractions to the tourists; diversification of tourism products and market segments; promotion of the country as a travel destination for foreign and domestic tourists, and the provision of high service standards for tourists.

8.4.3 The strategies that will be used to address the above issues with a view to improving the tourism sector include strengthening the Kenya Tourism Board (KTB) to become fully operational, intensifying efforts towards diversification of tourist products and market segments, ng and encouraging community participation in tourism , and intensifying public relations services to restore the s image as a travel destination. In this regard, the National Master Plan will be implemented fully to establish a sustainable base.

INFORMATION FOR DEVELOPMENT

The goal of national information policy is to ensure access to ed and professional knowledge, to the scientific, technical, l, commercial and economic information and expertise generated he country or elsewhere in the world, as a problem-solving and as a resource for development of all sectors of the .

Information resources and management

The objective of information resources and management is to an effective means of institutionalising systematic flow of and such information in the country. Hence the development of ion centres and other documentary sources, of both domestic ign materials relevant to all sectors of the economy, will be ority during the Plan period. Kenya has a number of libraries mentation centres, most of which exist as isolated information These libraries and stores can be categorized as university, oublic, research centre, Governmental and also archives and In addition, Related Data Base Management Systems), including Geographical Information Systems (GIS) have been d over the last several years by both public and private ns. Networking of existing institutions locally and internavill be effected during Plan period. Among the issues to be d are (i) information resource-sharing principles, modalities, tools, and cost sharing (within sectors and at national inter-evels) and (ii) developing an appropriate model for geographic ectual organisation of the information resources and services, ring comprehensiveness of coverage, operational feasibility, lity, and systems interconnection.

(b) Restructuring of Central Bureau of Statistics (CBS)

8.5.3 Against a background of a changing social, economic, and industrial environment, both locally and internationally, CBS, as the custodian of national data bases, will be restructured, upgraded, adequately staffed and provided with the latest technology to enable it to respond to the emerging data needs of both the private and public sectors on a timely basis .

8.5.4 The Statistics Act (cap. 112) will be amended to facilitate delegation to specialised data users and producers while allowing CBS the flexibility it needs to coordinate and collaborate with various institutions, to introduce innovative ways of resource mobilisation, including user fees and charges for its various publications.

(c) Information for Trade and Industrial Development

8.5.5 An important strategy for increasing trade and industrial activities in the country is providing the right business information to all the interested parties, accurately and on time. Accordingly, the Ministry of Commerce and Industry (MCI) will establish a Trade and Industrial Information Centre (TIIC). This will become functional during the first year of this Plan period. The Centre will network with the District Information and Documentation Centres (DIDCs) through which information will be made accessible to entrepreneurs in the Districts.

8.6 REGIONAL AND INTERNATIONAL CO-OPERATION

8.6.1 The growing globalisation and liberalisation of the world economy has increased the importance of international co-operation in the achievement of rapid and sustainable development. International bodies play an increasingly important role in promoting open, equitable and non-discriminatory multi-lateral trading systems, as well as providing a framework for investment, technology transfer and finance. The outward-oriented development strategy Kenya has adopted means that her prosperity will depend to a greater extent than before on foreign trade and access to foreign investment. Kenya's relations at the global, regional and sub-regional level, as well as its multilateral and bilateral links, will be influenced by this changing environment. It will thus be necessary to make changes at the institutional level, to promote and support regional and sub-regional initiatives, and to strengthen links with multilateral institutions to ensure that the country maximises benefits from positive external changes while minimising the impact of negative trends.

(a) Institutional Developments

8.6.2 With respect to institutional developments, Kenya needs effective participation in multilateral negotiations and programmes. Thus, it is necessary to develop the nation's institutional capacity in this regard. Indeed, there is increased urgency to sharpen the political dimensions in the Government's negotiating strategy given that bilateral and multilateral negotiations are no longer purely technical fora. This will also call for increased emphasis on building strong negotiating skills and improved mapping out of strategies at both national and collective levels. In addition, closer co-ordination between Ministries and Government agencies in the preparation of country position papers will be essential.

8.6.3 Institutional developments will focus on the MFAIC, the MCI and the OVP & MPND. In all these Ministries, training in negotiations will be enhanced, with specific emphasis on the departments dealing with international relations and international economic arrangements. To take account of the growing need for economic diplomacy, the role of the OVP & MPND in economic negotiations will be enhanced while the economic diplomacy sections of MFAIC will be strengthened, both locally and at the embassy level. The MFAIC will also spearhead closer co-ordination between Ministries and Government agencies with a view to ensuring effective participation in multilateral negotiations and programmes, sharpening of political negotiation abilities as well as improving strategies at both national and collective levels.

(b) Bilateral Co-operation

8.6.4 The principle of good neighbourliness and non-interference in the internal affairs of other states is the basis of Kenya's foreign policy. Kenya will continue to maintain and improve bilateral relations with old friends, but with greater emphasis on trade, investment and technology relationships. With respect to bilateral relations, Kenya seeks to cover countries excluded from other existing arrangements. In the Kenyan context, bilateral agreements are dominated by agreements on technical and scientific co-operation, cultural and educational co-operation, and economic and trade co-operation. Bilateral co-operation arrangements tend to be dominated by joint commissions.

8.6.5 During the Plan period, bilateral agreements will continue to be implemented and new ones signed because such agreements are key elements in enhancing sustainable development. Some existing agreements will be reviewed to take into account the evolving economic and technical environment within which Kenya will pursue its objective of faster industrialisation. To ensure that bilateral arrangements are adequate, existing bilateral commissions will be reviewed or re-activated, while new partners will be identified to enable Kenya to overcome the challenges ahead.

(c) Regional Co-operation

8.6.6 Regional co-operation facilitates access to wider markets which, in turn, enable the exploitation of scale economies and attraction of foreign investment. Other potential benefits include co-operation in industrial development through pooling of resources and more efficient provision of support services. Furthermore, Kenya's promotion of regional peace and stability is based on the understanding that industrial development and regional co-operation can only occur in a peaceful setting.

8.6.7 At the regional level, Kenya's economic co-operation arrangements currently revolve around the African region, the Common Market for Eastern and Southern Africa (COMESA), the East Africa Co-operation (EAC) and the Inter Governmental Authority on Development (IGAD). Kenya is also a signatory to the Abuja treaty establishing the Africa Economic Cooperation whose eventual objective is the establishment of an African Economic Community (AEC). COMESA involves the creation of a single market for this sub-region of Africa through the gradual reduction of tariff and non-tariff barriers and concerted programmes to facilitate and promote trade. COMESA has industrial co-operation as one of its major objectives. Under its industrial co-operation programme, COMESA aims, among other things, at co-ordinating programmes and projects with a view to encouraging specialization and complementarity in production processes amongst its member states, thereby ensuring exploitation of economies of scale. The arrangements also aim at promoting industrial research and development as well as training and management, through the establishment of joint industrial support institutions.

8.6.8 Kenya has been participating in the Cross-Border Initiative (CBI) which has been developed in close collaboration with relevant regional integration organizations in the Eastern and Southern African sub-region under the sponsorship of the African Development Bank (ADB), European Union, International Monetary Fund (IMF) and the World Bank. The main objective of the CBI is to assist the countries of the sub-region in speeding up implementation of the various economic co-operation and integration programmes and projects already agreed upon under various integration organizations, through provision of financial and technical assistance.

8.6.9 The country is also a signatory to the Lome Convention which binds the Africa Caribbean and Pacific (ACP) countries on one hand and the European Union (EU) on the other in a contract that aims at enhancing mutual economic growth and development. The ACP countries have benefitted from these arrangements as a group. Kenya has benefited directly under the National and Regional Indicative Programme in terms of financial assistance, as well as from preferential access to the EU market for its exports.

8.6.10 The Government recognises that regional and sub-regional economic co-operation and integration arrangements have great potential in promoting Kenya's industrialisation efforts. The focus of the country's co-operation endeavours will mainly be based on development issues. Strategies will focus on the adoption of common regional positions and building economic and trade relations with emerging regional groupings, such as in South East Asia. Other measures will include:

- Kenya, in collaboration with other African countries, will contribute towards the success of economic co-operation and integration at regional as well as sub-regional levels through the provision of political and financial support to the African Economic Cooperation, COMESA, EAC and IGAD arrangements. In pursuit of this, the OVP&MPND and MFAIC will promote the rationalization of integration efforts within which the different integration organizations will operate as building blocks towards achievement of one large market on the African continent. Additional markets will be explored within the proposed Indian Ocean Rim Association for Regional Cooperation (IOR-ARC).

- Within existing arrangements, Kenya will urge for continued reduction and eventual elimination of tariff and non-tariff barriers to trade among the countries concerned so as to promote external trade and attract more investments into the country. At the same time, the Government will work closely with the private sector to ensure that the domestic manufacturing sector takes advantage of joint industrial support services available under these arrangements.

- Kenya will take advantage of the Cross Border Initiative to intensify benefits from projects and programmes arising from co-operation with her partners in this sub-region.

- The MCI and the OVP&MPND will promote utilisation of facilities and opportunities available under regional integration arrangements. In particular, the Kenyan industrial community will be urged to utilise the existing regional trade information network more vigorously with a view to exploiting trade and investment opportunities within the region.

(d) International Co-operation Arrangements

8.6.11 Economic diplomacy has assumed great importance in international relations and emphasis needs to be laid on strengthening and managing international trading, investment and technology relationships. Under multilateral arrangements, Kenya is a member of the World Trade Organisation (WTO) which seeks to ensure more liberal world trade through a framework of multilateral trade negotiations. As a result, the country's exports of traditional and non-traditional goods stand to gain from reduction of agricultural subsidies, phasing out of the multifibre agreements, tariff cuts in tropical products and other manufactured goods leading to better penetration of international export markets. Kenya also receives considerable assistance from multilateral institutions, especially technical assistance from bodies, such as the UNDP, UNIDO, UNCTAD, I.B.R.D., UNEP, and UNESCO. It will be essential to participate effectively in multilateral negotiations to ensure that benefits accruing to Kenya from its membership in these institutions are maximised.

8.6.12 To further enhance economic and trading opportunities, Kenya will strive to implement existing co-operation programmes and arrangements. This will involve enhancing co-operation with relevant international organisations, especially the United Nations Organisations, and implementing programmes, such as the second Industrial Development Decade for Africa (IDDA). Kenya will also implement the WTO arrangements within the structural adjustment framework. In support of this, the technical capacity of the already established interministerial committee on WTO, chaired by the MCI, will be strengthened, through training and consistent participation in WTO meetings and workshops, in order to raise the country's capacity in negotiating Kenya's interests.

8.7 ROLE OF LOCAL AUTHORITIES IN INDUSTRIALIZATION

8.7.1 Local Authorities (LAs) have an important role to play in promoting and facilitating industrialization through provision of appropriate infrastructure, operation and maintenance of vital urban services, taxation and licensing, and land Planning and development. In addition, to provision of infrastructure and other social services, local authorities are entrusted by the Central Government with the custody and sustainable utilisation of local resources, such as land, minerals, forest and marine products, wildlife and agricultural surpluses that may be generated within communities under their jurisdiction.

8.7.2 By managing these resources and regulating access to them through licensing, LAs play an important role in local resource mobilization. Due to proximity to raw materials and markets, urban centres are the ideal location for the location of many industrial projects. Indeed, experiences from other parts of the world indicate that industrialisation tends to be accompanied by robust growth of urban populations, which, in turn, leads to increased demand for infrastructure, as well as significant increases in per capita expenditure on operation and maintenance of urban services. The Sessional Paper No. 1 of 1986 as well as the Sessional Paper No.1 of 1994 on *Recovery and Sustainable Development to the Year 2010*, recognized the important role to be played by LAs in terms of provision of necessary infrastructure and services to urban and rural areas. The role is even more important in light of the high rate of population growth and urbanization coupled with rising demand and expectations for quality services in urban and rural areas. Increased urban population in Kenya will put considerable pressure on the already strained facilities and budgets of local authorities.

8.7.3 By levying taxes, license fees and user charges in areas of their jurisdiction, LA's put upward pressure on prices of inputs needed for commerce and industry. The efficiency with which such services as water supply, garbage collection, road maintenance, security lighting, health, education and housing are provided gives appropriate signals to both existing and potential investors in their decisions to locate in a particular local authority's area of jurisdiction. To meet the challenges of industrialization and the resultant urbanisation, LA's funding will have to be reviewed to enhance quantity, quality, and efficiency of the facilities to be provided.

8.7.4 Local authorities, therefore, will be expected to develop realistic policies in respect of taxation, licensing and pricing of urban services. This will contribute to the support of industrialisation, especially by facilitating effective development and maintenance of urban infrastructure; sound urban Planning and land management; and efficient management and provision of urban services. In this context, recommendations arising from the report of the Presidential Commission on Local Authorities, together with recommendations emanating from the ongoing studies on the Kenya Municipal Reform Programme will be considered for implementation.

8.8 INDUSTRIALISATION AND ENVIRONMENT

8.8.1 As Kenya transforms into a Newly Industrialised Country, one of the major challenges it will face will be to promote industrialization without compromising the ability of the resource base to meet the needs of future generations. In the past, inadequacies, especially those governing management of the resource base, have resulted in widespread environmental degradation.

8.8.2 Environmental management tools, including laws relating to the management of internationally shared resources, cross-border issues, environmental economics and accounting, and environmental impact assessments, have not been adequately developed for effective environmental management. Environment and development issues are integral and the Ministry of Environment and Natural Resources (MENR) will coordinate the development of strategies aimed at the sustainable utilisation of resources, taking into account the need to manage and conserve them on a sustainable basis as the country moves towards higher levels of industrialisation.

8.8.3 The strategies to achieve successful environmental management during the Plan period will include:

- Enhancing harmonisation, implementation and enforcement of laws for the management, sustainable use and protection of the environment. The MENR will involve NGOs, international agencies, and beneficiary communities in its implementation arrangements, in line with the recommendations of HABITAT 2 Conference .

- Providing economic incentives and penalties to encourage sustainable use of natural resources and ecological functions.

- Improving decision-making processes by developing an efficient national environment education and information system within easy reach of users in all parts of the country.

- Enhancing cooperation with regional and international environmental programmes, treaties and agreements.

- Continuing to build capacity within the public and private sectors for integrating environmental concerns and calculations of benefits and costs into project design, implementation, evaluation and monitoring by the OVP&MPND.

- Increasing resource allocations for environmental management, including limiting solid waste and pollution in urban centres, by the Ministry of Local Government (MLG) through the Municipal Reform Program.

- Making adjustments in taxation to encourage sustainable use, management and protection of natural resources. For example, the Ministry of Finance will examine ways to provide tax relief and other benefits to encourage business and industry to use environmentally friendly technologies, while imposing penalties/fees on polluters; and to reduce or waive duty for chemicals and equipment used in effluent treatment. In addition, efforts will be made to identify and remove/reduce those subsidies/incentives that work against sustainable development objectives.

- Establishing and applying standards to estimate the quality and quantity of emissions for which charges will be levied. Possibilities for imposition of pollutant emission charges on the basis of the *polluter pays principle* will be examined by the MENR.

8.9 SOCIAL AND POLITICAL ENVIRONMENT FOR INVESTMENT

8.9.1 Since independence, the Government has been committed to maintaining a stable socio-political environment conducive to productive investment by both foreign and domestic investors. Taking this into consideration, the Government has successfully played its role in ensuring that peace and stability are maintained. It is mainly because of this that the country has achieved its past economic successes. The Constitution has been amended to introduce multi-party politics, and the first elections were successfully held in 1992. The Government is fully satisfied that its achievements have borne considerable fruit and laid a strong political foundation for further development. During the Plan period, this foundation will be built upon to strengthen those achievements already gained.

Good Governance

8.9.2 The enhancement of good governance is essential in strengthening democracy, promoting effective policy implementation, closing loopholes for corruption in the society, and strengthening social cohesion among all Kenyans. In this regard, the Government appreciates the generous efforts that have been made by the United Nations Development Programme (UNDP) and friendly countries that have supplemented the country's efforts through funding. Under the Enhanced Public Administration and Participatory Development Programme, the Government in collaboration with the UNDP and other donors, will continue to strengthen the basic institutions that are concerned with the strengthening of good governance, namely: the National Assembly, the Judiciary, the Electoral Commission, the Attorney General's Chambers, and the Ministry of Local Government. The Civil Service Reform Programme is expected to contribute to this process.

8.9.3 One of the core governance issues is the problem of corruption, which is a luxury the country can ill afford due to its association with lower investment and higher production costs. It also provides incentives for over-regulation, diversion of resources from vital development projects and undermines the Government's ability to enforce legitimate regulations and collect public revenues. International evidence indicates that corruption thrives under an environment with uncertain rules, over-regulation, low official pay scales and lax budgetary control mechanisms. It is significant to note that economic reforms implemented to-date have gradually reduced the scope for corrupt practices. However, during the Plan period, efforts will be intensified to curb corruption through legal reforms to clarify rules and regulation, civil service reform to reduce the capacity and incentives for civil servants to be corrupt. and budgetary reforms to limit abuses related to public revenues and expenditures.

8.9.4 The Attorney General's Chambers will remove constraints in the implementation of law reforms and promote its own efficiency by enhancing computerization of its various sections. The Judiciary will implement measures that will improve its operational capacity to process cases promptly through training and automation of court procedures. The Electoral Commission's operational capacity will also continue to be improved through various measures including the provision of adequate training for personnel, mapping of constituencies, registration of voters and voter education. Support to the National Assembly will improve its operational capacity to service Parliament.

8.9.5 Although the Government has been implementing some of these measures since 1992, their further implementation will continue during the Plan period and full implementation should be achieved by 1998. The Government expects to achieve a higher level of democratization through enhanced accountability and transparency in the public sector.

(c) Law and Order

8.9.6 Public security and safety help to create the conducive environment that stimulates investment in the country both by foreigners and local people. Lack of security has adverse consequences as it leads to diversion of resources to provide private security. It also creates difficult circumstances for shift workers.

8.9.7 The deterioration in the security situation in recent years is based on several factors. Firstly, rapid population growth, rural-urban migration and rapid economic reform have led to increased poverty and heightened crime. Secondly, the large number of refugees in Kenya has proved to be destabilising. Lastly, inadequate resources for law and order personnel and insufficient co-ordination between the police and other Government Departments dealing with crime have also played a role. The most serious upsurges in crime have been in motor vehicle thefts, which rose by over 50 per cent in Nairobi between 1992 and 1995, and in the trafficking in narcotic and psychotropic substances, which has increasingly become an international problem.

8.9.8 Given that the provision and guarantee of national security and the continued maintenance of law and order are primary functions of the State, the Government has taken several initiatives to reduce the level of crime in Kenya society. The Kenya police have. among other measures, provided hot-lines to enable citizens to report on crime and criminals, introduced a Public Relations Officer at police headquarters to co-ordinate and disseminate information affecting police/public relations, and introduced professional training programmes for officers to improve the effectiveness of the police force. To address the upsurge in cross border crime, the Chiefs of Police in the East African countries now meet regularly to deliberate on security issues of mutual concern.

8.9.9 Further action will however be taken during the Plan period. Firstly, to involve the communities in crime prevention, the police force will seriously explore the possibility of forming and strengthening crime prevention committees co-ordinated by local police commanders. To strengthen its management capabilities, the police will set up a school of management to train senior police officers. Under the framework of renewed East African Co-operation, the Government will propose legislation for the sharing of Criminal Intelligence Information in the East African Region. The Office of the President will also strengthen co-ordination with other agencies of crime prevention and criminal rehabilitation, including probation and after-care services, the children's department, prisons, and the judiciary.

CHAPTER 9

IMPLEMENTATION PROGRAMME (1997-2001)

9.0 INTRODUCTION

9.0.1 The strategies and measures outlined in this Plan will require renewed efforts to ensure effective and timely implementation, monitoring and evaluation. The realisation of goals spelt out in the Plan is critical in making sure that the country moves toward *Rapid Industrialisation for Sustained Development.* The success of the Sessional Paper No.2 of 1996 on *Industrial Transformation to the Year 2020* crucially depends on the extent to which this Plan is implemented. Implementation must, therefore, be time bound, that is, a predetermined timetable must be put in place, together with specified targets, so that implementation can be monitored, and performance evaluated, periodically. All problems and bottlenecks affecting performance will be identified and modalities for overcoming them will be developed and acted upon. This Plan, therefore, emphasises *effective implementation* of the Development Plan.

9.1 IMPLEMENTATION SCHEDULE

9.1.1 In the past, the monitoring and evaluation of the implementation of policies have not received sufficient attention. The establishment of Presidential Economic Commission (PEC) in February, 1996 and the launch of the Policy Framework Paper (PFP) at the same time marked a new era by putting in place a body that will ensure the deepening of economic reforms and continuous monitoring of policy implementation, in both the *public and private* sectors.

(a) Presidential Economic Commission (PEC)

9.1.2 To ensure an effective implementation scheme, PEC will become the highest authority to oversee the implementation of this Plan and of subsequent ones as well. PEC will have the mandate and responsibility to ensure the achievement of the objectives of the nation's development plans. Noting that the strategies and measures contained in the PFP are derived from long term economic reform measures stipulated in operative Sessional Papers, National Development Plans, Sectoral Policy Framework Documents, the Public Investment Programme (PIP), Forward Budget, and Budget Estimates documents, the PEC has the overall mandate of directing development policies of the country and of ensuring that such strategies fit within the time frame of the Plan. It also has the authority to ensure the achievement of the goals, and to oversee a co-ordinated and timely allocation of resources. The PEC will hold quarterly meetings to review and assess progress in implementing the Plan and to reflect on the policy agenda for the next quarter. PEC will also have the mandate to recognise and reward good performance and to censure poor performers.

(b) Secretariat to PEC

9.1.3 In order to ensure that PEC is fully briefed on the progress made by various implementing agencies, a Permanent Secretariat will be established upon the launch of this Plan. The main objective of the Secretariat will be to support the functions of the Commission. The Secretariat will be staffed with competent personnel fully conversant with economic policy matters and the institutions responsible for implementing specific policies. The Secretariat will be expected to:

- prepare and submit quarterly progress reports to the Commission on the progress achieved in implementing this development plan;

- identify problem areas and, bottlenecks and subsequently make recommendations about remedies; and

- prepare policy agenda for the next quarter based on progress reports from each line Ministry, Kenya Institute of Public Policy Research and Analysis (KIPPRA) and Forum for Private Sector Policy (see (d) below).

9.1.4 Based on approved development programmes reflected in PIP and respective work plans, policy measures adopted by the Commission will be given top priority in Government's allocation of resources. Each Ministry will be expected to prepare a detailed work plan based on the framework outlined in this Chapter, and will be required to report their respective implementation policy agenda for the next quarter highlighting successes and problems encountered in the previous quarter. In view of this, OVP & MPND will take the lead in strengthening policy analysis, coordination, monitoring and evaluation at all levels to closely work with technical departments in Government ministries in ensuring the implementation of strategies contained in this Plan.

(c) Kenya Institute of Public Policy Research and Analysis

9.1.5 The Kenya Institute of Public Policy Research and Analysis (KIPPRA) will be the public sector policy think tank. The institute will play the primary role of public sector policy analysis with a view to strengthening the operations of the Secretariat and the entire economic arena. KIPPRA will liaise closely with all public sector institutions including the PEC Secretariat, line ministries, Central Bank of Kenya, Kenya Industrial Research and Development Institute, National Council for Science and Technology, Kenya Agricultural Research Institute, and the Capital Markets Authority. It will also have constant dialogue with other private sector policy bodies and the Universities, among others.

(d) Forum for Private Sector Policy and Research

9.1.6 [illegible] a turning point in the country's [illegible] industrialisation policies, the [illegible] of infrastructure [illegible] activities, [illegible] the engine of growth as it [illegible] and realistic industrialisation [illegible] immediately to set up a Forum for Private Sector Policy and Research to ensure that policy concerns of the private sector are fully represented at the Commission and in line ministries with a view to strengthening and supporting economic policies of the country and making industrialisation a reality.

(e) Line Ministries and Departments

9.1.7 Line ministries and departments are to embark on immediate implementation of sectoral policies outlined in this Plan. The Plan not only provides the framework for long term Budget Rationalisation

Programme, but also addresses short term programme needs, the Forward Budget and the Estimates of Expenditures. It provides the benchmark on which future PFPs will be prepared. It is for these reasons that emphasis is laid on the monitoring and evaluation of the policy measures spelt out in this Plan.

(f) Public and Private Sector Relationship

9.1.8 Whereas the Government's active role in future economic development will be largely to provide the enabling environment in which the private sector can actively and effectively grow, industrialise, and create employment opportunities, the public and private sectors will become *"Partners in Progress"*. The public and private sectors will adopt a stakeholder participation approach in executing these implementation efforts. To realise full implementation of policies outlined in this Plan the Government will continuously conduct an effective dialogue with the private sector through the National Industrial Development Council (NIDC).

9.2 POLICIES, STRATEGIES, AND MEASURES

9.2.1 The Office of the Vice President and Ministry of Planning and National Development has the immediate responsibility for the co-ordination needed to ensure that strategies are translated into action. With its responsibility for policy formulation and analysis, and for preparing and monitoring National Development Plans, OVP&MPND has the primary role in co-ordinating Government policy activities. This co-ordination will be undertaken in close liaison with the PEC Secretariat. In view of the fact that giving legal effect to strengthening the Project Management Department (para. 2.1.10) may not be realised immediately, and considering the urgency of embarking on monitoring the implementation of this Development Plan (para. 9.1.4), OVP & MPND is to put in place a mechanism that will lay the foundation for immediate and future implementation of the Plan.

9.2.2 A detailed policy matrix for each of the eight chapters is presented in the subsequent section outlining policy objectives, strategies and measures to be implemented by the respective ministry or organisation, and a time frame for implementation.

IMPLEMENTATION

MATRICES FOR

CHAPTERS 2 TO 8

CHAPTER 2
MACRO ECONOMIC ENVIRONMENT FOR INDUSTRIALIZATION

OBJECTIVES & POLICIES	STRATEGIES & MEASURES	IMPLEMENTING AGENCY	TIME FRAME
Budgetary and Public Expenditure Policies 1. Reduction of the budget deficit as a proportion of GDP and eventually eliminate it.	a. Rationalisation of taxes through widening the tax net, while at the same time reducing the upper limits	MOF	1997-2001
	b. Progressively reduce import tariffs including liberal reduction in rates for capital equipment and primary raw materials	MOF	1997/98-2000/2001
	c. Enhanced revenue collection through improved remuneration and funding of KRA	MOF, KRA	1997-2001
	d .Avoid accumulation of pending bills	MOF	1997
	e. Rationalize public expenditure through maintaining proper accounting procedures, curb corrupt practices, and avoid implementation of unplanned projects.	MOF All other Ministries	1997-2001
	f. Make expenditures more cost effective by identifying and terminating non-p projects and provide full annual funding allocation for all "core" projects with at least 75% of the development budget for spending in core functional areas.	MOF, PMD (OVP&MPND)	1996/97-onwards

	g. Reduce the levels of both domestic and external debt. h. Pass and implement legislation tying budgetary allocations for public investment projects to the PIP.	MOF, CBK MOF, OVP&MPND	Continuous By June 1998
Intergovernmental Fiscal Relations 2. Improve fiscal relations between Treasury and the Kenya Municipal Reform Programme	a. Implement specific policy areas that will emanate from the on-going Kenya Municipal Reform Programme	MOF, MOLG	From 1997
3. Attain and maintain price stability	a. Maintain single digit inflation b. Reserve money to grow at no more than 6 per cent per year	CBK	Continuous 1997 onwards
	c. Government borrowing from CBK to be restricted to a maximum of 5 per cent of Ordinary Revenue in latest audited accounts		1997 onward
	d. Achieve and maintain realistic market determined interest rates through implementation of prudent fiscal and monetary policies	CBK, MOF	1997 onwards
4. Attain a stable, market determined exchange rate	a. Intervention in the foreign exchange market to smoothen fluctuations	CBK	Continuous

5. Maintain solvency and stability of the banking sector	a. Intensify surveillance of the banking system to enforce compliance with regulations and guidelines b. Explore the modalities in which CBK can directly provide long term finance to private sector	CBK CBK, MOF, AG - Chambers	Continuous 1998
Financial Sector 6. Have in place a financial institutions framework that will enable the mobilisation, intermediation, and maintenance of the flow and proper management of the country's financial resources	a. Review capitalization requirements and strengthen regulations governing professionalism and ethics in banking and related services b. Introduce regulation to check oligopolistic tendencies in the banking sector	CBK, AG - Chambers CBK, AG - Chambers, MOF	June 1997 March 1997
	c. Introduce incentives to all financial institutions to open mediation channels for the emerging informal sector, self-employed individuals	MOF, CBK	December 1997
	d. Re-orientate the Post Office Savings Bank away from mere primary deposit taking and withdrawal points to provision of secondary financial services	CBK, MOF	1998
	e. Prepare and pass legislation to allow the establishment of more privately managed Pension Funds f. Facilitate the development of long term finance instruments and institutions necessary for efficient functioning of the Capital Markets	CBK, MOF CMA	June 1997 1997

	g. Amend the cooperative Act to liberalise the sector including re-establishment of the Union Banking subsidiaries under CBK's supervision	MCD, CBK	By 1998
	h. Promote development of special financial institutions i. Establish a Rural Development Bank	MOF, CBK, CMA, MCI MOF, MCI, CBK	1997 Continuous 1999
Financial Resource Mobilisation 7. Increase the level of domestic savings and sustain flows of foreign capital	The Monetary Authority to initiate appropriate institutional strategies aimed at enhancing resource mobilisation, including the following: a. Continually review tax levels for individuals and corporations	MOF, KRA	1997 - 1998 onwards
	b. Review the Cooperative Act to enable them become more commercial oriented	MCD, MOF, AG-Chambers	1997
	c. Issuance of Corporate bonds and development of a secondary market for debt instruments	MOF, CMA, CBK	1997
Structural Adjustment Programmes 8. Restore efficiency in all sectors of the economy and thereby facilitate growth	a. Deepen the reform process	PEC (to monitor)	Continuous

CHAPTER 3
AGRICULTURE AND RURAL DEVELOPMENT

OBJECTIVES & POLICIES	STRATEGY/MEASURES	IMPLEMENTING AGENCY	TIME FRAME
Agriculture Sector Reforms 1. Create a liberalised commercial oriented agricultural sector so as to increase investment	a. Increase budgetary allocation to the MALDM	MOF	1997 - 2001
	b. Strengthen the non agricultural support services such as roads, electricity, market centres, credit facilities, etc	MPWH MENR AFC, MCD	1997 - 2001
	c. Liberalise the sector further	MALDM	Continuous
Agricultural Cooperatives 2. Strengthen the management of agricultural cooperatives	a. Amend Cooperative Act to allow Cooperatives to operate competitively, and refocus the role of Cooperative Ministry to that of regulation	MCD	1997
	b. Agricultural societies invest in value adding storage and processing plants	Cooperative Societies	1998, 1998
Production of Foodcrops 3. To ensure self sufficiency in food production, encourage food processing industries, and longer term sustainability of a liberalised maize market	a. Private sector participation in marketing strengthened by fully commercialising NCPB operations and other marketing boards	MALDM	1997
	b. Intensify agricultural extension services to improve efficient use of farm inputs (e.g. fertiliser, seeds and use of appropriate techniques in farming)	MALDM	1997-2001

	c. Improve access roads in tea, wheat, sugar and maize growing areas, and upgrade urban roads and introduce appropriate means of transport	MPWH, Local Authorities and Private Sector	1997, 1998
	d. Raise productivity by developing technologies suitable to smallholders and where feasible increase crop acerage for wheat	KARI, MALDM	From 1997
	e. Establish modalities for maintenance of strategic maize reserve stock and market interventions	MALDM, NCPB	1997
	f. Intensify research work in high yielding varieties	KARI	Continuous
Export Industrial Crops 4. Improve the production of industrial crops and strengthen agro processing industries	a. The productivity of smallholder producers raised through extension services and improved crop husbandry and harvesting techniques	Coffee Board, KTDA	1997 - 2001
	b. The management of Coffee Cooperatives improved and focus on value adding manufacturing in addition to milling and marketing of coffee beans.	Coffee Board, KIRDI	Initiate 1997
	c. Improve value added processing and packaging and expand processing capacities for both tea and coffee	KTDA, Coffee Board and Private Sector	Initiate 1997
	d. Privatise sugar factories and ensure that import duties on sugar is full paid. Also encourage smallscale cheaper technologies in sugar processing	MOF, MALDM, KIRDI	1997 - 2001
	e. Eliminate marketing monopoly by Pyrethrum Board of Kenya and introduce processing of the pyrethrum product	MOF, KARI, MALDM	By 1998

	f. Fully liberalise the cotton industry emphasizing farmer ownership of ginneries. Introduce contract farming as in the case of tobacco through incentives packages to investors	MALDM, MCI	From 1997
	g. Strengthen cotton marketing channels by developing stronger vertical linkages with textile industries	KIRDI, KARI	1997 Onwards
	h. Intensify marketing of Kenyan horticulture to maintain traditional markets and capture new ones particularly in East African and COMESA regions	EPC, KNCCI	1997 - 2001
	i. Develop Programs to encourage investments in the processing of horticultural crops j. Establish an Oil Development Council k. Review edible oil seed tariff to encourage local utilisation and production in the country	MOF, IPC MALDM MOF	1997 - 1998 By 1998 1998
Livestock Production & Processing 5. Improve the quality of livestock and increase the processing of livestock products	a. Institute a study to assess the best methods of supporting domestic use of hides and skin b. Amend the Wildlife Act, encourage exotic livestock farming	MOF, MCI, KIRDI KWS, AG	March 1997 1998
	c. Encourage investments in slaughter houses and cooling facilities in meat producing areas and in strategic locations for export purposes	MALDM, MOF	1997 - 2001

	d. Fully liberalise the dairy sector so as to encourage private sector participation in the dairy industry.	MCD, MALDM	By 1998
	e. Improve marketing facilities in meat producing areas	MALDM, MCD	1997 - 2001
	f. Amend the Dairy Act to strengthen the regularoty powers of Dairy Board and allow more actors in the industry	MALDM, MCD	1997 - 1998
	g. Develop Programs to promote export of white meat whose world demand is rising	EPC	Initiate 1997
Irrigation 6. Improve the yield from irrigation agriculture and allow farmers to diversify their agricultural activities	a. Develop Programs to provide irrigation infrastructure such as water power, roads, etc and strengthen the rule of smallholder schemes	MALDM, NIB	By 1998
	b. Initiate projects for multipurpose use/re-use of irrigation water initiated to intensity crop production under irrigation agriculture	MLRRWD, MALDM, NIB	By 1998
	c. Amend the Irrigation Act to bring large & smallholder schemes under a decontrolled organisation	MALDM	By 1998
	d. Incentives put in place to attract private sector investments in agro-processing industries, packaging and storage facilities	MALDM, MOF, IPC and Regional Authorities	By 1998

Rural Development 7. Accelerate rural development and encourage local participation in planning, and to create employment opportunities in rural areas and in small terms	a. The DDCs to facilitate investments in primary industries by giving priority to such investment proposals	Provincial Administration and Internal Security, OP	1997 onwards
	b. Finalise the establishment of District Industrial Committee	District Commissioners	June 1997
	c. Infrastructure such as roads, waste disposal, water and industrial land, improved and/or made available	Local Authorities through the KMRP, MPWH	Start from 1997
ASAL Development 8. Bring into use the productive ASAL districts	a. Put in place a programme that encourages appropriate technologies in ploughing by draught animals and develop appropriate farm implement tools, and non motorised transport	NGOs: KENDAT, ITDG and Jua Kali Operators	1997
	b. Improve accessibility in the ASAL districts	Roads 2000, MPWH	1997 onwards
	c. Institute incentives to promote the expansion slaughter houses in livestock production areas and in strategic locations to facilitate easy export to E.A. Region	MALDM, MOF, IPC, Regional authorities	1998, 1999
	d. Develop surface and ground water sources including dams, and harvesting excess run-off for smallscale irrigation and livestock production	MLRRWD	1997 - 1998

9. Improved information management for Agricultural Sector	a. Facilitate collection and analysis of agricultural statistics	MALDM, CBS	
	b. Develop and provide guidelines for data collection, standardisation and reporting	MALDM, CBS	By end 1998
	c. Dissemination Harmonised Agricultural Statistic	MALDM, MIB, CBS	Start 1997

CHAPTER 4
NON AGRICULTURAL INDUSTRIAL RAW MATERIALS

OBJECTIVES & POLICIES	STRATEGIES & MEASURES	IMPLEMENTING AGENCY	TIME FRAME
Forestry 1. Ensure sustainable exploitation of forest raw materials for increased industrial use.	a. Restructure wood procurement practices to encourage integrated harvesting to facilitate optimal allocation of logged wood to industries	MENR	From 1997
	b. Provide policies to promote investment in pulp, paper and mechanical wood industries	IPC	By 1997
	c. Forestry Act drafted and tabled in Parliament for legislation. The Act to outline strategies to tackle shortcomings in wood supply, and provide legal base to enforce supply and utilization decisions	MENR	1998
	d. Provide specific programmes to encourage farm forestry among small holder farmers to increase wood supply	MENR, KEFRI	By 1998
	e. Introduce programmes to improve efficiency of Jua Kali artisans in furniture making by improving on quality.	MRTTT, OVP&MPND	By 1998
	f. Institutional capacity analysis of the Forestry Department assessing its capacity and capability to manage forest resources will be undertaken. Recommendations herein implemented.	MENR	1998

Fisheries 2. Ensure increased landing both for domestic consumption and processing for export	a. Fish farming surveys conducted	Fisheries Department and MENR	1999
	b. Control water weeds in Lake Victoria	"	1997
	c. Stock assessment surveys in the Exclusive Economic Zone	"	Begin 1997
	d. Infrastructure around the landing beaches developed. Specifically these include access to credit, roads, cold storage, ice making plants, electricity and boat building	MPWH MENR Financial Institutions/NGO Private Sector Investors	1997 - 1999
	e. Exploration of the feasibility of establishing fish and fish related processing industries such as fish skin tannery, fishmeal, soap production, fish oil at the source of raw materials	KIRDI KNCCI	By 1998
Wildlife 3. Improved utilisation of wildlife resources	a. KWS to harmonise wildlife policy and legislation, to remove policies, laws that may hinder wildlife utilisation	KWS	By 1998
	b. Infrastructural support through training and education, will be undertaken as a means to capacity building among Wildlife Associations	KWS & NGOs	Begin 1997
	c. KWS to develop user rights to the respective District Wildlife Associations so as to reduce management commitments of KWS	KWS	1997

	d. Investigate the promotion of land preservation orders and legislation to protect areas important for wildlife and increase the involvement of local communities, and support the development of industrial capacity in wildlife utilisation.	KWS	By 1998
Mineral Based Industries 4. Ensure economic exploitation of mineral resources	a. Revised Mineral Act presented to Parliament	AG, MENR	1997
	b. Complete the geological survey mapping	MENR and DRSRS	1997
	c. Encourage mineral prospecting based on the new geological map as well as processing the raw minerals to final products	IPC	1997
Waste Raw Materials 5. Ensure processing of solid waste materials in urban and rural areas	a. Appropriate waste treatment and management adopted	MLG and Private Sector	1998
	b. Policies to Recycle waste and appropriate destruction methods are instituted	MCI	1997 - 1999
	c. Assess the quantities of agricultural waste with a view to exploiting the resource	MCI, MENR, MALDM	1997 - 1998
	d. Initiate a study on exploration, evaluation and utilisation of available metallurgical raw materials	KIRDI, MENR	1997 and 1998

OBJECTIVES AND POLICIES	STRATEGIES AND MEASURES	IMPLEMENTING AGENCY	TIME FRAME
ENERGY **Electrical Energy** 1 Ensure adequarte supply of electricity on a sustainable basis	a. Establish thermal power generation stations at Kipevu	MoE	1997 - 2001
	b. Establish Geothermal power gneration stations at Ol Karia.	MoE	1997 - 2001
	c. Establish Sondu Muriu hydro electric generating station	MoE	1997 - 2001
	d. Establish 3 more privately owned Generators	MoE	1997 - 2001
	e. Implement all restructuring measures in the energy sector, power generation, transmission and distribution	MoE (KPLC and other parastatal operators)	1997 - 2001
	f. Accelerate implementation of rural electrification	MoE	1997 - 2001
Petroleum 2. The main policy aims are improving petroleum availability to Uganda by pipeline, achieving efficiency in fuel distribution and promoting domestic exploration for oil	a. Extend Mombasa Eldoret oil pipeline to Malaba and on to Kampala	MoE	1997 - 2001
	b. Divestiture of Kenya Pipeline Corporation (KPC)	MoE	1997 - 2001
	c. Encourage private sector exploration for hydro carbons	MOE	1997-2001

Other Sources of Energy 3. The development of alternative sources of energy to supplement electricity and petroleum	a. Facilitate promotion and commercialisation of Biomass, Solar, Wind, Bargasse and other energy sources	MRTTT, NCST, KIPO	1997 - 2001
TRANSPORT INFRASTRUCTURE Roads 4. Continue implementing a programme for provision of adequate funding and strngthen management of roads	a. Continue implementing the Strategic Plan for road maintenance	MPWH	1997-2001
	b. Continue adjusting the fuel levy to generate more revenues and dedicating all revenues to road maintenance	MPWH/MoF	1997-2001
	c. Facilitate the establishment of an automous Executive Roads Board to manage the Road Maintenance, Fuel levy funds and road maintenance by involving the road users	MPWH, MTC, MoF/	July 1997
	d. Study the feasibility of inviting the private sector to invest in road construction under the Build Operate Transfer (BOT) framework	MPWH, MTC, MoF	July 1997
Urban Transport 5. Improve urban transport efficiency	a. Continue implementing the KUTIP Project to upgrade transport infrastructure in 26 towns and strengthen infrastructure management	MLG in collaboration with IDA, MPWH/Executive Roads Board	1997-2001
Non-Motorized Transport (NMT) 6. Increase accessibility and mobility in rural areas to supplement motorized transport	a. Facilitate development of NMT by increasing awareness and promoting NMT through NGOs and private sector	OVP&MPND, MPWH, MTC, MRTTT	1997-2001

Railway Transport 7. Continue implementing KR's restructuring	a. Implement all restructuring projects under the programme	MTC, MOF, KR	1997-1998
Marine Transport 8. Continue increasing efficiency of marine transport	a. Implement all projects under KPA's restructuring programme to completion b. Implement all projects and Kenya Ferry Services	MTC, MOF, KPA MTC, MOF, KPA	June 1997 June 1997
Air Transport 9. Inrease efficiency of air transport	a. Strengthen CAB's capacity to play its regulatory role b. Equip and modernise DCA's facilities and equipment for air navigation	MTC MTC	1997-2001 By December, 1997
	c. Undertake a Study on Privatization of management of international airports and if found feasible, work out modalities for the same	OP, MTC	By December, 1997
Pipeline Transport 10. Increase efficiency of pipeline transport	a. Complete implementation of all measures for divestiture for KPC and Kenya Petroleum Refineries	ME, MoF	June 1997
Communications **Postal and Telecommunications** 11. Increase efficiency in the provision of postal and telecommunications services	a. Complete implementation of all restructuring programmes for KPTC, principally separating postal and telecommunications into two separate bodies and privatising the latter as well as the setting up of a separate regulatory body	MOTC, KPTC	1997-1998

Meteorology 12. Increase efficiency and capacity of meteorological services	a. Re-equip and rehabilitate equipment for Meteorological Department by providing funding	MTC	1997-1998
Information Dissemination and Advocacy for Industrialization 13. Increase awareness on industrialization and inculcate industrial culture	a. Improve information dissemination on industrialization through electronic and print media	MIB	1997-2001
	b. Increase KBC's radio and TV coverage to 90% and 60%, respectively c. Liberalize further the airwaves	KBC MIB	1997-2001 1997
Water and Sanitation 14. Improve management of water resources • Efficient Disposal of Waste-Water	a. Revise Water Master Plan b. Continue implementing all programmes and projects under the revised Master Water Plan	MLRRWD NWCPC	1997-2001 1997-2001
	c. Rehabilitate and improve sewarage system	MLG / LAs	1997 - 2001
Land 15. Avail land for industrial use	a. Implement provisions of the Physical Planning Act of 1996 b. Revive the Estate Development Fund	MLS, AG, MLG. All Land Liaison Committees " "	June 1997 June 1997
	c. Improve information on land d. Provide information to the public	" " " "	June 1997 December 1997

CHAPTER 6
HUMAN RESOURCE DEVELOPMENT AND WELFARE POLICIES

OBJECTIVES AND POLICIES	STRATEGIES AND MEASURES	IMPLEMENTIN G AGENCY	TIME FRAME
Populatin			
1. Acceleration of the decline in total fertility rate.	a. Expand immunisation, children and care for pregnant and lactating mothers, improve educational opportunities for young girls and expand use of contraceptives	MOH, MEd, SDD Programme (OP)	Continuous
Education			
2. The Government's key objectives and policies during the Plan period relate to increasing enrolment and completion rates especially for primary education, streamline financing of education and improve the relevance of education within the context of industrialisation	a. Strengthen implementation of Early Childhood Development (ECD) so that participation rates for pre-primary education is raised from 35% to 50%	MCSS	1997-2001
	b. Shift more resources from post-primary to primary education. Expenditure on primary education to be raised from the present 57% to 67% of recurrent expenditure on education	MEd, MOF	By 2001
	c. Attain targeting of bursay funds trhrough the development of 'povery map' based on WMES.	MEd	1997
	d. Fully integrate persons with special learning needs into the education system.	MEd	1997-1999

	e. Remove subsidies to boarding services not direly related to education, introduce a ceiling on Government subsidies per student and make Government support be student-based and not school-based.	MEd	1997-1998
	f. Prepare a special intervention to improve enrolment in ASAL regions g. Restructure and increase capitalisation of the HELB so that it can extend loans to all qualifying tertiary level students and act as a revolving fund	MEd MEd, MOF, AG Chambers	1997 1997-1998
	h. Amend Universities Act to allow CHE to act as an accreditation institution with visitation and inspection rights, while the CHE will update the Directory of Post Secondary Training institutions to facilitate visitation and inspection process	MEd, CHE	1997
	i.. Enhance staff development programmes, upgrade laboratories and workshops in Government run institutions and develop a program to expand middle level technical colleges.	MEd, MRTTT	1997
	j. Carry out a review and assessment of the short, medium and long term requirements of scientific manpower as regards adequacy of their numbers, relevance and quality	NCST	1997-1998

Manpower Training 3. Focus generally on meeting industrial training needs and the potential to meet their needs. The training of specialised research and development personnel will lay emphasis on the role of each area of study on industrialisation. Come up with a training system easing the transition from school to the workplace.	a. Investigate modalities of improving the resource levels of individual training institutions and re-orient their curricula to meet the specialised skills essential for industrialisation and harmonise occupational qualifications	DTT (MRTTT) MLMD, MEd	1997
	b. Increase the role of the private sector in managing mandated training funds such as the Industrial training levy.	MRTTT	By 1998
	c. Harmonisation and co-ordination of development of curriculum as well as provide a strategy to tackle they current shortcomings in curriculum	MEd, MRTTT, MLMD	By 1998
	d. Establishment of post-gradute schools in public universities and introduce short term courses of between six to twelve months at the universities and the national polytechnic.	CHE, MRTTT MEd	By 1999
	e. Enact legislation to enable the KNEC to co-ordinate certification for all national exams below university level.	MEd, MRTTT	1997
	f. Carry out a short and medium term assessment of scientific manpower requirements.	NCST	1997-1998
	g. Introduce client oriented training in the Public Service and initiate an expansion of training budgets	DMP (OP)	Continuo

Employment and Labour Market Policies 4. The Government's main objective is to put in place appropriate policies that will facilitate the expansion of employment opportunities, develop an intervention strategy in the special area of youth employment; provide an enabling environment for good work culture and ethics; and facilitate the attainment of efficiency and flexibility in the labour market.	a. Complete work on Employment Policy document b. Strengthen Youth Polytechnics and enhance the role of NYS in offering vocational training c. Extend credit to organised youth groups	MLMD MRTTT, OP NYDP (OP)	By 1997 By 1997 onwards 1997 onwards
	d. Provide marketing and business centres.	MRTTT, MCI, MEd	1997 onwards
	e. Seek to be an integral part of the global economy through bench marking so as to upgrade general skills, technological capacities, etc	MRTT, MCI	From 1997
	f. Abandon the Wage Guidelines. g. Initiate discussions aimed at introducing reforms in the labour market regarding redundancy regulations	MLMD MLMD AG Chambers	1997 By 1998
	h. Review and adopt a less rigid wages and more market oriented salaries adjustment mechanism for the public service. i. Intensify programs to boost the quality of Kenyan products	DPM, PSC KEFS, FKE	1998 Continuous

Poverty Intervention 5. Provide support to population who cannot wait unitl economic growth accelerates and who cannot readily participate in it because of special handicaps such as isolation.	a. Implement an ASAL strategy and action plan which includes programmes designed to provide a safety net to enhance the economic integration of the population in such regions with the rest of the economy.	MLRRWD	1997 onwards
	b. Intensify the implementation of the SDD Programme including clear identification and implementation of priority projects	OP	1997-2001
Youth Development 6. Focus on putting in place interventions to assist the youth in employment, income generation and skills upgrading	a. Operationalise the NYDF through the District Development Committees (DDCs).	OP	1997
	b. Provide modalities for upgrading Youth Polytechnics to provide greater training opportunities.	MRTTT	1997-1998
	c. Provide youth counselling networks focusing on career and income generation issues.	MCSS	1998-1999
	d. Provision of a revolving fund to facilitate payment of fees at YPs	MRTTT, MEd	By 1998
Health 7. Alleviate the constraints currently faced by the health sector including underfunding; an elaborate but underutilised health infrastructure; low level of staffing and an uneven distribution of personnel; and an outdated regulatory framework.	a. Undertake a comprehensive review of the Factories and Other Place of Work Act and the Public Health Act with a view to strengthening occupational health in the work-place.	MLMD, AG MOH	1997-1999

	b. Continue and enhance implementation of strategies identified in the National Plan of Action for nutrition whch was released in 1994	AG Chambers, MOH	1997-2001
	c. Proper coordination of implementation of the activities and specific actions identified in the implementation and Action Plan so as to operate the Health Sector Policy Framework paper.	MOH	1997-2001
HIV/AIDS Pandemic 8. Reduce the spread of AIDS and respond to the impact of the epidemic on the population.	a. Make appropriate institutional arrangements for successful implementation of the Policy Paper on AIDS of 1996 and ensure wider participation of the Kenyan Society in AIDS control activities.	MOH	Continuous
	b. Launch a Sessional Paper on HIV/AIDs	MOH	1997
Shelter and Housing 9. Attain adequate shelter for all and ensure sustainable human settlements in urbanising Kenya.	a. Implement the strategies and programmes proposed in the National Report on Human Settlements. b. Implement the National Environment Action Plan (NEAP) policies.	MPWH, MLG MENR	1997-2001 1997-2001
Other Welfare Perspectivs 10. Focus efforts on child related welfare issue, on improving the social security system, promoting civil society and ensuring the security of the society is guaranteed	a. Finalise the Children's Act operationalise the convention of the Rights of the Child and the African Charter. b. Review of the NSSF Act.	AG Chambers, MCSS, MHNH AG Chambers, MLMD	1997 1997

	c. Review the NHIF Act with a view to make it autonomous from the Ministry of Health and to facilitate the establishment of other health insurance schemes.	AG Chamber, MOH	1997-1998
	d. Promote the role of sports as a means of enhancing the physical and psychological fitness of the individual, provide recreational relief and promote the sports industry.	MCSS	1997

CHAPTER 7
RESEARCH AND DEVELOPMENT

OBJECTIVE AND POLICIES	STRATEGIES AND MEASURES	IMPLEMENTING AGENCY	TIME FRAME
Private Sector Participation in R & D spending 1 .Boost private sector spending on R&D to at least 0.6 - 1.0% of GDP annually	a Continue with policy rationalisation of Tariff structure and reduction of Tariff levels	MOF	From 97/98 budget
	b Make R&D expenditures tax deductible	MOF	1997/98
	c. Allow the establishment of tax free R & D funds	MOF	From 1997/98
	d .Allow tax free importation of R & D equipment and consumables	MOF	1997/98
	e .Restructure and strengthen KIRDI to promote R & D activities among SME's	MRTTT	By 1998
	f .Raise budgetary allocation for the implementation of patent laws and strengthening anti piracy activities	MOF	By 1998
	g Special exemptions in issuance of work permits for R & D personnel to promote private sector R & D activities	IMD, MCI, MRTTT	By 1998
	h .Encourage research contract arrangement between public and private sector	MRTTT, MCI	From 1997
	i .Institutionalise annual review procedure for private R & D efforts	MRTTT	By 1998

Focus of Public R & D Expenditure 2 Refocus public sector R & D expenditure to focus on industrialisation with at least 14% - 20% of R % D funding going to industrial research	a. By annual increments increase allocation to industrial R & D to 14 - 20% of total public R & D	MRTTT, NCST, MOF	1997 - 2001
Focus of Funding of R & D 3 .Enable MRTTT to adopt an arms length approach to financing industrial research and allow private sector access to public R & D funding for industry	a .Establish a National Industrial Research Fund where both private and public R & D bodies can submit proposals for funding	MRTTT	1997/98-2001 budget proposals
Technology diffusion 4 .Encourage rapid diffusion of imported technology to all segments of industry	a .MRTTT to set up a committee to establish a mechanism for rapid and widespread diffusion of technology	MRTTT, NCST	By 1998
Technology assimilation 5 .Ensure rapid assimilation of foreign technology to all segments of industry	a .Strengthen KIPO and NCST to be able to formulate plans for targeting foreign technologies for rapid adaptation assimilation and upgrading	MRTTT, DPM	By mid 1998
	b Explore the possibility of establishment of a Technology Management Centre (TMC)	MCI, MRTTT	1997
Technology Negotiations 6 .Improve the capacity of the private sector to effectively bargain for foreign technology	a Promotion of the training of specialists for technology negotiations	MRTTT, DPM	To begin by 1997

Investment capabilities 7 .Build up Kenya's stock of investment capabilities to reduce reliance on foreign CEDS	a .Establish an independent autonomous engineering core group under the MCI to get involved in project implementation	MCI, DPM	By mid 1998
Skills improvement 8 .Reduce the negative impact of shortcomings in project management process engineer, testing, etc.	a .Shortcomings in project management, process engineering testing, etc to be identified by a specialist committee to submit proposals to tackle these shortcomings	MCI, MRTTT, KAM FKE, IEK	By 1998
SMES Quality Control 9 .Enable SMES to boost the quality control to be able to meet the ISO-9000 standards	a .MCI and KEBS to come up with a programme to assist SMEs and exporters address quality related issues b KEBS to publicise ISO 9000	MCI, KEBS KEBS	By 1998 1997
Technology Infrastructure 10 .Improve the support given to technology producers and users by improving the technology infrastructure	a .Programme to strengthen industry associations and technology support bodies so as to upgrade the technology infrastructure	MCI, MRTTT	By mid 1998
Technology Culture 11 .Promote technology culture with a view to imbuing Kenyans with an appropriate appreciation of the role of technology	a To promote a technology culture, various bodies will address curriculum reform, promote science and technology and co-opt the private sector in promoting a technology culture	MEd, MRTTT, NGO's, MCI, OVP&MPND, NCST	From 1997

Jua-Kali technology development 12 .To strengthen the networking of institutions promoting marketing and technology development for the Jua Kali sector	a .MCI and IPC will continue to implement the roles assigned to them in Sessional Paper No. 2 of 1992	OVP & MPND to coordinate	On-going by 1997
Public R & D institutions 13 .Reduce the operational problems in public R & D institutions to enable them to function more effectively	a .R & D institutions to be restructured to make them more private sector oriented in their operations	MRTTT	To begin by 1998
	b .NCST Act to be reviewed to make the council more autonomous	MRTTT, NCST	1998
	c .KIPO's status to be reviewed to make it more autonomous	MRTTT	1998

CHAPTER 8
INDUSTRIAL SUPPORT FRAMES WORK

OBJECTIVES AND POLICIES	STRATEGIES AND MEASURES	IMPLEMENTING AGENCY	TIME FRAME
Market Development			
1. Institutional support in developing competitive markets	a. Enforce provisions of the Restrictive Practives and Monopolies Commission Act (1989)	MOF, MCI, AG Chambers	1997
2. Development of competitive market environment	a. Provision of market information.	MOF	Continuous
	b. Creation of regional, wholesale markets.	MCI	Continuous
	c. Promotion of fair trading and competion.	MCI, MOF	Continuous
	d. Prevention of unfair market conducts and cartels	AG Chambers, MCI, MOF	Continuous
3. Development of Export Markets.	a. Support development of oversease markets through embassies and missions abroad	MOF, MCI, MALDM, EPC	1997 - 2001
4. Development of specialised markets.	a. Support stock exchange	MOF, CMA	1997/1998
	b. New specialised markets such as Options and Bonds	MOF, CMA	1997 - 2001
	c Future markets, secondary markets in treasury bills, commodity exchange markets will be developed.	MOF, CMA	1997 - 2001
Investment and Export Promotion			
5. To establish a forum for dialogue between public and private sector in formulation of strategic business plans.	a. Establishment of NIDC as a forum for dialogue between the public and private sectors to develop consensus on various industrial and economic issues.	MCI, OP	1997
	b. Enactment of an industrial Development Act to, inter alia, give NIDC legal status and mandate	MCI, AGs, MOF	1997

6. Enactment of Investment Codes	a. Make investment approval procedures and incentive packages more transparent. b. Make incentive packages more competitive, reduce opague rules and procedures.	MOF, MCI. IPC MOF, MCI, IPC	By 1998 1997 -2001
7. Attract foreign investment and promote exports	a. Allocation of additional resources to IPC, EPC, EPZA, through the enactment of an industrial development levy b. Opening of trade and investment offices in key countries and regions overseas.	MOF, MCI IPC, EPC	1997-2001 Continuous
	c. Explore modalities for setting up on export crediit, guarantee and insurance scheme	MOF/CBK	1997 - 1998
	d. Maintain stable and prdictable macro-economic environment and exchange rates. e. Improve EPPO programme by introducing more effective and efficient duty VAT remission scheme.	MOF, CBK MOF	Continuous 1997
	f. Enhance the quality of locally manufactured products for exports by review and upgrading of standards.	KEBS	Continuous
8. Strengthen IPC	a. IPC will be upgraded, restructured and strengthened to conform to international standards, especially in processing investment requests provision of information to investors and coordination.	MOF, IPC	1997 - 2001

9. Strengthen EPZA	a. Complete Construction of industrial buildings at the Athi River Zone b. All industrial land in phase one of Athi River EPZ taken up by private sector for development	MCI, MOF EPZA, ,MCI	1997 By 2001
	c. EPZA develops public EPZ in Mombasa Kipevu for light industry, Kokotoni for heavy and large industry	EPZA	1997 - 1998
	d. Co-ordinating Center for Investment (CCI) will be established within EPZA	EPZA	1997-98
	e. EPZA works with KAM, KNCCI and other private entities to establish three inter related programmes to enhance product quality and technology	EPZA	1997
10. Strengthen EPC	a. Establish export targeting system. b. Formulate "COMESA Plan" c. Establish a system of quartely trade promotion meetings	EPC EPC, MCI EPC	1997 -1998 1997 1997
Small and Medium Enterprise Development 11. Promotion of small/medium scale enterprise sector	Develop and review the legal and regulatory environment for the informal sector activities	MCI, MOF, Local Authorities	1997 -1999
Tourism 12. Promotion of Tourism Industry	Strengthen the Tourist Board	KTB, MOTW	Continuous
Information 13. Improve access and utilisation of information	Establishment of Information System Department	MCI, KBS, TIIC, CBS, CBK, IPC	Continous

Regional and International Relations 14. Improve Regional and International Cooperation	a. Continue the effort to reduce and eliminate tariff and non-tariff barriess, within the regional bodies. b. Take advantage of Cross Border Initiatives	MFAIC, OVP&MPND MFAIC, OVP & MPND, MCI	Continuous Continous
	c. Popularise facilities and opportunities available under regional and integration arrangements		
	d. Pursue implementation of the requirements of the WTO arrangements	MCI	Continuous
	e. Pursue eventual establishment of a common market in the African region	OVP&MPND	Continuous
Local Authorities 15. Active role of Local Authorities in Industrialisation	a.. Complete the sector-wide study of source of central and local Government's revenues b. Strengthen revenue administration and initiate capacity building in revenue collection and budgeting	MOF MLG, MOF	1997 1997 - 2001
	c. Update the schedules of activities subject to local authorities fees and licences d. Complete the studies carried out within Kenya Municipal Reform Programme and make recommendations	MLG MLG	1997 - 1999 1997
	e. Implement productivity improving schemes like computerisation of accounting and financial management	MLG, LAs	1997 - 2001

	f. Expnand the scope of the retrenchment exercise in the civil service to include the local authorities	DPM	1997 - 2001
	g. Implement the scheme of service and performance appraisal system for local authorities h. Redefine clearly the duties of local authorities chief executives	MLG, DPM, LAs MLG	1997 - 2001 By 1998
	i. Amend Local Government Act to provide for a broader resource base for local authorities and reduce oversight by the central Government	MLG	By 1998
Industrialisation and Environment 16. Harmonising environmental conservation and industrialisation for Sustainable Development	Implement the National Environmental Action Plan (NEAP)	MENR	Continous
Social and Political Environment for Investment 17. Provide conducive social and political environment for industrialisation	a. Eliminate excessive regulations to reduce business costs and to prevent corruption b. Implement civil service' reform measures c. Implement and promote the core aspects of good governance, especially through the legal constitititutionalisation of a code of ethics for public servants, the legal reinforcement of anti-corruption methods and legistlation to reduce discretionary powers of public servants.	MCI, MOP, AG, OP OP,(DPM) OP, AG, OVP & MPND	Continuous 1997 - 2001 Continuous

18. Enhance National identity by culture promotion	Promote and develop Kenyan culture through a variety of listed programmes	MCSS	Continuous
Law and Order 19. Promotion of security to hasten industrialisation	In order to increase public security and safetly, the Police Department will pursue policies and actions aimed at strengthening its management capabilities, involve local communities in crime prevention, increase involvement in regional and international crime prevention and criminal rehabilitation. There will also be greater co ordination between the police force and other law enforcement organs	OP (Police)	1997-2001