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INDUSTRIAL DEVELOPMENT REVIEW SERIES

KENYA

Paving the road to NIC status

V.96-84671

CONTENTS

LIST OF TABLES, FIGURES AND BOXES

FIGURES

BOXES

CHAPTER I

PREFACE

This Industrial Development Review of Kenya has been prepared by the Industrial Sector Survey Team of the Research and Studies Branch of UNIDO. The preparation of the Review is linked to the substantive activities of UNIDO in general and the IDDA II-related programme in particular on redefining national priorities in the pursuit of rejuvenating promising subsectors of manufacturing. The Review is intended primarily to identify the industrial needs, priorities and opportunities and in particular to provide a ready source of information and analysis of the manufacturing sector in regard to the industrial structure and performance, emerging industrial investment and trade opportunities across manufacturing subsectors.

The Review is designed to accommodate the needs of a wide readership in the international industrial community associated with industry, finance, trade, investment, business, research and government. More specifically the analyses contained in the Review are intended to support technical assistance programming and investment promotion activities as well as to serve as a basis for informed discussions of the emerging opportunities for industrial expansion in Kenya.

The Review comprises three Chapters. Chapter I presents a diagnosis of the economy of Kenya, focusing on the overall context of industrialization and the industrial policy environment for investment. Chapter II analyses the structure and performance of the industrial sector with particular reference to output, employment, productivity, investment pattern, environmental issues, manufacturing trade and industrial location. Chapter III focuses on industrial branch profiles, highlighting the resource base, recent trends in terms of production, imports, exports, investment and trade opportunities for each disaggregated manufacturing segment, unveiling the avenues of emerging opportunities for industrial expansion.

The Review has been prepared by UNIDO on the basis of substantive contributions provided by Ms. Irene Gatling and Mr. G. H. Olum as UNIDO consultants.

EXPLANATORY NOTES

References to dollars ($) are to United States dollars, unless otherwise stated.

Dates divided by a slash (1991/92) indicate a fiscal year or a crop year. Dates separated by a hyphen (1991-92) indicate the full period, including the beginning and end years.

In Tables:
Totals may not add precisely because of rounding.
Two dots (..) indicate that data are not available or not separately reported.
A dash (-) indicates that the value is nil or negligible.

The following abbreviations are used in this publication:

AEF	Africa Enterprise Fund
APDF	African Project Development Facility
ASALs	arid and semi-arid lands
AVA	Associated Vehicle Assemblers
BAT	British American Tobacco Company Kenya
BP	British Petroleum
BPCC	Bamburi Portland Cement Company Limited
CAN	calcium ammonium nitrate
CBK	Central Bank of Kenya
CBU	completely built up
CKD	completely knocked down
CMA	Capital Markets Authority
COMESA	Common Market for Eastern and Southern Africa
DAP	diammonium phosphate
DDF	District Development Fund
DEG	German Development Bank
DFCK	Development Finance Company of Kenya
DFS	District Focus Strategy
DGIPE	Department of Government Investments and Public Enterprises
EACC	East African Cooperational Council
EADB	East African Development Bank
EAPCC	East African Portland Cement Company
EDESA	Economic Development for Equatorial and Southern Africa
EPC	Export Promotion Council
EPZs	Export Processing Zones
EPZA	EPZ Authority
ESTU	Executive Secretariat and Technical Unit
EU	European Union
FIPA	Foreign Investment Protection Act
FKE	Federation of Kenya Employers
FMO	Netherlands Overseas Finance Company
GDP	gross domestic product
GM	General Motors Ltd
GNP	gross national product
HCDA	Horticultural Crops Development Authority
ICDC	Industrial and Commercial Development Corporation
ICSID	International Centre for the Settlement of Investment Disputes
IDB	Industrial Development Bank
IFC	International Finance Corporation
IMF	International Monetary Fund
IPC	Investment Promotion Centre
IPS	Industrial Promotion Services Ltd.

JCI	Japan Consulting Institute
KAM	Kenya Association of Manufacturers
KCB	Kenya Commercial Bank
KCC	Kenya Cooperative Creameries
KEAS	Kenya Exporters Assistance Scheme
KEDS	Kenya Exporter Development Support
KIE	Kenya Industrial Estates
KIRDI	Kenya Industrial Research and Development Institute
KMC	Kenya Micro Computer
KNCCI	Kenya National Chamber of Commerce and Industry
KPC	Kenya Pipeline Company
KPR	Kenya Petroleum Refineries
KPTC	Kenyan Post and Telecommunications Corporation
KRAA	Kenya Revenue Authority Act
Ksh	Kenyan shilling
KSTS	Kenya Small Traders Society
KTDA	Kenya Tea Development Authority
KVM	Kenya Vehicle Manufactures Ltd
KWFT	Kenya Women's Finance Trust
LPG	liquefied petroleum gas
MIGA	Multilateral Investment Guarantee Agency
MUB	Manufacturing Under Bond
MVA	manufacturing value-added
NBFI	non-bank financial institutions
NGOs	non-government organizations
NIC	newly industrialized countries
NPK	nitrogenous phosphate and potassic fertilizers
NSE	Nairobi Stock Exchange
ODA	official development assistance
PABX	private automatic branch exchanges
PAPM	Pan African Paper Mills
PRPC	Parastatal Reform Programme Committee
PTA	Preferential Trading Area
REF	Rural Enterprise Fund
RMPCA	Restrictive Trade Practices, Monopolies and Price Control Act
RTPC	Rural Trade and Production Centres
SADC	Southern African Development Community
SEFCO	Small Enterprise Finance Company
SMEs	small and medium enterprises
TSP	triplesuper phosphate
UNEP	United Nations Environmental Programme
VAT	value-added-tax
WTO	World Trade Organization

BASIC INDICATORS

BASIC INDICATORS I: THE ECONOMY

Population (1994)	:	25.4 million[a/]
Annual growth rate of population (1980-1990)	:	3.5 per cent
Labour force[b/] (1990)	:	8.18 million
GDP (1994)	:	Ksh 9,493 million
GDP per capita (1993)	:	$270

Growth of GDP (percentage) :

1988	1989	1990	1991	1992	1993	1994
5.2	5.0	4.3	2.1	0.5	0.2	3.0

Structure of GDP (percentage) :

	1980	1994
Agriculture	30.3	25.0
Manufacturing	13.0	13.6
Trade, tourism	10.8	11.3
Business services	6.3	9.6
Building and construction	4.7	2.5
Other	34.9	38.0

Exports (1993)	:	Ksh 3,678.3 million
Principal exports	:	Tea Coffee Cement
Imports (1993)	:	Ksh 5,056.4 million
Principal imports	:	Mineral fuels Chemicals Manufacturing goods Machinery and transport equipment
Current account surplus (1994)	:	$104
International reserves (1994)	:	$1.057 billion
External debt (1994)	:	$6.9 billion
Debt service ratio (1994) (Percentage)	:	34.1[c/]

Consumer price change (Percentage) :

1990	1991	1992	1993	1994
15.8	19.6	27.3	46.0	28.8

Exchange rate (Ksh equivalents to US$1) :

1990	1991	1992	1993	1994
23.1	27.3	32.3	58.0	56.1

a/ Provisional.
b/ Estimated number of persons employed in the formal and informal sectors is only 3 million.
c/ Central Bank of Kenya estimates.

BASIC INDICATORS II: THE MANUFACTURING SECTOR

MVA (1994) : Ksh 1,696.5 million

MVA per capita (1994) : Ksh 66.79

Manufacturing employment (1993) : 193,400

Real growth of MVA (percentage) :

1990	1991	1992	1993	1994
5.3	3.9	1.3	1.8	1.9

Structure of MVA (percentage) :

	1980	1991
Food processing	23.90	30.16
Beverages	10.36	11.51
Machinery and transport	17.08	9.86
Chemicals	8.24	9.32
Textiles and clothing	9.21	7.08
Metal products	5.92	6.22
Other	25.29	25.85

Share of manufacturing exports in total exports (1994) (percentage): 48.4

Structure of industrial exports (1994) (percentage) : Consumer goods (28.1), processed food and beverages (25.6), processed industrial supplies (42.2), transport (2.3), machinery and equipment (1.9)

Share of manufacturing imports in total imports (1994) (percentage): 74.5

Structure of industrial imports (1994) (percentage) : Processed industrial supplies (43.9), capital equipment (20.6), transport equipment (16.5), processed food and beverages (10.1), consumer goods (9.0)

BASIC INDICATORS III: INTER-COUNTRY COMPARISON OF SELECTED INDICATORS[a/]

Indicator	Unit	Kenya	Ethiopia	Nigeria	Uganda	United Republic of Tanzania
Population (1993)	Million	25.3	51.9	105.3	18.8	28.0
Area	Thousand square km	580	1,097	924	236	945
GNP per capita (1993)	$	270	100	300	180	90
Average annual rate of inflation (1980-1993)	Percentage	9.9	..	20.6	..	24.3
Private consumption (1993)	Percentage of GDP	66	86	63	89	82
Gross domestic investment (1993)	Percentage of GDP	16	12	15	15	51
Gross domestic savings (1993)	Percentage of GDP	21	3	19	-2	10
Exports of goods and services (1993)	Percentage of GDP	42	..	36	5	31
Energy consumption per capita (1993)	Kg of oil equivalent	99	23	141	21	35
Food industry (1992)	Percentage of MVA	39	62	..	..	..
Textiles and clothing (1992)	Percentage of MVA	9	21	..	..	..
Machinery and transport equipment (1992)	Percentage of MVA	10	1	..	..	..
Chemicals (1992)	Percentage of MVA	9	2	..	..	..
Other industries (1992)	Percentage of MVA	33	14	..	..	..
Manufactured exports to OECD countries (1993)	$ million	133	2	199	3	51
Current account balance (1992)	$ million	153	-183	2,268	-107	-408
Gross international reserves (1993)	$ million	437	500	1,640	146	203
External debt (1993)	$ million	6,994	4,729	32,531	3,056	7,522
Debt service ratio (1993)	Percentage	28.0	9.0	..	143.6	20.6

Source: World Bank, *World Development Report 1995*, Washington D.C., 1995.

a/ Data for Kenya may not correspond to those cited elsewhere in this report because of different sources.

SUMMARY

Since gaining independence in 1963, Kenya's economic performance has been mixed. From 1963 through the mid 1980s, the country followed a policy of market economy with strong government intervention and public-sector led growth and development. Policy in the early years also focused on import substitution. From 1986, however, policy switched to one of decreased direct government presence in the economy, with government's main role being that of creating an "enabling environment" in which the private sector could flourish. In recent years this has included a move to reform the entire economic system. These reforms, it is hoped, will re-establish economic stability, and accelerate and sustain development. In the immediate term, it is hoped that they will result in renewed business confidence, both by domestic investors and potential international investors.

Since 1986, and especially in the last few years, a great deal of progress has been made in this direction. The trade regime has been liberalized, foreign exchange regulations have been abolished, the shilling floated, reform of the financial sector has begun, the budget deficit as a per cent of GDP has been slashed, and the rationalization of the civil service and privatization and/or restructuring of the many state-owned enterprises has been started. Moves have also been made to ease the regulations and limits on foreign investment, and in fact to encourage such investment.

Ultimately Kenya would like to adopt the east Asian model of such countries as the Republic of Korea, Hong Kong and Singapore. It was with this model in mind that *Sessional Paper No. 1 of 1994 on Recovery and Sustainable Development to the Year 2010,* stated the government's endeavour to follow a strict macroeconomic management with tight control of budget deficits, money supply and inflation; establish an outward orientation which does not overvalue the shilling but allows ready access to foreign exchange; establish trade policies which foster an export bias and stimulate private foreign investment; develop the country's human resources through education and training; liberalize the labour market to increase labour mobility; and especially to rely on the "private sector to determine industrial expansion".

In addition to policies directed specifically at economic factors, a large of part of Kenya's recent efforts focus on the need to restore political stability and confidence at home, and international credibility. After 30 years of political stability, in the past four years the country has been plagued with ethnic strife, often of a very violent nature. In *Sessional Paper No. 1 of 1994*, the government acknowledged the need to address the political problems facing Kenya and pledged to create a "tolerant society in which all Kenyans, regardless of their ethnic background, colour and creed are free to practice and profess their customs, cultures and religious beliefs". To achieve this, the Government pledged to put an appropriate institutional framework into place.

While growth in the later half of the 1980s was a vast improvement over that of the first half of the decade, manufacturing did not take off as had been the goal. After 1989, real growth slowed for a combination of factors including: a period of severe drought which decreased agricultural production as well as led to power rationing; ethnic strife which disrupted agricultural production; uncertainty surrounding the 1992 multi-party elections which reduced investment and the number of tourists to the country; and a large inflow of refugees which put a strain on the country's limited resources. Recession in many of Kenya's export markets also exacerbated the situation by decreasing export earnings and thus the country's ability to import capital goods and other inputs. The price of coffee, Kenya's second largest export and foreign exchange earner, also fell during the period, and the country's import capacity was severely limited by the freezing of quick-disbursing aid (balance of payments support) in November 1991 (reversed two years later). The election year 1992, also saw serious lapses in fiscal and monetary restraint and inflation soared reaching a high of an annualized rate of 100 per cent in June 1993.

By 1994, it was clear that the policies and initiatives in the 1986 Sessional Paper needed to be reframed and taken a step further. By the end of that year, the Government had pushed through a wide range of reforms including the restructuring of the financial system, deregulation of the oil sector which abolished the last price controls that were still in place in the country, and renewed

efforts to speed the reduction of the government's direct influence in the economy, especially in the form of efforts to increase the pace of privatization.

The new and renewed initiatives appear to be having the desired effect. The average annual rate of inflation was reduced to 8.7 per cent by May 1995 and the three month annualized rate down to 4.2 per cent. Between June and October 1994, the shilling appreciated in value from KSh56:$1 to KSh42:$1, and remained strong for eight months until it dropped to a more realistic value of KSh51:$1 in May 1995. Foreign exchange reserves rose to equal five months import cover by May 1995 and Kenya got back on schedule repaying its foreign debt, including the clearing of a portion of accumulated debt service arrears.

GDP rose 3.0 per cent in 1994, and the production of agricultural goods rebounded at the end of the drought. Manufactured and horticultural exports rose for a second year, while the price of coffee recovered. The current account showed a marginal improvement in 1994, gross fixed capital formation was up, the number of employed persons outside of the rural small scale and pastoral sector grew by close to 12 per cent, reaching 3.36 million. All of this employment growth took place in the private sector as public sector employment was stagnant.

In response to the varied industrial policies and approaches of the government of Kenya, the country's manufacturing sector has also had a mixed performance over the period since independence. In the early years following independence, the manufacturing sector grew rapidly. Government policy encouraged production for import substitution and incentives favoured production for the domestic market. Production in these years was skewed toward consumer goods such as food processing, beverages, electrical appliances and machinery, paper products, printing, sugar, confectionary, and petroleum products.

Manufacturing stagnated with the rest of the economy in the early 1980s, and with the *Sessional Paper No. I of 1986*, policy was switched to one which encouraged manufacturing for export as a means to lessen the country's dependence on commodity exports and ease the foreign exchange constraints. Those subsectors with large foreign exchange requirements such as metal products have been boosted by the liberalization of trade. Those focusing largely on the domestic market found themselves facing extremely intense competition from imports, many of which are cheaper and of a better quality. Despite this change in policy, however, there has been relatively little change in the structure of manufacturing in Kenya. In terms of contribution to overall manufacturing output, food processing and beverages still dominate, and non-industrial chemicals, non-machinery metallic products and non-metallic minerals are the only subsectors with a significant contribution to manufacturing output. There has been significant growth in the export of horticulture goods as a result of the recent policies changes, however.

The new policy initiatives have also not yet had a significant effect on either the size or ownership structure of Kenyan manufacturing. The vast majority of manufacturing establishments are small, while a relatively few large establishments dominating output. Privatization has made little headway as yet. Employment in manufacturing in Kenya has increased in recent years, from just over 1 million persons in 1981, to an estimated 3.3 million in 1994, including employment in the informal sector.

Over the past 20 years, manufacturing value-added as a per cent of gross output has fallen steadily, indicating serious structural problems in the sector. But while the cost of industrial production has increased, so too has labour productivity. While still not high, it is encouraging that even in the difficult years of 1991 to 1993, the productivity of labour continued to rise. As a percentage of gross output, wage cost has declined in recent years.

The profitability of Kenyan manufacturing is not easy to determine. Most firms are privately held and are not required to publish detailed financial data sufficient to indicate their individual profitability. But measured in terms of gross profit as a percentage of total manufacturing value-added, profitability has been on the rise over the past 20 years. Individual subsectors have performed differently. For example, the profitability of the china and pottery subsector has dropped by half since 1980, while that of leather footwear has risen sharply.

As would be expected, a large portion of the investment in the country, 45 per cent, was traditionally undertaken by the public sector. Little of this, however, was ever targeted at manufacturing. Gross fixed capital formation in the manufacturing sector has varied widely from year to year, ranging from 13 per cent in 1985, to -14 per cent in 1991. In 1994, it was 16 per cent of total investment. Foreign direct investment, including reinvestment of profits is estimated at $3 billion. Little of this, however, is new investment.

Industry in Kenya is primarily located in the Nairobi and Mombasa areas. The promotion of industry in other parts of the country is a top priority of the government and several regional initiatives have been put in place.

As noted, trade liberalization in the second half of the 1980s had mixed effects on Kenyan manufacturing. From 1986 to 1990, the import of manufactured goods increased sharply, as did the import of all goods. Processed industrial goods imports nearly doubled, as did consumer goods imports. As a result the country's trade gap widened significantly. Manufactured goods have accounted for approximately 76 per cent of all imports for some time. Processed industrial goods traditionally have been the largest portion of this, 40 per cent or more.

On the export side, efforts to promote manufactured exports began to take effect in 1990 when they rose in both real value and as a percentage or total exports. Ranging from 22 to 24 per cent of total exports over the 1980s, in 1990 manufactured exports began to rise, first to 26.4 per cent in 1990 and then to 48.4 per cent by 1994. Processed industrial supplies, followed by consumer goods and then processed food and beverages are the most important Kenyan manufactured exports.

Given Kenya's dominant agricultural base, food processing and other agro-related industries have played and continue to play an important role in the country's economic and industrial development. Together they account for over 68 per cent of total manufacturing output. Over 60 per cent of the country's manufacturing establishments are agro-based enterprises. The most important of the agro-based subsectors are food processing, beverages and tobacco.

Food processing activities in Kenya include: maize milling; wheat-based baked goods; beans and pulses; some root crops; fruits and vegetables; oil-seeds; sugar and beverage crops (tea and coffee). Meat processing and dairy are also important activities based on the herding of cattle, sheep, goats and pigs. All of these activities have undergone a period of disruption due to the liberalization of trade. For example, the reduction of import duties on farm inputs and the freeing of prices of maize led to an initial increase in maize flour production, oil-seed processing, however, has dropped in the face of stiff competition from cheap imports.

Coffee and tea, are and will remain the country's primary export products and foreign exchange earners for some time. They will also remain subject to wide price fluctuations and there is little Kenya can do to protect itself against this other than keep the costs of production as low as possible and expand markets to avoid over-reliance on too few markets.

With abundant fresh and salt water resources, fish processing is one of Kenya's largest un-tapped resources. It has been estimated that current fish landings are only one-third of potential. While high transport costs and a lack of cold storage facilities and other constraints do face the subsector, given the country's need to provide food security and generate foreign exchange, the prospects for growth are very high.

Kenya's textile industry is based on both locally sourced and imported raw materials. Domestic fibres include wool, cotton and sisal. Nylon, polyester, acrylic, jute, linen and cotton are imported. Textiles are the second most important manufacturing subsector after food processing and beverages. Production centres around fabric for clothing, blankets and knitted goods. Both yarn fabrics and ready-made garments are exported.

The textile industry has been fraught with problems lately, including old and obsolete equipment, a fall in the production of local cotton, competition from imports, general mismanagement and

the imposition of new quota on imported shirts by the United States. Government policies for the future development of the sector include support to existing enterprises in the form of making available technical training, duty enforcement, promotion of small and medium garment making factories, encouragement of Export Processing Zones and Manufacturing Under Bond and continued privatization of state-owned textile enterprises.

Despite the lack of domestic oil resources, petroleum refining has been an important industrial activity in Kenya. The country's one crude refining facility was built in 1963. Since then Kenya has been a supplier of refined products to the Eastern African region. Most of the oil processed in the country is of the light low-sulphur variety (80 per cent). In fact, the processing of heavy crude is not really economical in Kenya. This is one of the sector's greatest constraints since light crude is very expensive. Decreased demand for Kenyan oil and oil products has had an adverse effect on the subsector in recent years, as has the aging of equipment.

In recent years the oil industry has also undergone a liberalization and deregulation. This has freed prices and effectively removed Kenya Petroleum Refineries' (KPR) privileged position in refining and supplying the domestic market. The future of this sector, however, will depend on new investment to upgrade existing facilities as well expanding refining capacity.

The production of non-industrial chemicals in Kenya includes chemical fertilizers and pesticides, salt, rubber, pharmaceuticals, soaps, detergents, disinfectants, perfumes and cosmetics. Chemical fertilizers and pesticides are important inputs to Kenyan agriculture and demand for them is rising sharply in the home market and in neighbouring countries. Currently there are two major producers of fertilizers in the country, one manufactures single super phosphate and one importing and blending NPK fertilizers. The biggest constraint facing the increased production of fertilizers in Kenya is the lack of locally available resources and the capital intensity of the subsector, and thus size of investment required. Pesticide production in the country is primarily limited to the formulating and repackaging of imported materials. Demand is high, however, and the subsector is likely to expand, boosted by import liberalization, the exploitation of locally available pyrethrin and the need to increase agricultural yields.

Both rubber and pharmaceutical production are based on imports and the future development of both is likely to be based on the increased exploitation of locally available resources. In the case of rubber, this has already taken the form of proposals to introduce the cultivation of rubber plants. In the pharmaceutical subsector, investment potential has been identified in development of quinine extraction facilities using Cinchona trees and their increased cultivation, as well as the extraction of hecogenin from sisal waste and the synthesis of betsmethsasone from the hecogenin. Both the local and regional demand for pharmaceuticals is strong and rising.

Most of the raw materials needed for the production of soaps are available locally. Other raw materials for the production of perfumes and cosmetics, as well as disinfectants are imported. Despite this reliance on imported goods, the subsector has diversified in recent years and has become one of the largest foreign exchange earners of the country. There are 43 firms (not including informal sector production) engaged in the production of soaps, detergents, disinfectants, perfumes and cosmetics. This is also an important subsector in terms of the current participation of small and micro enterprises and the future potential for the development of such production. Technology, especially for soaps, detergents and disinfectants, is simple and affordable and the raw materials are readily available, if not locally available.

Cement is currently the most important building material produced in Kenya. Most of the raw materials are available locally and demand is rising rapidly. The current level of technology and state of plant and equipment makes production relatively expensive, however. Limitations on the country's transport infrastructure also add to the cost of bringing Kenyan cement to the market. Given the level of demand and encouragement from the government for establishing new facilities, this subsector is set for expansion.

The raw materials for ceramics are also readily available locally and are cheap. Production currently centres on tiles and crockery, as well as sanitary ware. Output has been fluctuating

recently and the subsector is currently producing well under capacity although local production does not meet demand. Inadequate technology has kept quality low and prices high and the subsector is now facing stiff competition from cheaper, higher quality imports.

Motor vehicle assembly and automotive components have traditionally been important industries in Kenya. The assembly enterprises are dominated by three large enterprises. Two are franchises, while General Motors assembles its own vehicles. There are over 80 small and medium enterprises manufacturing and reconditioning motor vehicle spare parts. The recent liberalization of trade has had an adverse effect on the spare parts and components producers since the vehicle assembly franchise holders are now permitted to import 100 per cent completely knocked down parts.

I. THE MACROECONOMIC AND INDUSTRIAL POLICY ENVIRONMENT

A. RECENT ECONOMIC TRENDS

Economic trends pre-1990

Since gaining independence in 1963, Kenya's economic performance has been mixed. From 1963 through 1985 the country followed a policy of market economy with strong government intervention and public-sector led growth and development. Policy in the early years also focused on import substitution. From 1986, however, policy switched to one of decreased direct government presence in the economy, with government's main role being that of creating an "enabling environment" in which the private sector can flourish.

The first decade after independence (1963-1973) was characterized by rapid growth, the development of industries aimed at import substitution, favourable weather and rising agricultural income. In the period from 1973 to 1980, growth began to slow as the result of two oil crisis, deterioration in the terms of trade and generally adverse weather conditions. By the close of the 1970s it was also becoming apparent that the country faced structural problems in both its agriculture and industrial sectors. Nevertheless, for the 1963-1980 period as a whole, GDP grew at an annual average of 6.8 per cent in real terms and growth of the industrial sector averaged 9.7 per cent per year in the 1970s.

In the 1980s, the structural problems began to take their toll. The country's balance of payments deficit swelled as the terms of trade worsened further, and there was a sharp decline in international reserves. The government budget deficit reached 9.5 per cent of GDP in the 1980/1981 fiscal year.

The external current account deficit reached close to 15 per cent of GDP by 1980 and inflation hit 20 per cent in 1981. Heavy borrowing on the international market left a debt service ratio of more than 27 per cent by 1984 and 35.7 per cent in 1986. By 1982, the situation had deteriorated to the point that in that year a stabilization programme was initiated under the insistence and with the support of the IMF: fiscal policy was tightened, the shilling was devalued, interest rates were raised to positive real levels, real wages were allowed to fall and import restrictions were temporarily intensified.

The initial response to these measures was a modest improvement in economic performance, also supported by the inflow of aid from various multilateral and bilateral donors. But, by 1986, it had to be acknowledged that Kenya's economic problems were definitely structural in nature and action had to be taken to address them directly. A full reversal of policy was developed and initiated with the *Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth*. Exports, particularly value-added exports, were to be promoted in order to remove the constraint to development of a chronic lack of foreign exchange, and controls on the private sector were to be lifted in order to allow the sector to become competitive, especially in international markets, and lead the country's growth and development. Key to the success of this new approach was to be fiscal and monetary constraint on the part of the government in order to create a stable environment in which the private sector would be able to develop.

Because of the critical need to create jobs, especially in the towns, and the desire to decrease the country's dependency on cash crop exports and increase the relative value of exports through

diversification, development of the manufacturing sector was a key element of the new strategy. *Sessional Paper No. 1 of 1986* identified five strategic goals for industry:

- To help expand and diversify the manufactured export base;
- To create jobs at a rate greater than 4 per cent per annum;
- To develop the basis of high and rising productivity which would support higher average earnings for a large and growing number of workers;
- To encourage indigenous Kenyan entrepreneurs and managers; and
- To support and promote the development of agriculture and rural areas by promoting the efficient processing of agricultural goods.

Manufacturing was to be the main engine of economic growth and target output for the sector during the 1984-1988 period was set at 6.5 per cent per year rising to 7.4 per cent per annum from 1988-2000. Manufactured exports were expected to rise a real 6 per cent per year over the period, while total exports were to rise 5 per cent per year. The economy as a whole was targeted to grow at a rate of 4.8 per cent per year.

With the new role of government to create the environment in which this rapid growth in manufactured goods and especially manufactured exports could occur, the domestic and international trade regimes were liberalized significantly, the shilling was devalued further, import quotas were dropped in favour of tariffs, duties and tariffs were rationalized, and several schemes were put in place to encourage exports including new exemptions from duties on imported goods, Export Processing Zones (EPZs) and Manufacturing Under Bond (MUB) schemes. A full description of these measure is given in Section C of this chapter.

The economy responded well to these measures with growth in 1986/87 showing improvement. By 1988/89, however, the economy was faltering, not taking off, and *Sessional Paper No. 1 of 1986* targets were not met (see Table I.1).

Table I.1. Growth of GDP versus target rates, 1981/82-1989/90
(Percentage)

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
Annual GDP growth (1982 prices)	2.4	3.1	0.9	5.1	5.6	4.9	5.2	5.0	4.3
Target GDP growth rate	..	..	..	4.8	4.8	4.8	4.8	5.9	5.9
Annual per capita growth rate	-1.6	-0.8	-2.8	1.4	1.9	1.2	1.6	1.4	0.8
Per capita growth target	..	..	..	1.0	1.0	1.0	1.0	2.1	2.1

Sources: Deloite Haskins & Sells Management Consultants, Kenyan Association of Manufacturers Study, *The Present and Future Financing Needs of the Industrial Sector in Kenya,* Nairobi, May 1992; Central Bank of Kenya, and Central Bureau of Statistics.

Manufacturing growth actually turned down in 1988, a year when it was forecast to increase significantly, and in the last years of the decade, manufacturing employment declined. And, while the value-added of non-petroleum based and coal products manufactured exports rose in the 1986-1988 period, in real terms, their value fluctuated widely and they ended the period barely above their level in 1980.

Import liberalization in the second half of the decade resulted in a sharp increase in imports, especially of manufactured goods. From 1986 to 1990, the import of machinery and capital equipment more than doubled, processed industrial goods and consumer goods imports nearly doubled, and processed food and transport equipment imports were up significantly. As a result, the trade balance in manufactured goods widened significantly in both current and real terms.

Economic trends post-1990

While growth in later half of the 1980s was a vast improvement over that of the first half, an average rate of 5.9 per cent per annum, manufacturing did not take off as hoped and began to drive growth and development. After 1989, real growth slowed. It dropped to 4.3 per cent in 1990, 2.1 per cent in 1991, 0.5 per cent in 1992 and 0.2 per cent in 1993 (see Table I.2). A combination of factors are blamed for the decline, both internal and external.

First, the period was one of severe drought which decreased agricultural production as well as led to power rationing (Kenya relies heavily on hydro-electricity for power). The later affected both agricultural production and manufacturing output. Second, agriculture was also disrupted by ethnic strife, especially in 1992. A third factor affecting output was the uncertainty surrounding the 1992 multi-party elections. Heightened tensions reduced investment and the number of tourists who were also put off by the ethnic conflicts. The fourth internal factor cited is the inflow of refugees which put a strain on the country's limited resources.[1/]

External factors exacerbating the situation were a recession in many of Kenya's export markets which decreased export earnings and thus its ability to import capital goods and other inputs, and a fall in the price of coffee, Kenya's second largest export and foreign exchange earner. Investment was off 14 per cent in 1992 and inventory accumulation was down 74 per cent. The country's import capacity was also severely limited by the freezing of quick-disbursing aid (balance of payments support) in November 1991 (reversed two years later). The election year 1992, also saw serious lapses in fiscal and monetary restraint and inflation soared reaching a high of an annualized rate of 100 per cent in June 1993. Interest rates also soared, peaking at 80 per cent that same month.

By 1994, the government saw the critical need to reaffirm many of the initiatives and the general policy established in the *1986 Sessional Paper.* By the end of 1994, the Government had pushed through a wide range of reforms including the restructuring of the financial system and deregulation of the oil sector which abolished the last price controls that were still in place.

The reduction of government direct influence in the economy was speeded, foreign exchange controls lifted, and tariffs and the international trade regime further rationalized. In response to scandals in the banking sector and the insolvency of many banks, the Central Bank of Kenya (CBK) under went a shake up and many "political banks" were closed. And in an effort to increase the amount of capital available for financing development, one of the greatest constraints to the country's development, the entire financial system is under going a restructuring and liberalization (see Banking and finance below). Fiscal and monetary policies were also severely tightened.

The new and renewed initiatives have had the desired effect. The average annual rate of inflation was down to 8.7 per cent in May 1995 and the three month annualized rate was down to 4.2 per cent. Interest rates on Treasury bills had fallen to close to 14.58 per cent over the same period.

Between June and October 1994, the shilling appreciated in value from KSh56.1:$1 to KSh42.38:$1 and remained near that level until May 1995 when it dropped in value to KSh51:$1 (the currency had been made convertible in October 1993 at a rate of KSh67:$1). Foreign exchange reserves rose to equal five months import cover by May 1995. At the same time, Kenya was back on schedule repaying its foreign debt, including the clearing of a portion of accumulated debt service arrears. In 1993, Kenya's debt arrears had been rescheduled in agreement with the Paris Club of creditors.

GDP rose 3.0 per cent in 1994, and the production of agricultural goods (maize in particular) rebounded with the end of the drought. The real value added in manufacturing, however, rose only 1.9 per cent compared to 1993's rise of 1.8 per cent. The sluggish performance in this sector is attributed to the stiff competition Kenyan manufacturers are facing from imported finished goods.

The fastest growing sector of the economy was financial and business services and real estate. Growth in this sector's output registered over 6 per cent for the 1994 year, and its contribution to GDP increased to 9.6 per cent, up from 7.9 per cent in 1990. Both Barclays Bank Kenya and the Kenya Commercial Bank reported a second banner year with pre-tax earnings of KSh3.3 billion and KSh2.8 billion respectively.

Manufactured and horticultural exports rose for a second year, while the price of coffee recovered (1993 was a poor year for coffee production) and remained high. But overall 1994's export growth was well short of 1993's 111.1 per cent rise, increasing by 16.4 per cent. Domestic exports increased 15 per cent while re-exports more than doubled. Total imports rose 13.4 per cent, also well below the 71 per cent rise seen in 1993. The stronger shilling is partially responsible for the lower export rate. Commercial imports rose by 15 per cent reflecting an increase in the import of raw materials and capital goods. Overall, the balance of trade posted a 7 per cent increase in the deficit for the 1994 year.

The current account showed a marginal improvement in 1994, with the surplus increasing from $99 million to $104 million. On the other hand, the capital account weakened from a surplus of $344 million in 1993 to a deficit of $10 million in response to the lifting of exchange controls as was expected.

Gross fixed capital formation was up 14.2 per cent in 1994. Fifty-three per cent of the investment was from the private sector. Of this, 94 per cent was financed domestically, up from 79 per cent in 1992.

During the 1994/95 financial year, the number of employed persons outside of the rural small-scale and pastoral sector grew by close to 12 per cent, reaching 3.36 million. Within this sector the largest rate of growth, 22 per cent, took place in the number of persons employed in the informal sector which now totals 1.79 million. Employment growth in the modern sector was a modest 2 per cent over the period and now totals 1.5 million persons. All of this employment growth took place in the private sector as public sector employment was stagnant.

The period since 1993 also had its negative events. The price of tea, Kenya's major export good, fell sharply in 1994 dampening foreign exchange earnings. In 1993, several banks and other financial institutions were liquidated due to insolvency (see Banking and finance below). In 1994, customs officials seized 13,000 tonnes of Brazilian sugar that was being illegally imported into the country. Such fraudulent imports created a glut in the market and were depressing the price to the point of threatening a collapse of the industry. The government's reaction was the raising of import duties. There also have been allegations of dumping by several other countries following the lifting of import restrictions. Kenya Breweries Ltd. in particular, is complaining that South Africa is dumping its Castle beer on the market.

In his June 1995 budget speech, Mr. Mudavadi, the Minister of Finance, stressed that Kenya's recent growth is neither guaranteed, nor enough to meet all the challenges that the country faces. The rate of domestic savings must be raised significantly in order to support an increase in the rate of investment needed for development and job creation, calling for much more effort on the part of government to create the necessary enabling environment. In the meantime, the government hopes to decrease Kenya's reliance on foreign aid funds and loans in favour of direct foreign investment and foreign portfolio investment. Many reforms and incentives aimed at stimulating the flow of foreign investment funds have already been put in place (see Section D).

Table I.2. Selected economic indicators, 1990-1995

	1990	1991	1992	1993	1994 (Estimate)	1995 (Projected)
National income and prices (million US dollars)						
GDP at current prices	7,257	6,994	6,809	4,690	5,744	5,989
GDP at constant prices	3,657	3,159	2,691	1,498	1,595	1,795
Per capita income	327	305	287	191	204	224
Real GDP growth (percentage)	4.3	2.1	0.5	0.2	3.0	4.8
Consumer prices (percentage)						
Annual average inflation	15.8	19.6	27.3	46.0	28.8	7.2
Month-on-month (end of period)	18.2	10.5	33.7	54.7	6.6	2.1
Gross national savings (percentage of GDP)	15.4	15.7	13.8	17.2	19.4	19.7
Gross domestic investment (percentage of GDP)	24.3	21.3	17.4	18.4	20.6	20.8
Government budget (million Kenyan shillings)						
Revenue and grants	47,232	53,639	63,217	73,603	107,275	131,011
Total expenditure	55,142	65,846	70,764	93,400	135,828	145,032
Budget deficit						
Total	-7,910	-12,207	-7,547	-19,797	-28,553	-14,021
As percentage of GDP	4.3	5.6	3.1	7.0	7.1	2.9
Money and credit						
Total money supply (M2)	61,494	74,326	99,292	124,829	162,726	187,501
Reserve money	15,736	18,005	25,733	42,132	55,316	53,423
Total domestic credit	72,365	86,603	99,858	100,228	146,323	161,719
Of which: government	29,422	32,547	32,311	30,625	55,256	46,483
others	42,943	54,056	67,547	69,603	91,067	115,236
External sector (million US dollars)						
Current account	-516	-212	-98	99	104	331
Of which: exports	1,078	1,138	1,082	1,186	1,527	1,796
imports	2,205	1,940	1,835	1,493	2,051	2,452
services	611	590	655	406	420	987
Capital account	369	107	-171	344	-10	55
Balance of payments	-147	-105	-269	443	94	386
Foreign reserves	343	262	336	857	1,057	1,276
Of which:official	275	192	177	508	632	794
Months of import cover	1.5	1.2	1.2	4.1	3.7	3.9
Commercial banks and public	68	70	159	349	425	482
Foreign debt/GDP ratio	34.9	40.2	47.8	84.5	77.2	64.8
Debt service ratio (percentage of exports)	33.8	30.5	32.9	28.6	34.1	20.7
Exchange rate (KShs:$)	23.1	27.3	32.2	58.0	56.1	..

Source: Central Bank of Kenya.

One continued constraint to growth has been the slow pace of privatization and restructuring of those enterprises reserved for continued government control (see Section D). While the process of reform of the parastatals began in 1991 with the closing of several of most serious loss-making enterprises, only a few enterprises have yet to be sold and it is unlikely that the government will be able to meet its target of end 1997 for completion of the process. This will slow the generation of revenue to state coffers, as well as continue to drain state resources.

B. ECONOMIC STRUCTURE

The physical environment

Straddling the equator in eastern Africa, Kenya covers 580,367 square kilometres (224,081 square miles) of area, including 11,230 square kilometres of water. The country extends from approximately 4 degrees north, to 4 degrees south of the equator. To the north Kenya shares borders with Sudan, Ethiopia and Somalia. To the west it borders with Uganda, and the United Republic of Tanzania lies to the south.

Kenya is made up of erosional plains that rise gently from sea level to 1,500 metres, and highlands that reach altitudes of 2,500 to 3,000 metres. There are two major mountains: Mount Kenya in the mid-portion of the country which extends to 5,199 metres; and Mount Elgon in the west which reaches 4,321 metres. Kenya also borders Lake Victoria to the west, and includes Lake Turkana in the northwest. The Great Rift Valley bisects the country from north to south, running through the highlands and is dotted with small lakes and inactive volcanoes.

Because of the variation in altitude, the range of climatic conditions is dramatic. The highlands above 1,500 metres have a temperate climate, but temperatures drop so low as to limit cultivation above 2,750 metres. Average temperatures at sea level are 26 degrees Celsius, and decline an average of 1.7 degrees for each 300 metre rise above sea level.[2/]

The most critical climatic factor effecting the country is rainfall, or the lack thereof. Only some 15 per cent of Kenya receives adequate rainfall for cultivation, estimated at 750 millimetres in four of five years. Rainfall is greatest on the coast, in the western portion of the country near Lake Victoria and in the highlands. The vast plains below 1,200 metres are arid or semi-arid lands. The rains come to the western portion of the country in one long rainy season, while in the east there are two periods of rain, the long rains in March-May and the short rains in September-October.

Because of the wide variation in climatic conditions, land use patterns in Kenya are distinct. Forests are restricted to the upper levels of the highlands which receive the most rainfall and plantations of conifers and wattle are limited to that area. Crop cultivation is carried out in the highlands and livestock raising is primarily located in the dry plains.

Demographic base

As of 1990, Kenya's population was 22.7 million. The vast majority of these people are African, with only small minorities of Arabs and Asians. Over the decade of the 1970s, large numbers of Asians emigrated from the country. Few Europeans still remain in Kenya. Kiswahili is the official language, although English is generally understood.

Most Kenyans continue to follow traditional African religious beliefs but there is a large Christian community centred around the Anglican and Roman Catholic faiths. Islam is also practised by a sizeable minority, mostly of Arab ancestry, and has a dominant influence in the coastal areas where most Muslims live.

While the population density is 36.7 per square kilometre, close to 75 per cent of the population lives on only 10 per cent of the land. In 1990, 15 per cent of the population lived in urban areas (primarily the largest cities of Nairobi, Mombasa and Kisumu). The non-African population is concentrated in the urban centres.

Kenya's population centres are concentrated in the southern portion of the country and along the coast. According to the 1989 Census, the major cities are:

Nairobi	1,346,000	Meru	78,100
Mombasa	465,000	Thika	57,100
Kisumu	185,100	Kitale	53,000
Nakuru	162,800	Kisii	44,000
Eldoret	104,900	Kericho	40,000
Nyeri	88,600	Malindi	35,200

While the rate of increase of Kenya's population is dropping due to a decrease in fertility rates,[3/] Kenya continues to have one the highest rates of population growth in the world, at an average of 3.5 per cent per year during the 1980s. Projections for this decade are for growth to fall to an annual average of 2.7 per cent and to an annual average of 2.2 per cent in the first decade of the next century. By 2010, Kenya's population will be more than twice the level in 1980 (see Table I.3).

Table I.3. Projection of population to the year 2010
(Thousand)

	1980	1990	2000	2010
Total population	16,670	22,753	29,706	36,898
Growth rate (percentage), end of period	3.5	2.7	2.2	
Female	8,390	11,399	14,855	18,461
Male	8,280	11,354	14,851	18,437
Rural	14,170	18,727	22,755	25,581
Percentage share, end of period	85	82.3	76.6	69.6
Urban	2,500	4,026	6,951	11,2217
Percentage share, end of period	15	17.7	23.4	30.4

Source: Republic of Kenya, *Sessional Paper No. 1 of 1994.*

As a result of the rapid rate of growth, close to 60 per cent of Kenya's population is 20 under years of age. This poses a special problem for the country in combating unemployment. Youth traditionally have a higher unemployment rate than other portions of the labour force, and with such a large percentage of young and inexperienced people entering the job market, it is expected that most will have to create their own employment in the informal and agricultural sectors.

Not only does the rate of growth create a great challenge for the economy in the creation of jobs, the situation is exacerbated by the rapid urbanization of the population. Table I.4 presents the distribution of urban population in 1989. During the 1980s the urban population grew by an annual rate of 5 per cent, versus the country average of 3.5 per cent. Growth in the urban areas is expected to remain well above the national average and it is estimated that by the year 2010, over 30 per cent of the population will be in urban areas. In the 1980s, 25 per cent of the growth in the population was urban dwellers, and by 2010 that rate is expected to have reached 50 per cent.[4/]

Within the urban areas the fastest growing segment was the Town Councils (average size 12,000). But the large cities (average population 48,000) are also growing rapidly. The need for upgrading and extending infrastructure and services in the urban areas is pressing, at the same time the country faces the need to provide such services to the remote areas.

Table 1.4. Distribution of urban population in 1989

Region	Total (Thousand)	Percentage share of total	Average size	1979-1989 Growth rate (Percentage)	Total increase (Thousand)	Percentage share of increase
Municipalities:						
Nairobi	1,346	36.0	1,346	5.0	518	36.4
Mombasa	465	12.4	465	3.1	124	8.7
Other	1,240	33.2	48	4.3	424	29.8
Subtotal	3,051	81.7	109	4.4	1,066	74.9
Other urban areas:						
Town Councils	263	7.0	12	9.1	153	10.7
Others	422	11.3	6	6.8	204	14.3
Subtotal	685	18.3	7	7.6	357	25.1
Total urban	3,736	100.0	31	4.9	1,423	100.0

Source: Republic of Kenya, *Sessional Paper No. 1 of 1994.*

Agriculture, forestry and fishing

Agriculture

While Kenya has an industrial and tourism base much more developed than that of many sub-Saharan countries, agriculture continues to dominate the economy accounting for 25 per cent of GDP in 1994. Agricultural goods, coffee, tea and horticulture, are also the country's primary foreign exchange earners, together accounting for about 60 per cent of exports. Agriculture also employs approximately 70 per cent of the labour force and agricultural land is home to approximately 85 per cent of the population. As a result, the promotion and growth of the sector are critical to the future of Kenya and its development.

Of a total land area of 56,914,000 hectares, over 52 million hectares are classified as agricultural land. Over 42 million hectares of this, however, is classified as having low agricultural potential.[5/] This area is primarily arid and semi-arid lands (ASALs). Close to 7,000 hectares are classified as high potential for agricultural production and just over 3,000 are in the medium classification. Only 52,000 hectares are currently irrigated, although the potential for irrigation is believed to be some 540,000 ha.

Because of the low level of irrigation, much of Kenya's agriculture is extremely susceptible to drought. For example, in recent years output was depressed by bad weather and drought in 1983, 1984, 1987, 1989, 1990, and especially in the 1991-1993 period when there was a severe drought. The value of Kenya's agricultural output is also effected by external booms and busts. Coffee and tea in particular, are the victims and beneficiaries of world production and price movements.

As well as coffee and tea, Kenya's main cash crops include sugar cane, maize, wheat, sisal, pyrethrum and cotton. The country is the third largest producer of tea and second largest producer of sisal, after Brazil. The production of this crop has fallen steadily since its peak production of 86,526 tonnes in 1974. In 1992, sisal production was only 34,148 tonnes. Sisal is produced mainly on large estates, the number of which has fallen dramatically from 60 in 1954, to just 19 presently.

Another crop that has suffered recently is cotton. While the production of cotton increased steadily during the 1970s, it began to founder in the 1980s. Cotton requires large amounts of water and is thus particularly susceptible to drought, and tends to be produced on larger plots. Production has also been hampered by a poor marketing and payments system, and low prices.

In 1971, the Kenya Sugar Authority was established to promote sugar production and processing. By 1980, the country was running a surplus in sugar of 150,000 tonnes (domestic demand was 275,000 tonnes). By the late 1980s, however, the domestic demand for sugar had risen sharply and the country was importing significant quantities. In the 1989-1991 period, cane harvests reached record levels, peaking at 532,000 tonnes, but by 1992 production was down to 372,253 tonnes.

Sugar production in Kenya has been fraught with problems. First, despite the record harvest, in the early 1990s, Kenyan sugar was being smuggled into Uganda at such a rate that shortages were arising in the home market. Then by 1995, illegal imports of sugar into Kenya created a glut in the market that was so severe it threatened to precipitate a collapse and the loss of 13,000 jobs.[6/]

Kenya currently supplies 65-70 per cent of the world market in pyrethrum and has some 30,000 hectares under cultivation. Pyrethrum is produced mainly by cooperatives. Future production is threatened, however, by declining world demand.

Horticulture has become the new growth area for Kenyan agriculture and is also a significant and growing source of foreign exchange. Fresh flowers, fruits and vegetables are air-freighted to Europe and the Middle East. Except for pineapples, vegetables and fruits are grown by small-farmers. Cut flowers are produced by two large firms. The sector has high potential but has been hampered by a shortage of airfreight space and poor handling and storage facilities at the airports.

Maize is the country's primary food crop. Once again, production is susceptible to weather conditions, especially drought. In years of severe drought, the country has to import to meet its food requirements. As the critical crop in the country's food security programme, maize is now stockpiled for emergencies. In 1984 and again in 1992, Kenya faced serious shortages of food. During periods of drought the consumption of maize increases as the availability of other food stuffs decreases. Kenya has never been self-sufficient in wheat and continues to import some 30 per cent of its consumption.

Livestock and dairy production are important both for local consumption and for export. Livestock activities are mainly concentrated on the arid and semi-arid lands and centres around the herding of cattle, sheep, goats and pigs. Cattle and dairy products are the most important components of livestock production in terms of monetary value.

From 1980 to 1990 the number of slaughtered cattle and calves rose from 310,000 head to 828,000 head. The number of slaughtered sheep and goats rose from 108,000 head to 1.2 million head and the number of pigs climbed from 53,000 head to 84,000 head. From 1982 until 1990, milk production increased from 260,000 litres to 392,300 litres.

As part of its overall reform policy, the government has liberalized the agricultural sector in recent years ending the monopolies previously held by most of the commodity boards. Dollar sales at the Mombasa coffee and tea auctions have also been established. The National Cereals and Produce Board monopoly on maize imports has been abolished, as have restrictions on the movement of maize across district boundaries. However, when it appeared that the variable duty system on agricultural goods was being circumvented in early 1995, authorities placed a nine-month ban on the importation of maize, wheat, milk and sugar.

Forestry

Kenya has relatively few forest resources with only 1,690 thousand hectares of natural forests (1990), including 204,000 hectares of grasslands, 943,000 hectares of closed forest, 339,000 hectares of woodland, 150,000 hectares of bamboo and 47,000 hectares of mangroves. Most of these natural forests are located in the mountain areas and are classified as protected areas.

Generally, forests have been the source of fuel, building materials, tools, medicine and forage for domestic animals. Only in recent years have they been used as the base for wood-based industries. In 1992, the total area under forestry plantation was 159,000 hectares and was composed mainly

of exotic softwoods (80 per cent). Exotic hardwoods cover about 14,000 hectares, while indigenous hardwoods and industrial softwoods cover another 8,600 hectares.

Fishing

In 1992, it is estimated that the total fish production of 198,000 tonnes was only one-third of its potential. With significant fresh and salt water resources, the potential exists to develop fishing as both a source of cheap protein for local diets and as an export commodity. Lake Victoria alone accounted for over 94 per cent of the fish catch in 1994, indicating the vast underutilization of marine resources in particular. The country's fish farming potential is also estimated to be great at 50,000 tonnes per year.

Mining and energy

Mining

Kenya has little in the way of exploitable mineral resources although exploration continues to take place. Soda ash is currently the country's primary mineral product (see Table I.5) and is the leading mineral export. The ash is mined at Lake Magadi in the Rift Valley.

Table I.5. Mineral production, 1990-1994

	1990	1991	1992	1993	1994[a/]
Mineral (tonnes)					
Soda ash	231,900	219,500	181,330	216,890	224,200
Fluorspar	80,529	77,402	80,360	78,725	89,155
Salt	70,318	72,402	72,494	74,669	75,757
Limestone products[b/]	35,733	32,017	30,656	30,349	30,469
Other	39,388	39,963	40,150	40,553	40,934
Total	457,868	441,331	404,990	441,186	460,515
Value - (thousand KSh)					
Soda ash[c/]	34,900	42,453	48,425	69,514	88,299
Fluorspar[c/]	8,018	7,849	8,117	14,000	13,422
Salt	3,938	4,057	4,426	5,400	5,644
Limestone products	1,556	1,394	1,449	1,536	1,483
Other	1,951	1,979	2,029	2,090	2,129
Total	50,363	57,732	64,446	92,540	110,977

Source: Republic of Kenya, Central Bureau of Statistics.

a/ Provisional.
b/ Excluding input to cement production.
c/ Excluding export value.

Other mining activity centres around the extraction of small amounts of gold, salt and limestone. One fluorspar deposit in the Rift Valley has been exploited since 1975 and produced 89,155 tonnes in 1994. Smaller-scale extraction activities include the mining of vermiculite and gem stones (rubies).

Deposits of garnet crystals have been discovered at Tsavo and have received high valuations. The region promises to bear several other minerals as well. Already identified are deposits of apatite, graphite, kaolin, kyanite, rubies, topazes, green tourmaline and tsavolite. Exploration for copper, nickel and chromite in the Kerio Valley is also being undertaken.

Oil exploration began in Kenya in the 1950s and has continued to take place intermittently both on land and offshore. There has been little success to date, however. In 1984, Kenya passed the Oil Exploration Act, under which foreign companies can participate in Kenyan oil and gas development on a production-sharing basis. Concessions have been taken by such international giants as Amoco (United States), Campaigne Francais des Petroles/CFP-Total (France), Marathon Oil Co. (United States), Mobil Oil (United States), Fina (Belgium), Texaco (United States), Shell Exploration (Netherlands) and Petro-Canada (Canada). In recent years only one well (out of more than 20) has shown traces of oil and gas. It is the remote northwest region of Turkana.

Energy

With no currently exploitable deposits of oil, gas or coal, petroleum is imported and refined by the Mombasa-based Kenya Petroleum Refineries (KPR) which operates the country's only refinery. While an estimated 70-80 per cent of domestic energy requirements are met by wood fuel sources, the critical industrial and transport sectors rely on oil. In fact, oil-based fuels account for 80 per cent of commercial energy use. Refined oil products accounting for 36 per cent of crude oil imports,[7/] however, are a traditional export of Kenya to neighbouring landlocked countries, representing the country's fourth largest foreign exchange earner. (See External trade and payments below.)

Between 1972 and 1992, Kenya's annual consumption of petroleum fuels rose from 1,193 thousand tonnes to 1,839 thousand tonnes, while the consumption of liquefied petroleum gas rose from 10,000 tonnes to 27,000 tonnes. The process of urbanization and a drop in the use of charcoal has also led to significant increase in the amount of kerosene consumed. In 1972, 52 thousand tonnes were used while by 1992, that figure had risen to 175 thousand tonnes.

The demand for oil-based fuels is expected to rise 1.1 per cent per annum over the 1995-1996 period and continue to rise as the economy returns to a path of growth and development. To meet the continued rise in demand, the government intends to encourage further exploration of domestic sources by international companies and consortiums, as well as promote the development of alternative sources for commercial use such as solar, bio-gas and wind.

Since 1990, two major changes in oil prices have taken place. The first was the result of the introduction of the Road Maintenance Levy (see Transport and communication below) under which a special tax was added to the retail prices of various petroleum products in an effort to raise funds for the rehabilitation and extension of the country's road network. The second change in prices was the result of the liberalization of prices in October 1994 that took place as part of the deregulation of the oil sector under the government's broad policy of removing itself from direct participation in the industrial sectors. As a result of this move, the retail prices of premium and regular motor gas increased slightly (2.5 per cent and 0.6 per cent respectively), while the retail price of gas oil, declined 7.9 per cent.

Along with the liberalization of prices, restrictions on the supply of imported petroleum fuel were lifted when the energy sector was de-controlled. Since October 1994, oil firms have been able to import and set prices freely and the privileged position of Kenyan Petroleum Refineries and the National Oil Company of Kenya to import 30 per cent of the country's crude requirements ended. At the same time the Kenya Pipeline Company lost its monopoly rights to the transport of all oil products from Mombasa to Nairobi and on to Kisumu (to which its pipeline was recently extended).

Not all government influence has been removed, however. Because there were no facilities for the handling of imported LPG, local refineries have been required to process a minimum amount of oil into LPG. This requirement is to be lifted when storage and handling facilities are in place.

The primary source of electricity is the hydroelectric plants (five major stations) in the Tana River basin and the geothermal station at Olkaria. Uganda supplies the country with 30 MW per year from its Owen Falls plant under a 50-year agreement signed in 1958. As is the case with

petroleum and gas based fuels, the consumption of electricity has also risen sharply in last twenty years, yet only 10 per cent of Kenyan households were electricity consumers in 1993. Over the 1972-1992 period, the generation of hydro-electricity increased fivefold. Geothermal generation declined, however, due to the high cost of maintaining and running such plants.

Manufacturing

While growing rapidly in the early years after independence, manufacturing has stagnated since the 1980s and its contribution to GDP has actually dropped slightly from roughly 12 per cent in the early 1980s to 10.5 per cent in 1993 and 1994 (in real terms the share of manufacturing rose over the period from 13 to 13.6 per cent). As noted above, this is despite the fact that manufacturing was supposed to be the principal driving force of economic growth and development in the 1980s and 1990s.

Within the manufacturing sector the most important subsectors in value terms are food processing, petroleum and chemical products, metals and machinery. In terms of employment, the food processing industry also leads, followed by metals, machinery and transport equipment, and textiles (primarily cotton-based). Kenya has fairly well-developed auto parts industry and has three auto-assembly plants that assemble both commercial and passenger vehicles. Major foreign investment has been made in several manufacturing sectors including: motor vehicle assembly, chemicals, tobacco, shoes, pharmaceuticals, beverages and food processing.

The majority of Kenya's manufacturing concerns tend to be small in size with less than 50 employees. In 1990, of the 2,002 manufacturing establishments (locations versus companies) in the country, only 612 were of a size greater than 50 employees. Three hundred and sixty establishments had between one and four employees, 231 has between five and nine employees, 312 had ten to 19 employees, and 326 employed between 20 and 49 persons. The majority of employment, on the other hand, does take place in the larger establishments. In 1990, of the total 187,203 persons employed in the manufacturing sector, 166,276 worked for establishments employing more than 50 employees.

Disappointed with the past performance of the sector, the Development Plan for 1994/96 re-affirmed the need to liberalize the sector and pledged to continue on the path of economic reform and restructuring which was begun, with varying amounts of commitment, in the mid-1980s. Prices have been decontrolled further, restrictive foreign exchange regulations have been abolished, import licensing has been eased and reform of the financial sector has begun with the hopes that by easing the credit constraint, investment in manufacturing will increase. Several incentives aimed specifically at promoting investment in manufacturing have been put in place as well, such as manufacturing under bond schemes and the exemption from import duties for capital equipment and investment goods. Full details of the development of the manufacturing sector and the government promotion schemes are given in Chapter II and in Section D of this Chapter.

Transport and communications

Transport

Kenya's transport sector is centred on road, rail and air systems. In 1992, the national road system consisted of 8,621 kilometres of paved roads, 26,092 kilometres of gravel roads and 28,406 kilometres of dirt roads. The rail system consists of 2,709 kilometres of rail lines. The country has two international airports, Nairobi's Jomo Kenyatta and Mombasa's Moi International Airport, as well as several smaller facilities in various parts of the country (plans to build a third international airport appear to have been at least temporarily scrapped). Kenya also has a pipeline running from the coast west to Uganda and to Kisumu on Lake Victoria.

Anyone who has driven through Kenya can only agree with government's assessment that the road system has not been maintained and that it is grossly inadequate to support the level of development and increased activity they are hoping for in the future. A strategy for upgrading, repairing and extending the road system is now in place. Its primary financing component is the Road Maintenance Levy on motor fuels which replaces the old system of tolls.

New enforcement measures have also been initiated to control the axel-load on the road system. The recent completion of a section of the oil pipeline in the Eldoret region has provided some relief already by easing road tanker traffic and it is hoped that increased efficiency and capacity of the Kenya Railways (expected as the result of its restructuring that is currently under way) will further ease the burden on the country's road system.

Kenya Airways and its freight handling subsidiary, Kenya Airfreight Handing Ltd. are the country's major airlines. Both are currently state-owned but on the slate to be privatized. The role of air transport has grown considerably with the number of passengers going through the two main airports reaching 2.6 million in 1992. Passenger traffic within the country is also important as more and more tourists participate in "flying safaris" and multiple destination holidays.

The expansion of the air system has also included the shipment of high-value perishable items, particularly horticultural goods. Demand for these services continues to outstrip supply, however, and there are many problems associated with inadequate refrigeration facilities at the airports and the poor handling of goods in general. It is hoped that privatization will improve, as well as expand these services.

The Kenyan rail system, consists of one main line running west from the coast through Nairobi with connecting lines to points in Uganda and the United Republic of Tanzania. As of 1992 there were 586 locomotives. Kenyan Railways has been plagued with problems and has generally not been competitive with other modes of transportation, especially commercial road transport. A restructuring of the company is currently being undertaken with the hopes of increasing efficiency and, as noted, drawing heavy freight traffic from the over-burdened road system.

Communications

While few Kenyans within, and almost none outside of the major urban areas, have access to telecommunications, international links are generally good. Since 1977, telecommunications and postal services have been provided by the Kenyan Post and Telecommunications Corporation (KPTC). Those two services are now to be separated and all but the core services which relate to national security are to be privatized.

Table I.6. Projected domestic telecommunications network, 1990-1996

	1990	1991	1992	1993	1994	1995	1996
Telephone exchanges							
Automatic and manual	415	459	468	478	532	617	715
ISD	104	119	165	171	138	160	185
Digital	57	90	167	116	104	121	140
Telephone capacity							
Automatic and manual	227,870	286,740	334,360	387,858	332,000	385,000	447,000
ISD	175,000	231,500	281,560	335,058	268,540	311,506	361,347
Digital	48,000	127,200	150,300	203,798	147,000	71,000	198,000
Connections							
Automatic and manual	183,340	200,220	207,442	349,072	232,000	269,000	312,000
ISD	182,040	199,020	235,529	301,552	230,863	267,801	301,649
Digital	26,283	56,308	71,415	183,418	65,000	75,000	87,000
Telephone stations							
Automatic and manual	383,116	407,697	420,567	423,332	473,000	49,000	637,000
Public call offices	5,135	5,521	5,907	5,916	6,450	..	8,600

Source: Republic of Kenya, *Development Plan 1994-1996.*

Between 1987 and 1991, growth in telecommunications provision was strong with the number of exchanges increasing an average of 9 per cent per year. The increase in international and subscriber dialling (ISD) was 11 per cent per year. Projections in the 1994-1996 Development Plan are for a return to strong growth (see Table I.6) and investment will continue to increase until the restructuring and privatization of KPTC is completed.

Banking and finance

The development of the financial sector in Kenya has gone through two distinct phases. In the post-independence years of the 1960s, there was a rapid monetization of the economy, measured by the ratio of the money supply to GDP. At the same time there was also a rise in financial intermediation, measured by a decrease in the proportion of the money supply accounted for by currency emissions. In the 1970s and 1980s, a significant diversification of the financial system occurred. Not only did the number of commercial banks grow, the number of non-bank financial institutions (NBFI) rose and both banks and NBFIs developed extensive branch networks. The ratio of broad money to GDP stood at 37.8 per cent in 1989, compared with 50.7 per cent and 60.6 per cent in Zimbabwe and Mauritius respectively.

Table I.7. Relative financial depth, 1989
(Ratio of broad money to GDP)

Kenya	37.8
Ghana	13.9
Côte d'Ivoire	30.5
Zimbabwe	50.7
Mauritius	60.6
Germany (FRG)	64.3
United States	66.2

Source: Deloitte Haskins & Sells Management Consultants Ltd, *The Present and Future Financing Needs of the Industrial Sector in Kenya,* May 1992.

As of mid-1995, Kenya's financial sector consisted of the Central Bank of Kenya, responsible for the supervision of the commercial banking and financial sector, as well as the country's monetary policy, 37 commercial banks (including several partly or wholly foreign-owned), five building societies, the Post Savings bank, 43 non-bank financial institutions (including three re-insurance companies) and an active stock exchange.

Kenya has recently entered a new phase of financial sector development precipitated by the natural growth process, as well as a series of past abuses. Financial intermediation through banks and non-bank financial institutions is the way an economy efficiently channels its savings to investment. A major study conducted by the management consulting firm Deloitte Haskins & Sells and African Development and Economic Consultants Ltd. for the Kenya Association of Manufacturers in 1992,[8/] concluded that the greatest constraint facing the future expansion and development of Kenyan industry was a lack of capital. Several suggestions for reform of the sector were put forth as a way to ease some of that constraint.

At the same time that this study was being conducted and presented, the stability of the financial system and the ability of the Central Bank to regulate it was called into question. In 1989, the Banking Act was passed which consolidated all existing banking and financial legislation and tightened the CBK's regulatory authority over the sector. In 1991, however, a revision was made to the act that allowed the minister of finance to exempt certain banks from those controls. By 1992, this revision was already resulting in serious problems. Two local banks (the Trade Bank and the Pan African Bank) were forced into insolvency and ultimately to close due to non-performing loans. Examination of the banks' portfolios revealed an extremely high level of

"political" lending. The crisis deepened in 1993, when two further banks (the Exchange Bank and the Postbank Credit) collapsed also due to irregular and highly political lending practices.

A full audit of the banking sector was ordered (at the insistence of the IMF) and before it was over 12 financial institutions were liquidated and placed under the control of the Deposit Protection Fund. The regulatory practices of the Central Bank were strengthened, the Bank's governor was replaced and the 1991 revision to the Banking Act was repealed.

Also as part of the reform measures aimed at limiting abuses, the commercial bank cash ratio was raised from 18 per cent to 20 per cent and a reserve ratio is being placed (progressively) on non-bank financial institutions. NBFIs also are being strongly encouraged to either convert into banks or merge with one. In fact, ten applied for licenses to convert but only four had done so at mid-1995. Two other institutions have chosen to convert to mortgage finance companies.

Reform efforts aimed at increasing the efficiency of the financial system and increase the capital available on a longer term basis[9/] also have been undertaken in recent years. Interest rates have been completely liberalized, foreign exchange regulations have been abolished, foreigners have been permitted to borrow locally and the amount of investment permitted by foreign institutions of the Nairobi Stock Exchange has been increased. As of January 1995, foreign residents were permitted to purchase up to 20 per cent of the shares of a new or existing issue, with any single investor allowed to purchase 2.5 per cent. In June these limits were raised further to 40 per cent and 5 per cent respectively.

The Nairobi Stock Exchange (NSE) was established in 1954 as a limited liability company licensed by the Capital Markets Authority (CMA), which is charged with its oversight. It is one of the oldest exchanges in Africa. The NSE has a capitalization over $1.5 billion and trades the shares of over 70 corporations as well as government securities. In 1994, seven new shares were registered on the Exchange and one insurance company de-registered.

The CMA is currently looking into the creation of a second tier market with easier registration requirements. It is hoped that this market would serve as a source of venture capital to start up businesses that do not have an established track record. The CMA, together with the Central Bank of Kenya, is also working on the promotion of a secondary market in debt securities which would allow for the efficient workings of open market operations by the CBK and greatly expand its influence on domestic liquidity.

Although treasury notes and bills have been issued for several years now, the lack of a working secondary market in government securities has limited the effectiveness of open market operations. As a result, the CBK still relies heavily on changes in the statutory cash ratio and the manipulation of the re-discount rate and credit available through overnight lending facilities to pursue its monetary policy.

Despite the troubles experienced by several banks and other financial institutions in the 1992-1993 period, the financial sector has seen strong growth and healthy profits. In 1994, Barclays Bank Kenya posted pre-tax earnings KSh3.3 billion, up 51 per cent over 1993. The Kenya Commercial Bank, the country's largest bank, increased its profits 48 per cent over 1993's level, reaching a pre-tax figure of KSh2.8 billion.

Trade and tourism

Kenyan tourism, centred around its vast wildlife and beautiful coastal resources, is also its largest producer of foreign exchange with gross receipts at $421 million in 1993, accounts for about 14 per cent of GDP and is a large employer. In recent years, however, the number of tourists to Kenya appears to have peaked in the 500,000-600,000 range. In 1964, the number of tourists to Kenya was 65,400.

To encourage increased development and growth of the sector, new initiatives are being made to develop the high level eco-tourist market and multi-destination packages. One part of this includes

discussion with neighbouring "game-viewing" countries to ease the regulations regarding border crossing, as well as undertake regional efforts in wildlife management and protection.

At the same time, the luxury tourist market is being developed and methods to accommodate and promote mass tourism are to be explored. Kenya is also hoping to develop its domestic tourism through such efforts as promotion of budget hotel facilities.

In recent years, the tourism sector has faced the problem of recession in the developed markets from where it draws its tourists, as well the discouragement of travel to Kenya due to ethnic strife in one of the prime game viewing regions. In the future, Kenya will also meet stiff competition for wildlife and beach holiday tourist from South Africa, which can also offer a developed infrastructure to international visitors. The problem of competing demands for limited land between the country's increased population and food requirements and its foreign exchange generating wildlife will also be an issue that needs to be faced.

The demand structure of GDP

A close look at the structure of Kenya's real GDP in 1982 prices shows relatively little change over the past 15 years in its components. Since 1980, the share of agriculture in GDP has fallen modestly from 30.3 per cent to an estimated 25 per cent in 1994. Building and construction has also dropped from 4.7 per cent in 1980 to 2.5 per cent in 1994. Over the same period of time manufacturing rose only a disappointing 0.6 percentage points from 13 per cent in 1980 to 13.6 per cent in 1994 and tourism-related services, mining activity, electricity generation and fishing activities have all remained constant.

The growth sectors (albeit modest growth) have been in financial and business and other services. Financial services (including real estate, insurance and other business services) has jumped from just 6.3 per cent of GDP in 1980 to 9.6 per cent in 1994. Other services rose from 2.1 per cent in 1980 to 3.4 per cent in 1994. The ownership of dwellings also rose modestly over the period from 4.6 per cent in 1980 to 5.4 per cent in 1994.

On the expenditure side, consumption has remained 82-85 per cent since the early 1980s. The private sector component of consumption grew steadily in the 1980s, rising from just over 60 per cent of total consumption in 1983, to a peak near 68 per cent in 1989. Private consumption dropped as total consumption fell, to just over 62 per cent in 1993. Private sector gross capital formation rose sharply that year.

Gross investment has also remained a fairly steady 18-21 per cent of GDP over the 1980s, but dropped dramatically in the 1990s to a level of just over 13 per cent in 1993 (in current terms this share dropped from close to 12 per cent in the early 1980s to just 10.5 per cent in 1994). The private sector share in gross fixed capital formation changed little during the 1980s, but dropped to 50.8 per cent in 1990, from its 1980 level of 57.15 per cent. Since then, however, it has climbed back to a level of 60.38 per cent in 1993.

Domestic savings collapsed in the late 1980s, dropping from over 18 per cent in 1983, to just under 15 per cent in 1987 and 13.5 per cent in 1989. In the 1990s, the rate recovered somewhat, but has been volatile. Investment has continued to outstrip domestic savings and Kenya has relied heavily on outside aid and loan funds for financing.

External trade and payments

As noted earlier, Kenya's primary exports are agricultural goods and agro-industry based goods. In 1993, food and live animal exports accounted for 8.5 per cent of total exports, while beverages (including coffee and tea) made up 43.2 per cent (see Table I.8). Coffee alone accounted for 14.9 per cent of exports, and tea made up 25.4 per cent of the total. Horticultural goods accounted for a further 10.6 per cent.

Table I.8. Value of merchandise exports, 1983-1993, selected years
(Thousand KSh)

	1983	1989	1993
Domestic exports			
Food and live animals	85.2	136.0	315.7
Maize, unmilled	12.2	15.6	0.3
Pineapples, canned	20.9	37.1	96.8
Beverages and tobacco	286.5	482.9	1,588.9
Coffee, unroasted	160.1	203.8	551.5
Tea	123.4	271.9	993.7
Crude materials, inedible (excluding fuels)	48.2	90.7	329.3
Sisal fibre and tow	12.1	16.3	35.9
Mineral fuels	134.5	118.6	369.0
Animal and vegetable oils and fats	0.9	2.3	17.9
Chemicals	27.5	58.3	162.5
Manufactured goods[a/]	47.7	101.8	533.6
Cement	21.8	11.0	65.0
Machinery and transport equipment	2.5	9.3	27.0
Other exports	0.2	0.1	281.4
Total domestic exports	633.1	999.9	3,625.2
Non-oil exports	498.6	881.2	3,256.2
Horticulture	17.5	112.1	390.2
Re-exports	19.1	19.9	53.0
Food (excluding manufactured)	4.8	0.6	1.3
Machinery and transport equipment	8.3	12.7	29.6
Total exports	652.2	1,019.8	3,678.3

Source: Republic of Kenya, Central Bureau of Statistics.

a/ Excluding chemicals, processed food, machinery and transport equipment

Mineral fuels accounted for 10 per cent of exports and manufactured goods (excluding fuel, food processing, and machinery and transport equipment) were 9 per cent of total exports.

Imports are dominated by mineral fuels at 25 per cent in 1993, and machinery and transport equipment at 23 per cent (see Table I.9). Chemicals accounted for 19.7 per cent of imports, and manufactured goods (excluding processed food and chemicals) was 14.6 per cent. A full 23 per cent of all imports in 1993 were capital goods.

Regional trade is extremely important to Kenya, with Africa accounting for 44.58 per cent of all its exports in 1993 (see Table I.10). Uganda is its single biggest export market, taking 12.7 per cent of total 1993 exports. The United Republic of Tanzania follows as the second largest of the African-based markets absorbing 10.6 per cent of exports.

The European Union (EU) is the second largest market for Kenyan exports at 31.88 per cent of total exports in 1993. Within the EU, the United Kingdom is the most important single market absorbing 11.59 per cent of total exports in 1993 and is, in fact, Kenya's second largest export market in the world. The United Kingdom is followed by Germany which accounted for 7.77 per cent of 1993 exports.

Table I.9. Value of merchandise imports, 1983-1993, selected years
(Thousand KSh)

	1983	1989	1993
Food and live animals	38.2	74.0	300.9
Beverages and tobacco	2.1	5.4	28.1
Crude materials, inedible (excluding fuels)	26.3	59.3	147.8
Mineral fuels	333.5	355.4	1,275.8
Animal and vegetable oils and fats	45.9	71.2	190.8
Chemicals	126.6	353.5	994.1
Manufactured goods[a/]	103.8	351.6	736.0
Machinery and transport equipment	204.4	879.9	1,167.4
Miscellaneous manufactured articles	24.7	83.5	215.4
Other miscellaneous imports	-	5.3	14.5
Total imports, cif	905.6	2,239.0	5,056.4
Non-oil imports	572.1	1,883.6	3,780.6

Source: Republic of Kenya, Central Bureau of Statistics.

a/ Excluding chemicals, processed food, machinery and transport equipment.

Table I.10. Direction of trade, 1993 and 1994
(Thousand KSh)

	Imports			Exports	
Country	1993	1994	Country	1993	1994
European Union	1,746.5	1,936.4	European Union	1,320.2	1,365.5
of which:			of which:		
United Kingdom	602.4	757.6	United Kingdom	590.2	496.6
Germany	361.5	357.6	Germany	267.8	332.7
Middle East	1,152.0	885.8	Netherlands	145.7	182.0
of which:			Africa	1,274.5	1,909.1
United Arab Emirates	759.1	643.6	of which:		
Far East and Australia	949.0	1,393.5	United Rep. Tanzania	270.5	454.8
of which:			Uganda	326.0	544.3
Japan	383.0	496.8	Zambia	8.5	8.9
India	136.5	217.1	Far East and Australia	446.9	407.2
Australia	12.8	17.3	of which:		
Africa	121.6	790.9	Japan	33.4	33.3
Of which:			India	29.6	25.7
United Rep. Tanzania	24.4	54.5	Australia	12.8	16.2
Uganda	16.0	9.3	Middle East	105.0	74.3
Zambia	17.6	7.1			
United States	293.4	381.6	United States	137.2	146.8

Source: Republic of Kenya, Central Bureau of Statistics.

The Far East and Australia together make up 11.31 per cent of Kenya's total export market. The United States accounted for only 3.4 per cent of total 1993 exports.

In terms of imports, the European Union is the largest market providing 33.6 per cent of all 1993 imports. The United Kingdom was the single largest source for imports at 13.17 per cent, while

Germany provided 6.2 per cent. Total African-sourced imports were only 13.7 per cent in 1993, with the United Republic of Tanzania as the primary African market at 0.9 per cent.

Imports from the Middle East, largely crude oil, accounted for 15 per cent of the total, while imports from the Far East and Australia were 24.4 per cent. Japan is the largest Far Eastern import source, providing 8.6 per cent of total 1993 imports.

Although the range of Kenyan exports is relatively wide, the heavy dependence on tea and coffee creates a variable and often uncontrollable trade balance situation. Deficits, however, while varying in magnitude, are the norm. Since 1972, the price of Kenya's primary export products, coffee, tea, petroleum products and horticultural goods, have risen dramatically. At the same time, however, the price of its imports have also gone up even more substantially. The terms of trade have declined from a figure of 153 in 1972 to a low of 71.0 in 1990 (1982=100) fluctuating widely in between. In 1994, the terms of trade were in Kenya's favour for the first time since 1986 at 101 (see Table I.11).

Table I.11. Kenya terms of trade, 1972-1994, selected years

	1972	1982	1985	1986	1988	1989	1990	1991	1992	1993	1994
All items	153.0	100.0	91.6	103.4	88.4	78.8	71.0	81.5	79.5	90.0	101.0
Non-oil items	100.0	87.3	93.0	78.9	79.0	70.0	62.0	70.8	71.0	81.0	9.1

Sources: Republic of Kenya, Central Bureau of Statistics.

On the other hand, the country has run a surplus on services every year since 1989 due to its large tourism sector. Net transfers also show a regular surplus due to the extension of aid by donor countries. And in 1993 and 1994, the current account was in modest surplus (see Section A above).

On the capital account, the inflow of direct investment has been extremely disappointing and the country has had to rely heavily on aid flows and loans to cover its traditional trade imbalances and foreign exchange requirements. New initiatives to promote foreign investment, both strategic and portfolio, have been put in place and it is hoped that by next year these flows will be on the rise (see Section D below).

The above situation has resulted in the expected large amount of foreign debt, $6.9 billion in 1993 according to the World Bank,[10/] or 135 per cent of GNP, and a debt service ratio of 28 per cent. The amount of external debt has stayed relatively constant since 1990 as the portion of concessionary loans has increased. Kenya has never undertaken a rescheduling of its debt, although it did receive a series of debt forgiveness between 1986 and 1992 totalling of $623 million, interest forgiveness of $16 million in 1989 and 1990, and recently negotiated a rescheduling of its interest in arrears.

Fig. I.A. Growth of GDP and MVA, 1990-1994
(Percentage)

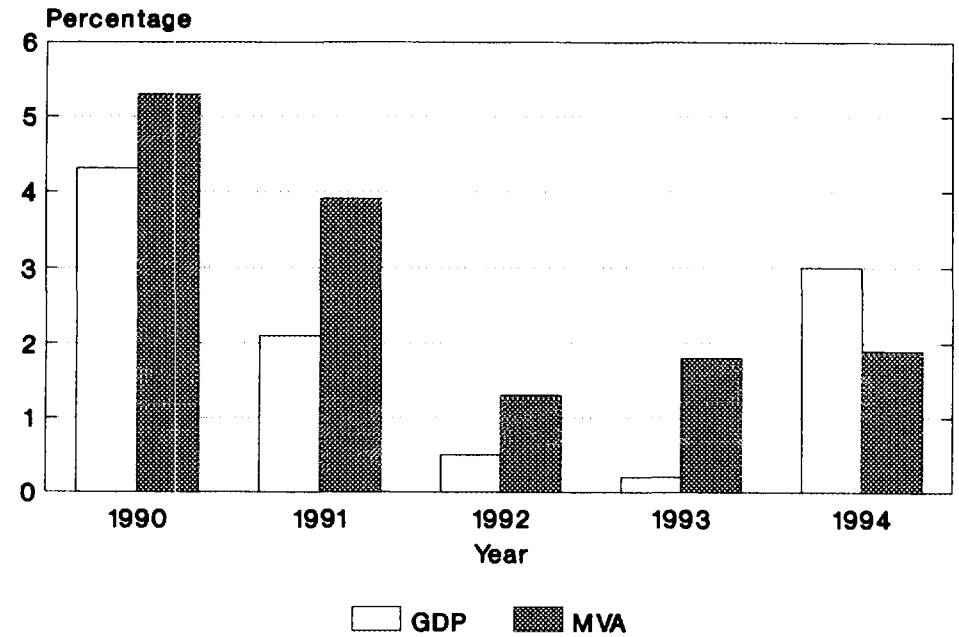


Fig. I.B. Structure of GDP by sector of origin, 1980 and 1994

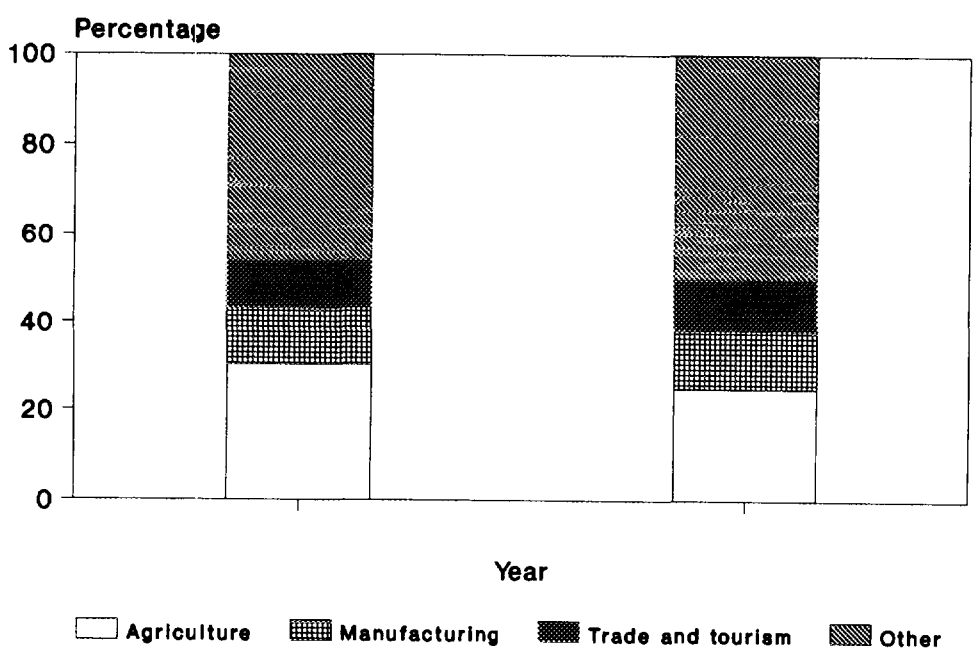


Fig. I.C. Exports, imports and trade balance, 1989-1993
(Shillings billion)

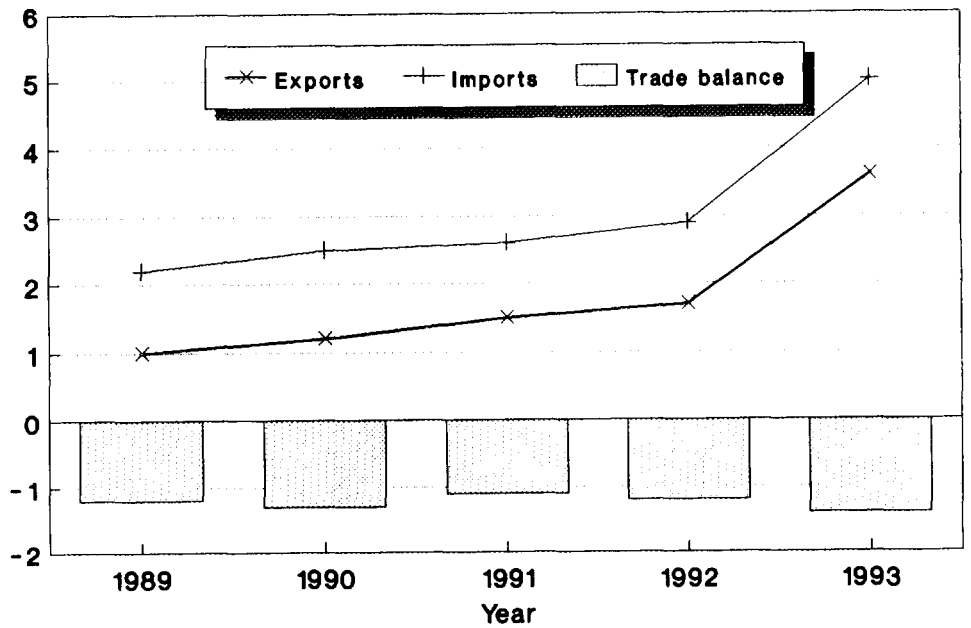


Fig. I.D. Money and credit supply, 1990-1995
(Shillings billion)

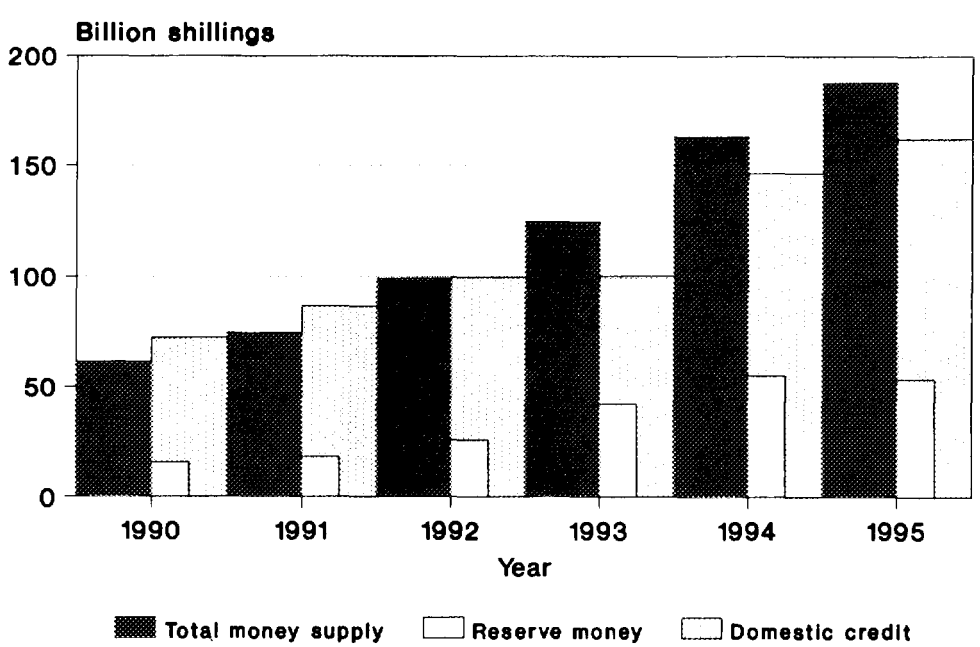


Fig. I.E. Foreign exchange reserves, 1990-1994
($ million)

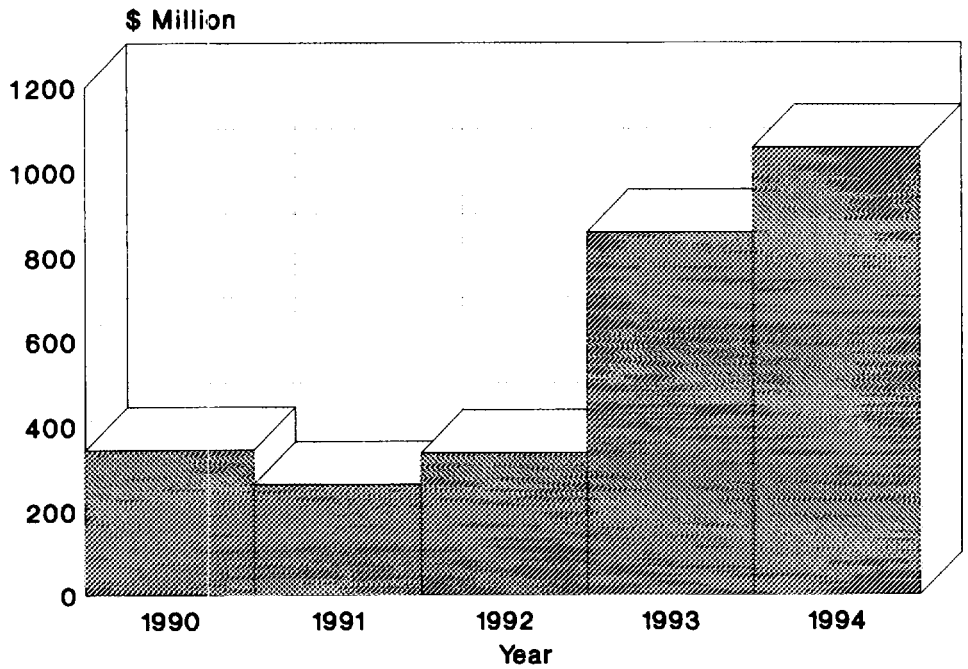


Fig. I.F. External dept/GDP and dept service ratio, 1990-1995
(Percentage)

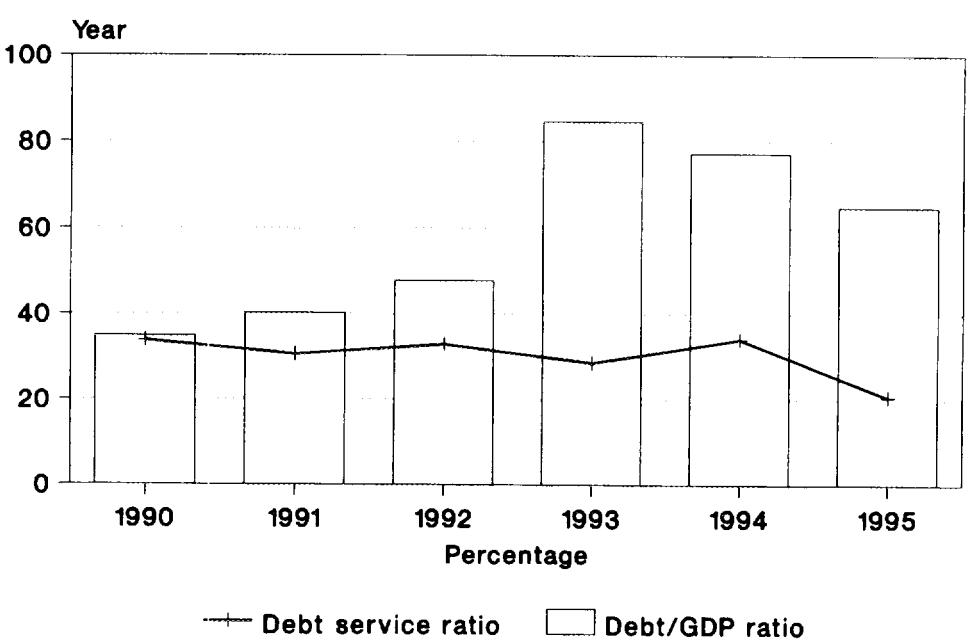


Fig. I.G. Exchange rate, 1990-1994
(Shilling equivalents to $1)

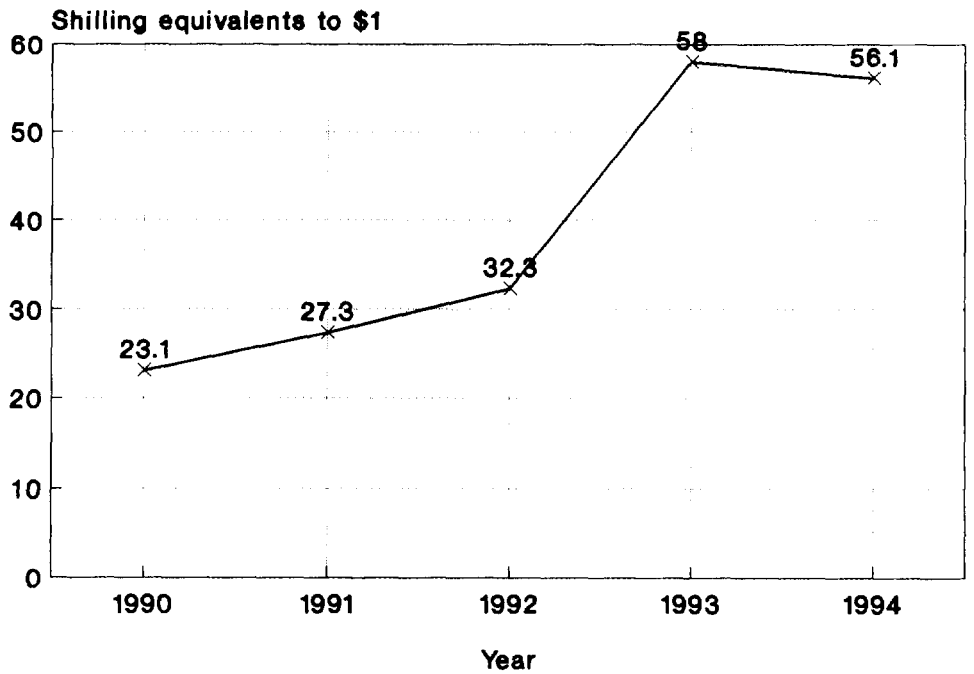
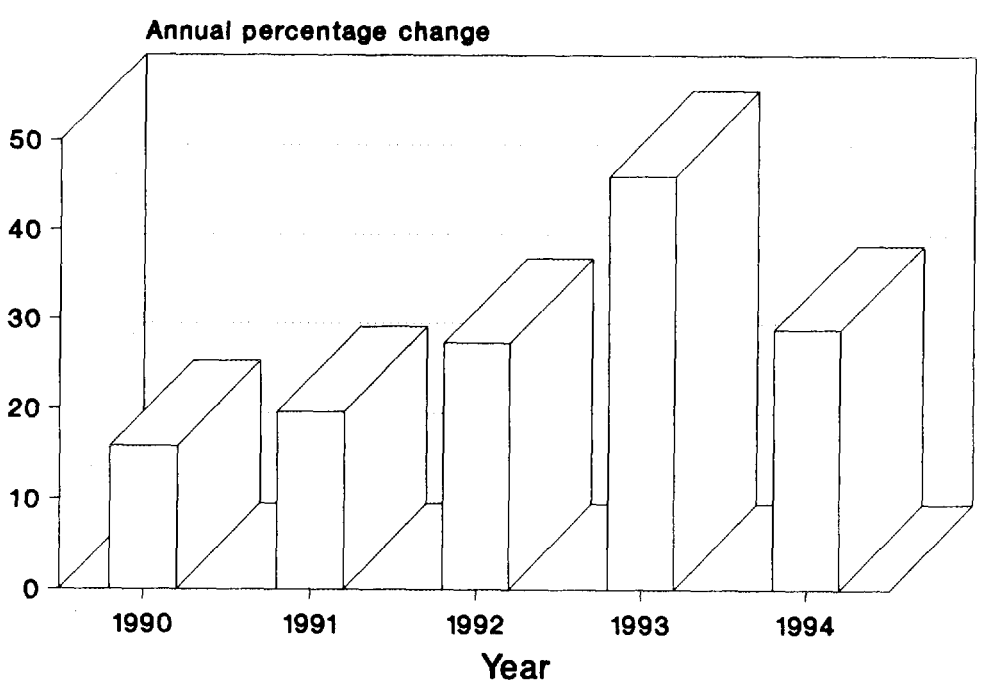


Fig. I.H. Consumer price change, 1990-1994
(Percentage)



C. POLICY ENVIRONMENT

Macroeconomic reform policies

As was noted in Section A, the main thrust of Kenyan economic policy in the past few years has been the reform of the entire economic system and especially the reduction in the direct role of government in the economy in favour of the private sector. These reforms, it is hoped, will re-establish economic stability, and then accelerate and sustain development. In the immediate term, it is hoped that they will result in renewed business confidence, both by domestic investors and potential international investors.

Ultimately, Kenya would like to adopt the "Asian Tiger" model of the Republic of Korea, Taiwan Province of China, Hong Kong and Singapore. It was with this model in mind that *Sessional Paper No. 1 of 1994 on Recovery and Sustainable Development to the Year 2010* stated the government's endeavour[11/] to follow a strict macroeconomic management with tight control of budget deficits, the money supply and inflation; establish an outward orientation which does not overvalue the shilling but allows ready access to foreign exchange; establish trade policies which foster an export bias and stimulate private foreign investment; develop the country's human resources through education and training; liberalize the labour market to increase labour mobility; and especially to rely on the "private sector to determine industrial expansion".

Beginning as early as 1986, with the publication of *Sessional Paper No. 1* of that year, it has been the goal of government to create an "enabling environment" in which development would flourish, with a significantly reduced role of government in the economy. Since 1986, and especially in the last few years, a great deal of progress has been made in this direction. The trade regime has been liberalized, foreign exchange regulations have been abolished and the shilling floated, reform of the financial sector has begun, the budget deficit as a per cent of GDP has been slashed, and the rationalization of the civil service and privatization and/or restructuring of the many state-owned enterprises has been started. Moves have also been made to ease the regulations and limits on foreign investment, and in fact to encourage such investment.

As well as policies directed specifically at economic factors, a large part of Kenya's recent efforts focus on the need to restore political stability and confidence at home, and international credibility. After 30 years of political stability, in the past four years the country has been plagued with ethnic strife, often of a very violent nature. In *Sessional Paper No. 1 of 1994 on Recovery and Sustainable Development to the Year 2010*, the government acknowledged the need to address the political problems facing Kenya and pledged to create a "tolerant society in which all Kenyans, regardless of their ethnic background, colour and creed are free to practice and profess their customs, cultures and religious beliefs". To achieve this, the government pledged to put the following institutional framework into place:[12/]

- encouraging, through constitutional reform, the development of a political system based on democratic principles of openness, tolerance, freedom of expression, association and choice, and the enjoyment of freedoms enshrined in the Constitution;

- ensuring the benefits of development are equitably distributed among individuals and across the country. Citizens will be offered equal opportunities in the economic sphere and in access to basic welfare provisions; and

- maintaining good neighbourliness, friendly international relations and regional cooperation by honouring and respecting international treaties and laws.

Fiscal policy

The key goal of Kenyan fiscal policy remains the reduction of the budget deficit. Despite efforts to improve revenue generation and control expenditures in recent years, the deficit continued to be high as a percentage of GDP in fiscal 1992/93 and 1993/94 at 7 and 7.1 per cent respectively.

Projections for 1994/95, however, are for 2.9 per cent of GDP, as reform efforts began to take effect.

The main thrust of policy has been to improve the generation of state revenue through increased taxation and more efficient collection and to decrease expenditures through the prioritization of expenditures and through civil service reform. From the 1992/93 financial year to 1994/95, current revenue rose by 82.8 per cent. Unfortunately, current expenditure was also up by 70.3 per cent.

The healthy gain in revenues may be attributed to several factors including:[13/]

- improved collection of income tax, and customs and excise duties;
- collection of tax arrears from parastatals;
- higher external grants;
- imposition of a 10 per cent withholding tax on Treasury bills;
- introduction of road maintenance levy funds;
- introduction of transit toll levies;
- expansion of value-added-tax (VAT) to cover the service sector;
- increase of VAT and duties of petroleum and petroleum products;
- temporary imposition of a 25 per cent duty on all imports (repealed in September 1994); and
- high tax collection from financial institutions as a result of strong profit performance.

Inflation over the period contributed to both increased revenues and expenditures. Other factors increasing expenditures were:

- increased allocation of food relief and water supplies to drought-affected areas;
- increased security expenditures in the north and north-eastern parts of the country and areas affected by ethnic clashes;
- increased expenditure on development projects;
- salary increases for civil servants, teachers, doctors and members of Parliament; and
- repayment of domestic interest charges on high-yielding Treasury bills.

Increased tax compliance and collection remain the aim of the government, and Parliament recently passed the Kenya Revenue Authority Act (KRAA) bringing the collection of the major taxes under one administration. The Act also provided for the employment of a high-powered staff in order to reduce tax evasion.

On the expenditure side, progress is continuing in reducing expenditure on recurring items and policy remains to concentrate 75 per cent of total development expenditure toward "core" projects and ensure their funding, while at the same time holding expenditure constant as a per cent of GDP. A full 60 per cent of recurring costs in the Kenyan 1994/95 budget were civil service salaries. A plan to reduce the size of the civil service and increase its efficiency has been in place for one year now. In fact, in 1994 there was no increase in government employment.

This rationalization of the civil service is to be completed in three stages by the end of the decade. The first stage (currently in its second year and expected to last until mid-1997) focuses on cost containment through the reduction in the number of staff. The reduction of staff by 48,000 is to take place through attrition and early retirement incentives, including retraining. The second stage of the rationalization will place emphasis on performance improvement and the development of greater policy analytical capability. The third stage will focus on the introduction of widespread and effective financial and management delegation.

The reform, in the way of restructuring and privatization, of the parastatals is also being undertaken to not only increase the efficiency of these enterprises and boost the private sector, but to decrease the drain they have on the resources of the government. A full description of these policies is given in Section D below.

Medium- and long-term fiscal policy goals have been stated as follows:[14/]

- the balancing of the budget (including grants), with net repayments of public domestic debt;
- the stabilization of current revenue at the 24 per cent of GDP level. The base of taxation is to be broadened and the collection improved to allow for a progressive reduction in rates, while maintaining overall revenue targets;
- government expenditure is to be restricted to between 24 and 26 per cent of GDP;
- budget rationalization measures will aim at maximizing the productivity of government expenditures;
- objective technical and economic criteria will be applied to project selection, and priority will be given to projects in the areas of health, education, infrastructure and the environment; and
- the present system of monitoring the budget and controlling expenditures will be strengthened in order to ensure the full compliance by government officials of fiscal objectives and targets.

Monetary policy

In the most recent years (since 1992), the goals of monetary policy in Kenya have been to restore monetary discipline to the system, just as those of fiscal policy have been to restore fiscal disciple. As noted in Section A, progress has been made on this front. After a serious lapse in restraint in the election year 1992, the Central Bank has returned to a tight stance and the growth of the money supply has slowed significantly. In the 1994/95 year, the average monthly rate of growth in the money supply slowed to just over 20 per cent, down from 1993/94's rate of over 30 per cent.

Inflation, which peaked at an annualized rate of 100 per cent in June 1993, was down to an average annual rate of 8.7 per cent in May 1995, and a three-month annualized rate of just 4.2 per cent. Treasury bill rates dropped from a high of 80 per cent in June 1993 to 14.58 per cent in May 1995.

The volatility of the shilling over the past two years (see Foreign exchange policy below) has had a somewhat destabilizing effect on monetary policy. Despite intervention by the Central Bank to correct what it considered an overvaluation of the unit in October 1994 (the shilling had appreciated substantially in the prior four months to a rate of KSh42.3:$1 from a rate of KSh56.2:$1 in June of that year), speculation continued with the market believing that the unit was still overvalued and further Central Bank action would be forthcoming. The result was substantial net redemption of Treasury bills and large jump in the money supply. Despite the set back, policy remained steady in subsequent months and money growth was curtailed. In the future, the CBK aims to contain the growth of liquidity to a rate consistent with target rates of GDP growth, while maintaining positive real interest rates.

In its efforts to maintain monetary discipline, the Central Bank is striving to increase the range of tools available for these efforts and thus its overall effectiveness. Budget deficits in Kenya were traditionally financed directly through overdrafts at the CBK. In recent years, however, several new methods have been developed. Treasury bills and notes with varying maturities have been introduced and secondary markets in these instruments encouraged. In addition, interest rates have been fully liberalized giving the CBK a far more sophisticated means to conduct policy. Through its open market operations, the CBK may now finance the budget deficit without necessarily raising the money supply.

Such open market operations in Kenya, however, are limited in their effectiveness. To date, the secondary market in Treasury instruments is not large and thus transactions changing the rates of interest on Treasury securities do not immediately, or efficiently, translate into changes in the savings and lending rates of commercial banks. In order to expand the market and thus make it more effective, the CBK is now running a campaign aimed at individual investors to encourage their participation in Treasury securities, is lowering the denomination of the securities on offer and has appointed the commercial banks as agents for the sale of Treasury securities. There is also a push on to expand the trading of Treasury instruments on the Nairobi Stock Exchange.

With open market operations still limited, the CBK continues to rely on changes in the statutory cash ratio and manipulation of the re-discount rate available through overnight lending facilities to carry out its policies.

Price policy

Over the past several years price liberalization has been under way and with the deregulation of the oil industry in the fall in 1994, the last price controls in Kenya were removed. After decades of elaborate price supports and controls run by the various ministries, the market is now the determiner of Kenyan prices. Competition, both domestic and international as a result of import liberalization, was to check price increases. In some cases, however, the decontrol has resulted in sharp jumps in the prices of basic commodities anyway.

Concern over this situation has led to a move to strengthen the Restrictive Trade Practices, Monopolies and Price Control Act (RMPCA) which was passed in 1988 as a safeguard against abuse resulting from decontrol. The Act established a Monopolies and Price Commissioner to investigate alleged abuses and a department at the Treasury under the control of the Minister of Finance. It also provides for an independent and appellate Restrictive Trade Practice Tribunal. The commissioner investigates alleged abuses and then reports to the minister of finance who has the authority to issue an order requiring the responsible parties to desist and compensate the injured parties (competitors and customers). The accused party has the right of appeal. If the order is ignored, the commissioner can ask for prosecution. By the end of 1994, only 44 cases had come before the tribunal, and of that only one ministerial order was issued and only one case ever went before the High Court.[15/]

Trade policy

In recent years it has become evident to Kenyan economic authorities that the most important determinant in the country's ability to meet its growth and development targets is the extent to which it can export to world markets.[16/] The promotion of trade, and exports in particular, has been central to Kenyan liberalization and reform policy for many years.

Beginning as early as 1986, with the publication of *Sessional Paper No. 1 of 1986,* it became policy to create an export bias in the economy. As noted in Section A above, this was a change from earlier policy which aimed at the development of import substitution industries. In order to develop export industries, it was important to ease restrictions on the importation of critical machinery and capital equipment as well as other inputs. Thus, tariff rationalization was under taken and by 1993, import liberalization was virtually complete with the abolition of almost all import restrictions.[17/]

As a first move, quantitative restrictions (quotas) were replaced with a tariff system. Second, that system was rationalized and the rates reduced dramatically. For example, in 1987, 124 import items were subject to tariffs of 100 per cent or more and a further 109 items carried duties of 80-99 per cent. Excessively high rates have been removed, and the average tariff rate is now below 30 per cent. With the June 1994 budget, the number of tariff rates was reduced from eight to seven and tariff rates were again reduced. The 50 per cent and 40 per cent bands were combined at 45 per cent, and the 25 per cent band was eliminated with all items falling under the 20 per cent rate, and a new 5 per cent band was established for certain primary commodities. At that time the temporary 25 per cent surcharge which had been designed as a revenue generating means was revoked.

While the effect of import liberalization has been generally favourable, in 1994 Kenya did experience some of the drawbacks in the form of increased dumping. In his 1995 Budget Speech, the Minister of Finance Mr. Mudavadi claims that Kenya has been the victim of unfair trade practices by both its European and African trading partners such as the use of hidden subsidies to producers. In several cases, Kenya has put countervailing duties in place. Such moves include duties on maize and sugar, iron and steel, and paper bags.

Another problem the country has faced is the fraudulent claim of duty exemption under the country's export promotion scheme, whereby importers are exempt from duties on items that are to be re-exported, or used in the production of export products. Imports for use in aid-supported projects are also exempt and fraud has been attempted in this area as well. The fraud is reported by the Minister of Finance to be extensive and particularly damaging to the textile industry.

Kenya's hope for the future lies in its ability to export and to generate foreign exchange to pay for the needed know-how and technology for development. But as well as promote exports in general, the goal of Kenya's policy is promote value-added goods and reduce the country's reliance on its highly volatile traditional commodity exports. Thus within the agricultural arena, horticulture is a high priority. The promotion of manufactured exports is especially important.

Several measures have been taken over recent years such as the abolition of export duties, improvement of capital allowances and moves to increase the availability of export finance. Liberalization of foreign exchange and insurance regulations were also initiated that eased the burden on exporters, and local suppliers to companies manufacturing under bond (see below) were zero-rated for VAT. With the June 1995 budget, further steps were taken to reduce the financial burden on exporters. Tariffs were again reduced on a wide range of raw materials and capital goods, and the Treasury was directed to begin discussions with private investors over the establishment of an export credit guarantee scheme.

Kenya's major export promotion efforts, however, come under three major incentive schemes: duty/VAT exemption; Export Processing Zones; and Manufacturing Under Bond. And while these schemes initially targeted only manufacturing production, they have been expanded to include services and primary production as well. Details of these schemes are discussed under Section D below.

Several institutions are also in place to support export industries and promote exports. The most important are: the Export Promotion Council (EPC); Kenya Exporters Assistance Scheme (KEAS); Kenya Exporter Development Support (KEDS); and the Horticultural Crops Development Authority (HCDA). EPC, KEAS and KEDS provide technical and limited financial support to primarily small and medium enterprises (SMEs).

The Export Promotion Council is a policy board established in 1992 as a presidential council to promote and provide advisory services to the export sector. It establishes targets for Kenyan exports, identifies new export markets, disseminates export-related information, reviews export performance, and advises the government on new policy initiatives for increasing exports and attracting investment in export industries.

Trade relations

Key among Kenyan efforts to promote trade is the establishment of good trading relations with its neighbours and the international community. Kenya is a participant in the Lomé IV Convention and member of the World Trade Organization (WTO), as well as several trading blocs closer to home such as the East African Cooperational Council (EACC) together with the United Republic of Tanzania and Uganda, and the Common Market for Eastern and Southern Africa (COMESA) which is the successor to the Preferential Trading Area (PTA).

As a member of the Lomé IV Convention, Kenyan industrial exports may enter European Union markets free of duty and quantitative restrictions provided certain rules of content are followed. Most agricultural products also receive Most-Favoured-Nation treatment. As a member of WTO, Kenya is obliged to follow a programmed reduction of protectionist barriers. It has invoked its right to a five-year grace period in order to give its Customs Department and other affected agencies time to prepare for the change in valuation of imports that will be required, but states it expects to be in full compliance well before that period is up. It is already in compliance in terms of direct inward investment controls and is close on portfolio investment.

Kenya, the United Republic of Tanzania and Uganda formed the special regional trade association, the East African Cooperation Council, through which to work to harmonize trade tariffs, as well as discuss other issues that pertain to the three countries. The United Republic of Tanzania and Uganda account for 33 per cent of total Kenyan exports and over half of all African exports.

The broader intra-African market is also united through COMESA which is made up of the former PTA members and the members of the Southern African Development Community (SADC). The COMESA Treaty was ratified in November 1994 and already several measures have been adopted including the harmonization of road transit charges, the adoption of the Road Customs Transit Declaration Document and the Single Goods Declaration Document, as well as the adoption of the Customs Bond Guarantee scheme. Under discussion are double taxation treaties among the members and cross listing on regional stock exchanges. COMESA aims to have a full-fledged common market in place by the year 2000 and common currency agreement by 2020.

Foreign exchange policy

A major portion of Kenya's overall reform and marketization efforts was the liberalization of the foreign exchange regime. By freeing the shilling and abolishing foreign exchange transaction limitations, it was hoped that the amount of foreign exchange available would significantly increase. As noted earlier, it is widely believed[18/] that one of the constraints to Kenyan development, especially industrial development, has been the chronic lack of foreign exchange.

Since October 1993, the shilling has floated freely and exchange controls have been reduced through a series of legal notices granting exemptions from the Exchange Control Act. On 1 November 1995 Parliament voted unanimously to repeal the Act in its entirety.

The shilling value is now determined by the interbank market. Residents and non-residents alike are permitted to buy and sell foreign currency at authorized dealers for most transactions. Purchases of foreign exchange in an amount greater than the equivalent of $5,000 must be supported by documentary evidence of a commercial transaction. No justification is necessary for amounts below that level.

There are no longer any retention quotas in place and exporters may keep 100 per cent of their foreign exchange in local foreign currency accounts if they wish. All restrictions on trade-related payments also have been removed. Residents are now permitted to borrow from abroad without restriction, and foreigners (legal persons/companies) may borrow locally. Blocked funds provisions have been removed.

Since its liberalization in October 1993, the shilling has been relatively volatile. Just prior to floating the unit had already lost substantial ground in the interbank market, falling from KSh58:$1 in March 1993, to KSh80:$1 in June of that year. With the tightening of monetary policy and the easing of exchange controls over the summer, however, the unit appreciated significantly and the rate in the interbank foreign exchange market was close to the official rate of KSh69:$1. In response to the narrowing of these two markets, the Central Bank decided the time was right to remove all controls on the currency.

Over the course of the next year, the shilling appreciated steadily, peaking at KSh42.38:$1 the following October (1994). Following the de-control of the oil industry that fall, however, the shilling dropped substantially, hitting KSh51:$1 by 1994. It then remained at level until April 1995 when it dropped again to the KSh55:$1 range in response to the increased voicing of dissatisfaction with the country's progress on the political and privatization fronts by major donor organizations.

The early strengthening of the unit upset exporters who were adversely effected by the move, while importers were pleased. The recent weakening of the shilling has, of course, had the opposite effect with exporters pleased and importers finding themselves under pressure. This has sparked an internal debate as to whether the CBK should intervene in the market. The Bank, however,

is continuing to argue the virtues of free market and the freeing of the Bank from holding large amounts of foreign exchange with which to support the currency. For now, policy will remain that of implementing sound fiscal and monetary policies and letting that keep the shilling stable.

Employment policies and human resource development

With a population growing at an average annual rate of 3.3 per cent and a small modern sector, job creation and employment growth are critical to the future of Kenya. While reliable data on current rates of unemployment are not available, the government estimates indirectly that in 1993, unemployment ranged between 17.8 per cent and 23.6 per cent. Despite efforts to reduce this figure, they expect that in 1996 the range will remain between 16.8 per cent and 23.8 per cent.[19/] To reach full employment by the year 2010, the government estimates that jobs will have to be created at a rate of 4.3 per cent per year for a total of 6.4 million new jobs. Agriculture will have to create one half of them, the urban informal sector a further 23 per cent.

The creation of jobs in the modern sector, which will have to expand by 1.6 million to meet the goals of full employment, will depend on the expansion of the private sector. While in the past, government was the generator of jobs, creating 63.5 per cent of modern sector jobs in the 1986-1990 period, the change in Kenyan policy and civil service reform means this will no longer be the case. Under the new reform policy, the responsibility of job creation falls to the private sector, and the role of government becomes that of providing the environment in which the private sector can expand and create employment opportunities.

In the 1994/95 financial year, the private sector responded well to the challenge, and according to the government, the number of employed outside of the rural small-scale and pastoral sector grew by close to 12 per cent. Most of this, however, was in the informal sector which increased 22 per cent. Modern sector employment was up 2 per cent. The later was all in the private sector since with the civil service reform programme under way, government employment was held constant.

While the key element and concern of Kenyan employment policy is the creation of new jobs, human resource development and the upgrading of skills and productivity are also prime objectives. There is an abundance of labour at the unskilled and semi-skilled level, but a shortage at the technical and managerial levels. Increasing labour mobility, both geographic and functional is also a main goal. The later is a particular emphasis of the Civil Service Reform Programme. Early retirees are encouraged and given training opportunities to enable them to move to the private sector.

Industrial training and retraining programmes are also important components and the government has put in place a National Training Levy to raise the funds to finance these programmes. A trade testing and certification system is also being put in place. Virtually all employers operating in Kenya pay into the levy fund either at a rate of KSh100-500 per employee or a turnover-based rate, depending on the sector.

While most training takes place on-the-job and is conducted by and/or paid by the employer, the National Industrial Training Council, created under the Industrial Training Act, manages a craft apprentice scheme to support the on-the-job training of apprentices. Other vocational and technical training in Kenya takes place in several different institutions. There are currently three National Polytechnics which offer degrees to secondary school leavers and employer sponsored students; technical training institutes which replaced the former technical secondary schools; Youth Polytechnics which provide training at the artisan level to primary school leavers; Harambee Institutes of Technology which are community-based organizations but receive government support; and industrial training centres.

Some management training is also sponsored by the government. Training courses for both junior and senior managers are held at the Management Training and Advisory Centre.

As noted earlier, youth unemployment is a particular problem in Kenya, and one that is increasing. Over 59 per cent of the population is under the age of 20. In an effort to address this directly, the government has increased its financial support to the country's system of Harambee Institutes of Technology, Youth Polytechnics and other institutes of higher education. The National Youth Service has also been increased to accommodate 3,000 trainees, up from 2,000.

Because it is one of the largest generators of employment growth, government support of *jua kali* enterprises takes many forms, ranging from special credit programmes to the support for the development of regional market centres (a full accounting of government support to this sector is given in Section D below). One of most important government supports, however, is the provision of management training schemes now being provided by District Trade Officers. *Jua kali* enterprises are the largest source of non-farm job creation in the country. They make extensive use of local inputs and recycled materials and have many forward and backward linkages. But they also suffer greatly from poor productivity and erratic quality. Increased training in quality management and other technical aspects, as well as management training are necessary to decrease the mortality rate of these enterprises.

Environmental policies

While Kenya's relatively low level of industrialization has spared it from many of the environmental disasters associated with development such as high levels of lead in the air and water, the country's high rate of population growth, among other factors, has left it facing critical decisions to be made on land use and deforestation. The natural environment also gives many problems with regards to water use and availability. Kenya often faces severe droughts. Rapid urbanization also poses critical problems of waste management in the urban centres.

With a growth rate over 3 per cent per annum, the demand for land for housing purposes is increasing rapidly. The demand for agricultural land to feed this increasing population is also high. But land is not unlimited in Kenya. As noted above, a great deal of Kenyan land is arid or semi-arid and not suitable for most agricultural pursuits. Kenya also has a fragile wildlife population that requires vast amounts of land for its survival. And since this wildlife, through tourism receipts, accounts for over $200 million in foreign currency and together with beach resources, 14 per cent of GDP, there is an urgent need to balance these demands.

Kenya has stated that it is in agreement with the Rio Declaration and Agenda 21 and intends to lead the way in making development economically, socially and ecologically sustainable. The Seventh Development Plan (1994-1996) attempts to incorporate these goals into Kenyan policy, including a change in basic food security policy that calls for the availability of foreign currency for food purchases rather than the cultivation of lands that are inappropriate for agricultural production. Research into drought resistant crops, reforestation programmes, protection of wetland areas, protection of wildlife, the promotion of energy efficient technologies and the promotion of the efficient use of water resources have all been included in the plan.

According to the Seventh Development Plan, increased emphasis is also to be placed on the environmental impact of development projects through the requirement of environmental impact assessments for all public and private projects. All energy-related projects already require such an assessment.

As well as finding the funding to provide the necessary infrastructure for such things as water and waste management, one of the major problems facing Kenya in its efforts to ensure environmentally sustainable development is the drafting of comprehensive environmental law. Currently there is no such comprehensive environmental legislation in Kenya. The relevant legislation is mostly contained in local authority bylaws on building and town planning and in workplace health and safety laws. For example, the following are several of the relevant pieces of legislation that deal with environmental protection and health and safety:[20/] the Occupiers Liability Act (Chapter 34); the Public Health Act (Chapter 242); the Radiation Protection Act (Chapter 243); the Land Control Act (Chapter 302); the Land Planning Act (Chapter 303); the Plant Protection Act (Chapter 324); the Plant Varieties Act (Chapter 326); the Pest Control

Products Act (Chapter 346); the Water Act (Chapter 372); the Wildlife (Conservation and Management) Act (Chapter 376); the Forests Act (Chapter 385); the Traffic Act (Chapter 403); and the Factories Act (Chapter 514). As would be expected this makes enforcement difficult.

The National Environment Action Plan, published by the Ministry of Environment and Natural Resources in June 1994, set out the government's new environmental policy objectives and strategies for their implementation. Its main recommendation is the creation of a single institution with the legal authority to coordinate the management of environmental resources and the harmonization of the existing legislation. The first step in this harmonization is to be the development of "umbrella" legislation, followed by the assessment of existing legislation to ensure that it conforms.

The drafting of such comprehensive legislation and then the coordination of all other legislation is a long and complex process that many developing countries and the countries in transition are facing. It is also a relatively expensive process, and the cost of upgrading existing facilities to meet new standards can be staggering. Kenya is receiving assistance from the United Nations Environmental Programme (UNEP) for the review of the laws. The cost of upgrading and the timing of such upgrading (when existing facilities will be required to comply with any new and more stringent laws) is a problem still to be faced.

Because environmental issues, especially those relating to air and water, transcend national boundaries, it is the intent of Kenya to work closely with its neighbours (the United Republic of Tanzania and Uganda) in developing regional environmental protection legislation.

D. INDUSTRIAL POLICY

As noted above, Kenya's main economic and political goal is to promote sustainable economic development. The key to this, the government believes, is to develop Kenya's industrial base, especially export industries, following the model of development and the policies of the newly industrialized countries (NIC) of Asia. Kenya, in fact, hopes to attain NIC status by the year 2010. To this end, a comprehensive economic reform policy aimed at restructuring the economy and promoting industrial development has been put into place. With an accent on reducing the direct role of government in the economy through the relaxation of regulations and restrictions on trade (internal and external) and prices, and the marketization of the economy, Kenya has put several initiatives and incentives in place to promote the development of new industries and enhance the efficiency of existing facilities. The most important of these initiatives are the promotion of export industries and the creation of an export thrust in the economy, the restructuring and privatization of parastatal enterprises, the promotion of small industries, especially in rural areas to create employment and balanced development, and the promotion of direct foreign investment, both strategic and portfolio. The latter is seen as a critical means of narrowing the gap between the financial requirements of development and domestic resources while freeing the country from its heavy dependency on aid funds.

Export promotion

As discussed above, an important element of Kenyan industrial policy since 1986 is the desire to create an export thrust in the economy, especially through the promotion of manufactured exports. Three main schemes are now in place to encourage investment in manufactured exports: duty/VAT exemption; Export Processing Zones (EPZ); and Manufacturing Under Bond (MUB). As noted above, while these schemes were primarily designed for manufactured exports, they have now been extended to cover primary production and services.

Manufacturing Under Bond was established in 1986. The main incentives to participate in this scheme are duty and VAT exemption on imported plant, machinery, equipment, raw materials and intermediate inputs, and investment allowances of 100 per cent on immovable fixed-assets. While such production is to be exported, in certain cases and with the approval of the commissioner of

Customs and Excises, goods may be sold in the domestic market subject to the payment of normal duties and taxes plus a 2.5 per cent surcharge.

There are currently seven locations available for registration as an MUB enterprise: Nairobi; Mombasa, Kisumu, Eldoret, Nakuru, Nyeri and Thika. The areas immediately surrounding these towns are also included in the scheme. To be eligible for MUB status, a manufacturer must demonstrate a minimum of KSh10 million worth of exports per year or provide employment for 50 or more persons. The manufacturer must also be able to prove a foreign market for its production.

Hoping to attract increased foreign investment, in 1990, Kenya passed the Export Processing Zone Act aimed at manufacturers for export only. The Act provides for the development of export zones under a special EPZ Authority (EPZA). A number of such zones have been established already, the first of which was the Sameer Industrial Park in Nairobi. The Park has been extremely successful and was fully occupied soon after completion. The first government-owned EPZ was built at Athi River (outside of Nairobi).

In all, Kenya has nine designated EPZs. Four are in the Nairobi area: Sameer Industrial Park and Thomas de la Rue EPZ Ltd which are operational, and Real Industrial Park and Embakasi which are under development. Three zones are in the Mombasa area: Birch Investments EPZ Ltd and East Africa Molasses Ltd which are operational, and Changamwe and Kwa Jomvu Zones which are under development. Athi River EPZ is operational and Anicit Kenya EPZ Ltd in Nakuru is under development.

Participation in the EPZs includes companies from several industrial sectors such as: clothing and textiles, textile yarn, engineering and vehicle assembly, pharmaceuticals, moulded rubber products, food processing, non-food agro-processing, printing, electronic goods, and refined petroleum products.

Companies operating in EPZs qualify to receive the following benefits:[21/]

- ten-year tax holiday and flat 25 per cent tax for ten years;
- exemption from all withholding taxes on dividends and other payments to non-residents during the first ten years;
- exemption from import duties on machinery, raw materials and intermediate inputs;
- no restrictions on management or technical arrangements;
- no restrictions on foreign capital repatriation; and
- exemption from VAT.

In an effort to expand exporting beyond MUB status firms and export-only firms located in an EPZ, a third scheme was put in place aimed at promoting increased production for export and local production of the inputs to export-oriented industries. Through this scheme, the exemption from duty and/or VAT is available to all companies for materials imported for use in the manufacture of goods for export or duty-free sale domestically. This includes the importation of materials that will be used for the production of raw materials that are in turn used for the production of export goods or locally-sold duty free items. The exemption is available for goods directly exported and those sold to another concern which will then export them. The exemption is available through the Export Promotion Programmes Office which was established in 1992 under the Ministry of Finance.

Promotion of small industry and balanced development

The promotion of small-scale industry, or *jua kali* enterprises, became central to Kenya's development strategy with *Sessional Paper No. 1 of 1986* and the Sixth National Development Plan, 1989-1993. Over the plan period of 1989-1993, the sector was targeted to create 587,000 new jobs out of a total of 1.9 million for the economy as a whole. In 1989, the government also conducted a study on the constraints facing the *jua kali* sector and developed a strategy[22/] for over coming

them. In March 1992, the framework of that strategy was published in *Sessional Paper No. 2 of 1992 on Small Enterprises and Jua Kali Development in Kenya.*

Early efforts on the part of the government to support *jua kali* enterprise development included investment allowances, exemption from duties and taxes on imported capital equipment (up to a certain amount), and the establishment of two funds; the District Development Fund (DDF) in 1987 aimed at providing enabling infrastructure via the development of Rural Trade and Production Centres (RTPC); and the Rural Enterprise Fund (REF) in 1989 to finance *jua kali* entrepreneurs. Concerned that few *jua kali* enterprises ever graduated into the formal sector, however, in 1992 the government called for an abundance of new measures. Included in these was an assessment and prioritization of the infrastructure needs of *jua kali* enterprises. Other measures were the encouragement of the formation of groups of small artisans so that they might benefit from the government-financed rural electrification programme, and increasing the availability of industrial and commercial land. The Ministry of Research, Science and Technology through its parastatals and University-Industry Link Committee also was asked to draw up guidelines for the development and transfer of technology, as well as the identification of appropriate technologies. And, information was to be more widely disseminated on both local and international markets. Other efforts were to reduce the regulatory constraints and encourage the more effective use of programme benefits by the sector.

By 1994, it was evident that many obstacles to the development of small enterprises remained, not the least important of these were the lack of coordination among the many support agencies and weak links between policy initiatives and programmes and projects. In a new action plan drawn in 1994,[23/] several further measures were identified as necessary. Most important, however, the new strategy called for the creation of a partnership between government, the private sector, non-government organizations (NGOs) and the donor community. Efforts are to focus on increasing the impact of the existing institutions, not on creating new ones.

Specific measures called for under the 1994 Action Plan are:

- improving mechanisms for policy and strategy implementation, coordination and monitoring of SME and *jua kali* activities, and assessing the impact of such policies and programmes on target beneficiaries;
- improving the legal and regulatory environment;
- the development of institutional and physical infrastructure;
- market development for SME and *jua kali* products;
- improving access to credit and finance;
- technology and technical skills development;
- improving the design and delivery of other vital support programmes for SMEs and *jua kali* enterprises;
- promoting the involvement of women in SMEs and *jua kali* development; and
- facilitating information gathering and dissemination.

A further constraint to the development of SMEs and *jua kali* enterprises has been industrial technology. To ease this situation, the Kenya Industrial Research and Development Institute (KIRDI) has been directed to focus efforts on the re-design and adaptation of technologies for use by SMEs.

Given that the per cent share of the population living in urban areas is rising rapidly and placing a great strain on government's limited resources, the promotion of balanced development and limiting, to the extent possible, the number of people migrating to the cities, is also a key policy concern. The promotion of the *jua kali* sector and the development of SMEs is a major part of the effort to balance Kenya's development and encourage rural development. Beginning in 1987 with the creation of the District Development Fund and creation of Rural Trade and Development Centres, Kenya has been encouraging the creation of employment, self-employment and SMEs in the rural areas.

Other measures to encourage the development of industry outside of the urban areas include investment incentives for new investments made in hotels or manufacturing outside of Nairobi and Mombasa.

Industrial technology

A critical component of Kenyan industrial policy is the promotion of industrial technology. Kenyan industry will only be able to compete on world markets if it has the same advantages of modern and new technologies as other countries. To assist in the transfer of technology from the developed economies to Kenya, the government has established a National Council for Science and Technology. This council is in the process of formulating an industrial technology policy. While not yet complete, they aim to create a policy that will:[24]

- build local technological capacity and culture with a strong national inclination;
- provide guidelines on technological development, choice and transfer, and the adaptation of technology;
- streamline and strengthen institutional arrangements and linkages and build capacity; and
- promote private sector participation in the development of industrial technology.

The primary technological institution in Kenya is the Kenya Industrial Research and Development Institute (KIRDI). It was established in 1979 by the Science and Technology Act and comes under the Ministry of Research, Science and Technology. KIRDI is a multi-disciplinary institution conducting research in industrial and allied technology in the areas of civil and chemical engineering, electronics, mechanical engineering, textiles, fibres, plastics, ceramics, clays, foods and chemicals. It also conducts research in the field of mining and power resource development.

The Institute is mandated to: create facilities to enhance indigenous scientific and technological capabilities for fully exploiting the national resource potential; facilitate the transfer of technology through the redesign of local equipment and/or the adaptation of the technology to local endowments where necessary; select identified technologies and establish pilot projects for demonstration; and provide information on appropriate technologies to industrialist and entrepreneurs. Recent directives have placed emphasis on the adaptation of technologies for small industries in particular.

Investment policy

Under Kenya's new reform policy to reduce government involvement in the economy, government investment in areas outside of infrastructure and those projects necessary for the delivery of social services (schools, hospitals, etc.) is also to be reduced. Investment in parastatals is declining, there is a moratorium on new investment in those parastatals slated for privatization. Already in 1995, 55 per cent of total investment was accounted for by the private sector.

In its efforts to increase the share of private sector investment, the government has put in place a three-prong approach: to encourage inward and domestic investment by removing fiscal and other regulatory constraints which increase investment risk; to give priority in approvals in all sectors of the economy to job creating, domestic resource utilizing, infrastructural and export-oriented investments; and to facilitate the privatization of the state enterprises and other services. To a large extent, excessive regulations regarding licensing and price controls which discourage investment have been removed.

While Kenya has no generalized investment incentive scheme in place other than the incentives available to exporters described above, there are several ad hoc incentives that are normally negotiated on a case-by-case basis. In *Sessional Paper No. 1 of 1994*, however, the government stated its intent to initiate legislation for an investment code which would pertain to both domestic and foreign investors and under which the Investment Promotion Centre (IPC) would operate. When passed, the Code is to lend transparency and accountability to the investment process.

Some investment allowances are in place, but as of 1995, the previous rates of investment allowance: 85 per cent on plant, machinery, buildings and equipment for investments in hotels and manufacturing concerns located outside of Nairobi and Mombasa and 35 per cent for investments in those cities; had been collapsed into one flat deduction of 60 per cent. Companies with Manufacturer Under Bond status continue to receive allowances of 100 per cent.

Investments in several sectors also receive favourable asset depreciation treatment. Hotels are depreciable at a rate of 4 per cent per year, industrial buildings at 2.5 per cent per year, plant and machinery at 12.5 per cent per year, and vehicles, trucks and tractors at 25-37.5 per cent per year. The rules on loss carry forward are also liberal: tax losses may be carried forward indefinitely.

Box I.A. Investment incentives

Ownership	100 per cent foreign ownership permitted
Tax holiday	10 years for enterprises operating in EPZs
Import duty	Capital goods, machinery and plant equipment with a value greater than KSh10 million: exempt from import duties
Export duty	Raw materials for export goods: duty free Inputs for MUBs and EPZs: duty free
Income tax	1-37.5 per cent depending on tax bracket
Corporate tax	35 per cent resident companies 42.5 per cent branches of non-resident companies
Withholding tax	7.5 per cent, with a 10-year exemption period for EPZs
Losses carried forward	Losses may be carried forward indefinitely
Capital allowances	Hotel and manufacturing sectors: 60 per cent allowance MUBs and EPZs: 100 per cent allowance
Exchange controls	Free operation of foreign currency accounts
Remittance	No restriction on remittances
Staff recruitment	May employ expatriates where local talent not available
Location incentives	Numerous incentives apply to the EPZs: VAT exemptions, import duty exemptions, tax holidays, no withholding taxes and low depreciation rates
Investment guarantees	Protection clause, bilateral treaties and member of MIGA
Dispute resolution	ICSID contracting State

Source: UNIDO Investment Services.

In some cases, the duty on imported goods can be reduced. For example, duties on machinery and equipment can be reduced to 10 per cent if the investment is expected to result in a net foreign exchange earning or savings for Kenya. Custom duties on imported plant and equipment for use in industries located outside of major towns can also be charged at 10 per cent. A reduction in duties and tax of 50 per cent is granted to industries located within Nairobi and Mombasa and other urban areas.

Foreign investment

As noted throughout this study, one of the most critical factors hampering Kenyan growth and development has been a lack of investment funds. Over the years, the amount of foreign direct investment (strategic and portfolio) has been limited. It is estimated[25/] that there are a total of 180 transnationals with some form of investment in Kenya, while total foreign investment in the country is thought to be around $3 billion (including profit reinvestment). British companies are the largest investors, followed by companies from the United States and Continental Europe.

In 1994, the Investment Promotion Centre received only 82 investment project proposals, down from 112 in 1993, of which 25 were for manufacturing under bond. In fact in recent years, the only significant new foreign investment that has taken place has been in the oil sector. Existing investors, however, have continued to expand their operations.

In an effort to increase the amount of foreign investment flowing to the country, an important element of the country's new economic reform policy, many of the regulations on foreign-controlled firms that were making operating in Kenya difficult have been and are in the process of being removed. The limit on local borrowing by foreign firms, for example, has now been lifted.

Foreign investment is now being actively pursued by Kenya. Government officials now stress the need to free the country from dependence of foreign aid, by increasing the amount of foreign investment as well as generating domestic capital. All sectors of the economy have been opened to foreign investment so long as the investment is seen to increase employment, accommodates local investment, has no adverse effect on the environment and has no adverse national security implications. While export-oriented investments are particularly favoured, those targeted at the local market are also encouraged. Foreign investment is also permitted in the privatization process (see below).

Under Kenyan law, foreign investors are guaranteed protection from expropriation for reasons other than national security and then fair and prompt compensation will be made. Capital and profit repatriation is also guaranteed under the Foreign Investment Protection Act (FIPA). Under the provisions of this Act, the following may be repatriated: after tax profits, including retained profits not capitalized; the book value of the initial investment plus retained earnings that have not been capitalized; and principal and interest associated with any loan specified in the Certificate of Approved Enterprise. This Certificate, obtained from the Ministry of Finance, is required for receipt of FIPA guarantees. While delays in repatriation were notorious in the past, Kenya's healthy foreign exchange reserves have removed this problem. Capital profits are not currently repatriable, but are expected to be so soon.

Kenya is also a member of the World Bank affiliated Multilateral Investment Guarantee Agency (MIGA) which issues guarantees against non-commercial risk. And, the country is a member of the International Centre for the Settlement of Investment Disputes (ICSID).

There are generally no restrictions on the foreign ownership of firms engaged in commerce and industry in Kenya. There are restrictions on insurance companies, which require Kenyan participation.[26/] The acquisition of domestic firms by foreigners on the Nairobi Stock Exchange is restricted. Foreigners are only allowed to own 40 per cent (raised from 20 per cent in August 1995) of the shares of a local company and any single investor may own 5 per cent. Under the Restrictive Trade Practices, Monopolies and Price Control Act of 1989, there are restrictions on

the purchase of a firm by a firm in the same industry and the merger of two or more firms in the same industry.

There are no restrictions on the foreign purchase of real estate except for agricultural land and sea-front plots.

Locally registered foreign-controlled companies are not discriminated against in terms of taxation. All locally registered companies are taxed at a rate of 35 per cent. When withholding tax is taken into consideration, the effective rate is 41.5 per cent for foreign firms. Branches of foreign firms are taxed at 42.5 per cent. Income is defined as total worldwide income, less expenses incurred in the generation of that income. No credit is given for taxes paid on that income unless the country in which the tax was paid has a double-taxation treaty with Kenya.

Currently there are taxation treaties in place with eight countries: Canada, Denmark, Germany, Norway, Sweden, the United Kingdom and Zambia. None of the treaties reduces the withholding on dividend or interest remittances paid to non-residents. Only three provide for a reduction in the 20 per cent withholding on royalties and management fees. Treaty rates are lower for Canada at 15 per cent for both royalties and fees; the United Kingdom at 15 per cent for royalties and 12.5 per cent for fees; and India at 17.5 per cent for fees.

Public enterprise reform and privatization

As noted above, one of the principal objectives of Kenya's investment policy is the privatization of 207 of the 240 parastatal enterprises. By the 1980s, it was clear that the parastatal enterprises were not achieving their primary objectives and were far less efficient and productive than enterprises in the private sector. All parastatals received direct and indirect subsidies from the government and number of them were large loss makers. In June 1982, a working party was formed to study government expenditure. The result of that, as indicated by subsequent studies, was that the poor performance of the parastatals accounted for a large portion of the domestic budget deficit. Divestiture of many and full privatization of other parastatals was recommended.

The following summarizes an analysis of the parastatal sector in the years 1986-1991 conducted by the World Bank.[27/]

Efficiency indicators (1986-1991)

Total value added (annual percentage)	0.5
Value added in manufacturing (annual percentage)	-0.1
Change in total factor productivity (annual percentage)	-0.7
Growth rate of labour use/growth rate of labour use in the private sector	0.6
Growth rate of capital inputs/growth rate of capital in the private sector	2.1

Relationship to budget and external accounts (1986-1991)

Net lending and equity to parastatals/overall net lending by government (percentage)	35.4
Profits, interest and dividend payments/tax revenue	3.7
Parastatal external debt/total public and public guaranteed debt (1990) (percentage)	17.0
Parastatal external debt servicing/total (1990) (percentage)	25.5
Net exports of parastatals/total net exports (percentage)	-27.7

Relationship to Banks and Non-Bank Financial Institutions (1986-1991)

Parastatal deposits/total commercial bank deposits	6.7
Parastatal deposits/total NBFI deposits	10.0
Parastatal credit/commercial bank credit	6.0
Parastatal credit/NBFI credit	1.3

In 1991, the process of privatization was established in Kenya under the administration of the Parastatal Reform Programme Committee (PRPC) which is under the chairmanship of the minister of finance. The Executive Secretariat and Technical Unit (ESTU) of the PRPC coordinates and manages the programme.

The goals of privatization in Kenya are to:

- enhance the role of private sector in the economy;
- reduce the demand of public enterprises on the Treasury;
- rationalize the operations of public enterprises;
- improve the regulatory environment; and
- broaden the base of ownership and enhance the capital markets.

Under Kenyan law, several methods may be used to privatize a state-owned enterprise:

- public offering (IPO) of shares on the Nairobi Stock Exchange;
- the sale of shares through a private placement;
- negotiated trade sales in so far as preemption rights exist and have been exercised;
- sale of enterprise assets (including liquidation);
- new private investment in enterprises;
- employee/management buy-out; and
- leasing or award of management contract.

By October 1994, 69 enterprises had been disposed of the following way:

Liquidation (dormant and insolvent enterprises)	26
Preemptive rights	20
Receivership	7
Voluntary liquidation	6
IPO	5
Competitive bidding	5

According to the Policy Paper on Public Enterprise Reform, of October 1994,[28/] a further 58 enterprises were slated for privatization through preemptive rights, 26 through competitive bidding, and 19 via IPOs. The privatization method for eight enterprises had not yet been chosen.

As has been the case in all country's undertaking such a policy, it has not been without its critics. On the domestic side, complaints have ranged, as one would expect, from accusations that the country's "crown jewels" are being sold too cheaply, to the country is "selling out" to white foreigners. On the international side the complaints are mainly that the process is moving too slowly, especially in the eyes of the multi- and bilateral donors.

Largely in response to the complaints of a lack of transparency and speed, the government published the October 1994 policy paper on privatization. This paper spelled out in detail its intent to follow a strict set of rules regarding the procedures for privatization, including the publication of the criteria to be used to asses bids.

Box I.B. Procedures governing Kenyan privatization

1. Enterprises will be divested into competitive markets; intact or unregulated monopolies will not be sold.

2. Buyers will not receive special protection or access to credit on concessionary term.

3. In cases where the government retains a minority share, it will not exercise any special or extraordinary voting rights, except in limited, predetermined and well defined policy areas.

4. Excluding financial and operational (but not physical) restructuring that are necessary to prepare state enterprises for sale, there will be a moratorium on new government investments in enterprises that are to be privatized.

5. All privatization sales will be on a cash-only basis, with the possible exception of shares sold to employees of the firm.

6. No specific class of potential purchasers will be excluded from the process.

7. All transactions will be conducted in an open and transparent manner, consistent with normal standards of commercial discretion. Unless justified by the existence of legal rights, no predetermined direct sale or negotiations by private treaty will be entertained except after publicly solicited bids have been obtained. Upon completion of the sale, all aspects of the transaction will be in the public domain where appropriate, this means:

   - a prospectus or offering memorandum will be prepared and published for each firm to be sold;
   - full financial, management and other information will be available to the investing public;
   - fair and equitable bidding procedures will be established;
   - criteria for ranking bids will be established and published;
   - bids will be opened in public;
   - upon the completion of the sale, the names of the purchasers, the price paid and conditions of the sale will be made public; and
   - the valuation of the assets and details of the offer received will be in the public domain.

8. To promote and ensure competitiveness of the markets in which privatized companies operate, the government will continue to build upon existing anti-monopoly legislation and the institutional capacity to implement it in a transparent manner, including publicizing it.

9. The sale of a public enterprise or portion thereof to another public enterprise or public institution will not be considered as privatization.

10. No new parastatal will be established in the productive sector except for investments made purely for venture capital assistance through the restructured development finance institutions.

Again in the 1995 Budget Speech, the Minister of Finance Mr. Mudavadi pledged to speed the process of privatization. By June of 1995, a total of 61 enterprises had been sold generating KSh20 million for the Treasury and KSh100 million for the Industrial Development Bank (IDB), Industrial and Commercial Development Corporation (ICDC), Kenya Tourism Development Corporation and other holding companies. By the end of 1997, the government hopes to have sold its holdings in all but 33 strategic enterprises. For the purposes of the retention of state ownership, strategic enterprises are defined as those which provide essential services or play a key role in terms of national security, health and environmental protection.

Enterprises slated for privatization[29/] include the country's six sugar companies, and enterprises in the textile, cement, hotel, banking, retail food markets, wines and spirits imports, insurance and real estate sectors. The government's stake in the 39 tea processing facilities are also to be privatized through the sale to small holders.

Those enterprises to remain in state hands include utilities, railways and the postal authority. The telecommunications portion of the Kenya Post and Telecommunications (KP&T) is to be spilt off and sold. In fact, the delay in privatizing this portion of KP&T has been the cause of some tension between the government and several of the donor organizations and countries.

Because much of what is needed in these enterprises, as is generally the case in state-owned enterprises worldwide, is the inflow of new technology, management know-how and investment, and with the lack of funds available in Kenya, the obvious place to turn is to foreign strategic investors. Foreign participation and interest in the process has been limited thus far, however. Of the 69 enterprises sold or liquidated by October 1994, foreign participation was almost exclusively limited to the buy-out of the government's share of an existing joint venture.

Under the procedure and plan established in the October 1994 policy paper, five parastatals that have a major impact on the economy have been chosen for immediate restructuring. The responsibility for restructuring these enterprises falls to the Department of Government Investments and Public Enterprises (DGIPE) within the Ministry of Finance. DGIPE will represent the government's ownership rights in public enterprises with minority state shares and take the oversight and leadership role in those where the state has majority holdings. DGIPE will devise and execute the restructuring of these enterprises, and in the long term, be responsible for monitoring their performance, carrying out effective debt management, as well as providing a controlling and accountability function for all budgetary allocations to the parastatals.

Selected institutions supporting industrial development

Investment Promotion Centre (IPC): Created by an Act of Parliament, the IPC serves as a primary point of contact for both domestic and foreign investors exploring the investment opportunities in the country. Among other things, the IPC provides basic information on: the investment climate; investment regulations; major investment opportunities; advice on obtaining finance; and assistance in arranging site visits. The IPC can also provide approval for projects so that investment may begin while the required licenses are being applied for.

African Project Development Facility (APDF): APDF was established jointly by the IFC, UNDP, USAID and the ADB to support medium-sized African-owned projects. Assistance is offered in project preparation, locating joint venture partners and negotiating project finance.

Federation of Kenya Employers (FKE): The FKE was established in 1959 under the Trade Unions Act as an association to represent the collective interests of the country's employers. Its major objective is to defend the interest of employers while at the same time raising their consciousness of the importance of promoting increased labour productivity, sound management practice, better industrial relations, fair labour practices, effective work organization and staff motivation in the realization of their firms' full potential. FKE has also sponsored several programmes aimed at the support and development of industry in Kenya. The **Small Enterprise Development Programme** is one such programme FKE developed to promote the improvement

in the performance of small enterprises. It provides productivity and quality improvement programmes, provides a data base and networking of business information. It also offers management consultancy, legal aid and technology services. It will assist in the preparation of feasibility studies, improvement in marketing techniques, and provide subcontracting and credit advisory services. It also helps to facilitate the transfer of technology from large to small enterprises and between small-scale enterprises, and offers training and follow up advise on business management. FKE has several other initiatives aimed at supporting industrial development including the **Total Quality Management Programme** and various other technical and management training programmes.

Kenya Association of Manufacturers (KAM): KAM was established in 1959 as a corporate body bringing together industrialists in an organization aimed at encouraging investment and the development of Kenya's industrial potential. KAM has sponsored several studies of the constraints facing Kenya industry and lobbied government with its findings.

Kenya National Chamber of Commerce and Industry (KNCCI): The Kenya Chamber of Commerce and Industry was established in 1965 and functions in the same manner as Chambers across the world. It provides information and other support services to its industrial, commercial and service sector members. KNCCI has branches throughout the country.

Kenya Small Traders Society (KSTS): With 4,000 members drawn from small enterprises, KSTS functions as a lobbying association for small business interests.

Kenya Industrial Research and Development Institute (KIRDI): Established in 1949, KIRDI was reorganized in 1975. As well as conducting research, KIRDI provides advice to industry on existing technologies and appropriate technology choice. It also works to modify and adapt foreign technologies to domestic uses and identify local technology needs.

Export Promotion Council (EPC): This Presidential Council was established in 1992 with purpose of promoting exports and the development of export industries. As an independent council, it supports exporters to overcome the obstacles and bottlenecks facing them to increase their export performance though advice and the identification of new markets for Kenyan production. It also drafts legislation for consideration by Parliament and makes suggestions on the development of incentives and regulation changes that will encourage exports further.

Kenya Exporters Assistance Scheme (KEAS): KEAS is a World Bank-financed project which provides financial, technical, and marketing assistance to small and medium enterprises manufacturing non-traditional exports. Its primary goal is to help raise the quality of these exports.

Kenya Exporter Development Support (KEDS): KEDS is funded by USAID and supports the development and growth of non-traditional exports. Technical and financial assistance is provided to both public and private sector institutions. Focus is primarily on small and medium manufacturing enterprises, agri-business and trading sectors.

The Horticultural Crops Development Authority (HCDA): HCDA aims to facilitate the promotion of horticulture through the dissemination of market information, organizing groups of small growers, advising growers, processors and exporters, and providing technical training on the proper use of inputs and post-harvest handling techniques. HDCA also monitors movements in horticultural prices.

Selected institutions providing financial support to industrial development

Industrial Development Bank (IDB): IDB is a government funded financial institution established to promote the expansion and modernization of medium and large industrial enterprises. IDB provides medium- and long-term loans, direct equity investments and loan guarantees for projects in mining, agro-industries, engineering, tourism, transport, shipping and other sectors. IDB

provides working capital and corporate advisory services. IDB does not normally finance more than 50 per cent of a project, or loan or invest more than KSh75 million. Loans are made on the basis of sound financial practice and at market rates. The Bank is limited to holding no more than 20 per cent of its portfolio in any one sector.

Industrial and Commercial Development Corporation(ICDC): Founded in 1954, ICDC has acted as the government's primary means of investing in joint ventures with both local and foreign partners. In its early years, ICDC established many programmes that provided funding for small-scale projects. In recent years, however, it has undergone a restructuring and it is now focused on larger projects. ICDC is mandated to provide venture capital in a minority position, secured long-term loans and export financing, and management advisory services. ICDC will normally lend up to 2/3 of the secured value of loans between KSh5 million and KSh10 million in size for industrial projects and KSh200,000 and KSh10 million for commercial loans. Loans are for terms of 5 to 10 years and at market rates. The ICDC will not undertake equity stakes greater than 40 per cent. Amounts also will range between KSh5 million and KSh10 million. ICDC targets disposal of the investment in three to six years, but not longer than 10 years. Although considered venture capital financing, most of ICDC's equity investment is provided to existing companies, with only a limited portion going to start-up ventures.

Development Finance Company of Kenya (DFCK): DFCK is a joint venture between Kenya (through the ICDC) and the Netherlands Overseas Finance Company (FMO), the German Development Bank (DEG), and the International Finance Corporation (IFC). DFCK provides medium-term shilling and foreign currency financing for industrial, agro-processing and tourism sector projects.

East African Development Bank (EADB): Owned primarily by the governments of Kenya, the United Republic of Tanzania and Uganda, the EADB provides medium- and long-term foreign currency denominated loans to projects in the region.

Kenya Industrial Estates (KIE): KIE is the main government-owned financing facility aimed at providing term loans to the country's smaller enterprises. Established in 1967 as part of the ICDC, it was officially split off from the parent institution in 1975. Since 1988, KIE has had a programme in place to lend to the informal sector. KIE has traditionally provided loans on soft terms, but is now undergoing a restructuring that will eliminate much of this subsidized element in its activities.

Small Enterprise Finance Company (SEFCO): SEFCO was established in 1983 by a group of development finance institutions and is largely dependent upon its foreign partners for capital. Current SEFCO programmes include the Craftsmen Credit Guarantee Scheme and the Individual Credit Guarantee Scheme.

International Finance Corporation (IFC): The IFC provides finance to private sector projects in the agricultural, manufacturing and tourism sectors. Both loans and equity investments are available. Most IFC participation is for greater than $20 million and will not cover more than 25 per cent of the cost of a project. Loans are generally made in foreign currency. The IFC also manages the **Africa Enterprise Fund (AEF)** which is designed to support projects with smaller financial requirements.

Industrial Promotion Services Ltd. (IPS): IPS is a venture capital company owned jointly by the Aga Khan, the IFC, Kenya Commercial Bank and a United Kingdom merchant bank. IPS offers equity investments up to 40 per cent of the share capital of a company, loans and management assistance. IPS will also assist in project development and the location of technical know-how.

Economic Development for Equatorial and Southern Africa (EDESA): EDESA provides medium- and long-term financing in both local and foreign currencies. It will put together individual packages of funding for start-up, rehabilitation and expansion activities, including loans, convertible loans, guarantees and equity.

Other Financial Support Schemes:

Barclays Bank: One of the few commercial banks active in lending to the *jua kali* sector, Barclays established a small business unit in 1988 to on-lend funds from the USAID (especially Rural Private Enterprise Fund/RPE monies) and ODA. It also works with the Kenya Women's Finance Trust (KWFT) in administering a programme of lending to women entrepreneurs.

Kenya Commercial Bank (KCB): With the largest network of branches in the country, and predominantly government owned, KCB has participated in the USAID funded RPE and guarantee schemes. The bank also runs the Jua Kali Credit Scheme.

NOTES TO CHAPTER I

1/ By January 1993, Kenya was sheltering an estimated half-million refugees, 400,000 of whom were from Somalia. Approximately 80,000 were from Ethiopia and a further 20,000 from Sudan. Europa Publications Ltd., *Africa South of the Sahara 1995,* London, October 1994, p. 491.

2/ Europa Publications Ltd, *Africa South of the Sahara 1995,* London, October 1994, p. 485.

3/ Fertility rates dropped from 7.9 per cent in 1981 to 5.4 per cent in 1991 and are forecast by Kenyan authorities to drop further to 4.1 per cent in 2000 and 3.3 per cent in 2010. A slower population growth rate is also expected to result from the increase in the number of early deaths due to the HIV/AIDS epidemic. The incidence of HIV is still spreading rapidly, and by the year 2000, Kenyan authorities expect the number of AIDS related premature deaths to reach 900,000. By the year 2010, they are expecting a staggering 2.8 million premature deaths. These forecasts incorporate an assumption that the spread of the disease will not slow until the year 1997, when they expect a change in sexual behavior to begin as a result of increased awareness of the disease. Republic of Kenya, *Sessional Paper No. 1 of 1994 on Recovery and Sustainable Development to the Year 2010,* p. 24.

4/ Republic of Kenya, *Sessional Paper No. 1 of 1994 on Recovery and Sustainable Development to the Year 2010,* p. 25.

5/ Low potential lands are those with less than 612.5 mm of rainfall annually. Medium potential lands are those with 735 mm to 857.5 mm of annual rainfall (up to 980 mm in the Coast Province and only 612.5 mm to 857.5 mm in the Eastern Province). High potential lands are those with greater than 857.5 mm of annual rainfall, or more than 980 mm in the Coast Province.

6/ Kenyan customs authorities seized 13,000 tonnes of Brazilian sugar which the importer claimed was for delivery to the International Committee of the Red Cross, an organization which had not imported sugar for over ten years. In response to this and claims by the largest sugar producer in the country that it was unable to sell 70 tonnes of its daily 800 tonne output, Kenyan authorities raised the sugar development levy on imported sugar from 5 to 20 per cent. Those importers who did not wish to pay the levy were given permission to re-export the sugar.

7/ Republic of Kenya, *Development Plan 1994-1996,* p. 22.

8/ Deloitte Haskins & Sells Management Consultants Ltd. and African Development and Economic Consultants Ltd., *The Present and Future Financing Needs of the Industrial Sector in Kenya,* May 1992.

9/ One of the greatest constraints the Deloitte Haskins & Sells study identified is the lack of medium- or long-term lending by the domestic financial sector. Commercial banks tend to limit their lending to term loans of up to one year and overdrafts. Continuity is then provided by the rolling over these facilities. Non-bank financial institutions tend to lend for longer but still inadequate terms. Rarely do their loans extend for more than five years. This has left Kenya businesses dependent on development financial institutions, mostly foreign, for long-term funds. Few businesses have been able to go to the Nairobi Stock Exchange for equity financing.

10/ World Bank, *World Debt Tables 1994-95, Volume 2 Country Tables,* Washington D.C., p. 242.

11/ Republic of Kenya, *Sessional Paper No.1 of 1994 on Recovery and Sustainable Development to the Year 2010,* Nairobi, 1994, p. 3.

12/ Republic of Kenya, *Sessional Paper No.1 of 1994 on Recovery and Sustainable Development to the Year 2010,* Nairobi, 1994, pp. 8-9.

13/ Republic of Kenya, Central Bureau of Statistics, *Economic Survey 1995,* p. 78.

14/ Republic of Kenya, *Sessional Paper No.1 of 1994 on Recovery and Sustainable Development to the Year 2010,* Nairobi, 1994, p. 28.

15/ The Economist Intelligence Unit, *Investing Licensing & Trading Conditions Abroad, Kenya 1995,* New York, March, 1995, p. 24.

16/ This theme has been reiterated in several government economic policy documents including *Sessional Paper No. 1 of 1994, the Development Plan 1994-1996* and the *Budget Speech* by the Minister of Finance in June 1995.

17/ Restrictions remain on certain goods including the prohibition of bones, horns, teeth and ivory of animals on the endangered species list, coral and sea shells, and nuclear and other toxic waste. Approval is required for weapons, ammunition and fireworks. Technical, sanitary, health and environmental standards must be met for the importation of live animals, fish, plants and some chemicals.

18/ This was a major finding of the Deloitte Haskins & Sells and African Development and Economic Consultants study and they strongly recommended the further liberalization of exchange controls.

19/ Republic of Kenya, *Development Plan 1994-1996,* p. 204.

20/ The Economist Intelligence Unit, *Investing Licensing & Trading Conditions Abroad, Kenya 1995,* New York, March, 1995, p. 14.

21/ Republic of Kenya, National Investment Committee, *Kenya: A Guide for Investors.*

22/ The document was entitled *Strategy for Small Scale and Jua Kali Enterprise Development in Kenya: Towards the Year 2000.*

23/ Republic of Kenya, Ministry of Planning and National Development, *Policy and Strategy for Small Scale and Jua Kali Enterprise Development in Kenya: Action Plan 1994-1996,* Nairobi, October 1994.

24/ UNIDO national consultant.

25/ The Economist Intelligence Unit, *Investing Licensing & Trading Conditions Abroad, Kenya 1995,* New York, March, 1995, p. 9.

26/ For example, insurance firms with a capitalization of Ksh 5-10 million require Kenyan ownership of 51 per cent of the first Ksh 5 million and 15.67 per cent of the excess. One-third Kenyan ownership is required for insurance firms with a capital greater than Ksh 10 million. The Economist Intelligence Unit, *Investing Licensing & Trading Conditions Abroad, Kenya 1995,* New York, March, 1995, p. 14.

27/ World Bank, *Kenya Poverty Assessment,* Washington D.C., 15 March 1995, pp. 5-6.

28/ Republic of Kenya, Department of Government Investments and Public Enterprises, *Policy Paper of Public Enterprise Reform and Privatization,* October 1994.

29/ Republic of Kenya, Ministry of Finance, *Budget Speech for the Fiscal Year 1995/96*, June 1995.

II. THE MANUFACTURING SECTOR

A. GROWTH AND STRUCTURAL CHANGE

Growth

In the early years following independence (the 1960s) Kenya's manufacturing sector grew rapidly. Up until 1985, government policy was aimed at promoting manufacturing for import substitution and incentives favoured the domestic market. Production was skewed towards consumer goods such as food processing, beverages, electrical appliances and machinery, paper products, printing, sugar and confectionary, and petroleum products.

Manufacturing growth began to stagnate in the 1980s, and by 1986 it was clear to government officials that they were facing major structural problems in the economy. With *Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth*, policy was switched to that of promoting export development as a means of easing the foreign currency constraint industry was facing and lessening the dependence of the country on a few commodity exports. Thus, in 1986, the liberalization of trade was begun.

The key element of the new policy was that manufacturing would become the driver of the economy. Extremely ambitious targets rates of growth were established for both the economy as a whole and for manufacturing in particular. From 1988 to the year 2000, manufacturing was expected to rise at an annual rate of 7.5 per cent. GDP at factor cost was targeted for 5.9 per cent per annum growth. As can be seen in Table II.1, that despite the initial good response to the new initiatives, it was immediately clear that these targets would not be met.

Table II.1. Trends in manufacturing, 1975-1994, selected years

	1975	1980	1985	1990	1991	1992	1993	1994
MVA (million KSh)	127.0	295.0	518.4	987.4	1,167.4	1,230.7	1,419.7	1,696.5
MVA (million KSh 1980 prices)	168.9	295.0	356.4	470.7	489.2	495.3	504.2	513.8
Real growth of MVA (percentage)	..	5.1	4.5	5.3	3.9	1.3	1.8	1.9
Share of manufacturing in total output (percentage)	11.8	12.6	11.7	11.8	12.2	11.2	10.4	10.5

Sources: UNIDO, Industrial Development Reviews Information Database; Republic of Kenya, Central Bureau of Statistics, and World Bank, *Kenya Poverty Assessment*, March 1995.

Increased growth returned to the manufacturing by the end of 1986, 5.9 per cent versus 1985's 4.5 per cent, and continued to be strong at 5.6 per cent in 1987 and 6.1 per cent in 1988. But by 1989, the trend had again reversed and the rate of growth was slowing. By 1991, it was clear that the sector was still facing major problems and growth has dropped to 3.9 per cent. Export industries had not taken up the slack resulting from the adverse effect import liberalization was having on domestic industries such as textiles.

The situation was exacerbated in 1991-1993 with poor weather conditions which effected agricultural output and had a negative effect on the agro-based industries. Drought conditions also effected the generation of hydro-power, and power shortages led to a decreased output across almost all industrial sectors.

Industries with large foreign exchange requirements, such as metal products, saw output boosted by the moves to liberalize trade and an increased availability of foreign exchange. Strong export demand and growth in the demand from the domestic *jua kali* sector also helped support the sector's performance in 1994.

The transport equipment sector has suffered in recent years due to the increased cost of imports and a decrease in world demand. The sector's rise in 1994 followed three years of sharp contractions. The performance of the paper sector has been effected by the increase in demand for plastic packaging as a substitute to paper packaging.

Table II.2. Manufacturing production by sector, 1987-1994
(1976 = 100)

Industry	1987	1988	1989	1990	1991	1992	1993	1994
Meat and dairy	115.3	127.9	130.9	139.9	125.1	94.0	95.8	87.0
Canned foods, oils and fats	268.1	267.7	291.1	320.9	363.4	338.9	384.4	275.0
Milled grain products	198.3	224.7	175.5	177.9	178.1	170.5	154.8	204.8
Baked goods	151.5	155.4	155.1	158.1	166.1	172.9	178.5	274.5
Sugar and confectionery	189.5	201.5	210.0	203.1	210.6	195.7	198.3	156.8
Miscellaneous foods	189.7	224.7	225.6	226.8	227.4	236.7	220.0	225.9
Total food processing	157.8	167.5	171.0	173.2	174.7	168.3	168.2	167.7
Beverages	196.9	207.9	210.3	218.0	210.8	245.0	243.4	225.2
Tobacco	170.8	178.1	178.6	178.2	173.5	192.8	194.8	196.2
Total beverages and tobacco	194.3	201.9	204.1	210.7	203.9	235.7	234.6	219.3
Textiles	192.5	197.2	202.3	227.8	218.5	218.5	252.0	186.9
Clothing	359.8	368.3	378.6	347.2	323.6	320.6	292.4	183.9
Leather and footwear	83.5	88.1	94.7	99.2	101.5	97.1	87.9	96.8
Wood and cork products	68.1	66.4	68.1	70.2	73.1	74.0	73.7	76.0
Furniture and fixtures	73.5	72.7	72.9	73.7	70.8	46.8	49.6	50.6
Paper and paper products	170.0	189.3	194.7	203.9	214.6	257.7	180.5	155.6
Printing and publishing	372.2	389.1	392.9	401.8	405.8	411.2	411.2	424.8
Basic chemicals	170.0	182.1	198.1	211.3	233.8	234.0	244.6	213.0
Petroleum and other chemicals	303.5	342.9	396.0	457.8	510.7	481.8	69.2	453.6
Rubber products	277.0	286.3	308.7	325.9	322.4	630.3	622.4	613.7
Plastics	212.3	202.8	219.1	227.4	274.3	323.7	357.2	362.6
Clay and glass	291.7	306.5	338.1	367.2	259.3	575.2	1,199.0	1,770.6
Non-metallic minerals	142.7	140.7	147.0	167.1	174.4	205.7	201.5	211.7
Metals	116.2	133.1	154.6	177.0	203.1	183.8	184.2	205.0
Non-electric machinery	127.9	138.7	132.8	103.8	101.0	95.3	94.6	100.3
Electrical equipment	168.4	189.3	193.8	190.3	259.7	251.5	224.5	226.2
Transport equipment	547.4	612.4	638.0	673.5	662.0	603.7	541.2	571.4
Miscellaneous manufactures	336.0	360.3	375.0	406.1	441.0	442.9	442.9	442.9
Total manufacturing	**199.4**	**211.3**	**223.8**	**235.6**	**242.3**	**245.4**	**249.9**	**254.7**

Source: Republic of Kenya, Central Bureau of Statistics.

Structural change

Despite the change in government policy to promote export industries over import industries beginning in the late 1980s, there has been relatively little change in the structure of the manufacturing sector in terms of subsector contributions to total manufacturing output. The importance of food processing has increased, in 1975 food products accounted for 23.42 per cent of manufacturing, in 1994 their share was 30.16 per cent. The share of beverages rose only modestly, from 10.41 per cent in 1975, to 11.51 per cent in 1994.

The only other sectors to change in relative importance to any extent are transport equipment and electrical machinery. Transport equipment's share of total manufacturing value added dropped from 7.51 per cent in 1975, to just 3.97 per cent in 1994. Electrical machinery rose over the period from accounting for just 3.75 per cent of total manufacturing value-added, to accounting for 5.36 per cent.

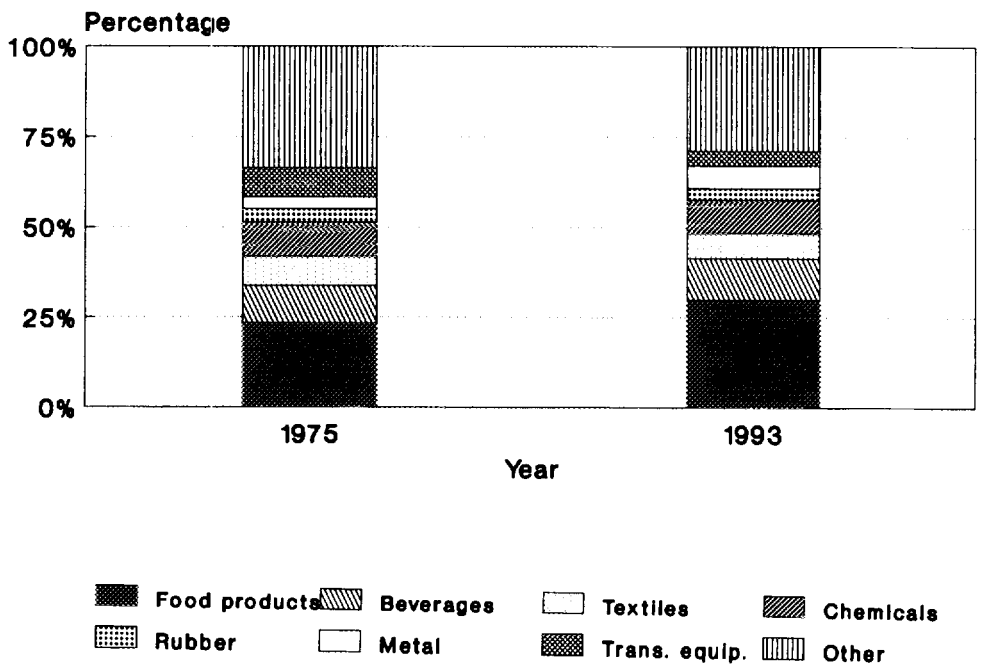
There has also been relatively little change in the size structure of Kenyan manufacturing. The vast majority of manufacturing establishments remain small in size, less than 50 employees. The number of large scale enterprises, greater than 50 employees has risen slowly, but steadily in recent years, however. According to one classification, in 1986 there were 609 establishments (places of work rather than firms), employing 142,253 persons. By 1990, the number of establishments had risen to 647, and employment was 166,276. A second classification excluding public sector establishments, placed the number of establishments in the modern sector with greater than 50 employees at 612 in 1990, out of a total of 2,002 establishments.[1/]

Table II.3. Branch share in total manufacturing value added, 1975-1993, selected years
(Percentage)

	1975	1980	1985	1990	1991	1992	1993
Food products	23.42	23.90	27.84	27.66	28.75	30.15	30.16
Beverages	10.41	10.36	12.91	11.20	11.58	11.45	11.51
Textiles	5.64	7.10	6.27	6.03	5.83	5.50	5.49
Clothing (non-footwear)	2.57	2.11	2.77	1.72	1.70	1.60	1.59
Leather and leather substitutes	0.47	0.80	0.37	0.48	0.49	0.61	0.46
Leather footwear	1.04	1.49	0.92	1.44	0.89	1.30	1.32
Wood and cork products	2.31	2.53	2.03	1.82	1.78	1.68	1.72
Furniture and wood fixtures	1.70	1.25	1.48	1.24	1.22	1.30	1.26
Paper and paper products	3.11	4.47	3.50	4.59	4.37	4.20	4.23
Printing and publishing	4.43	3.08	2.95	2.97	3.00	2.82	2.78
Industrial chemicals	3.58	2.94	2.40	1.91	1.86	1.83	1.85
Non-industrial chemicals	6.06	5.30	7.56	7.37	7.13	7.25	7.47
Petroleum refineries	4.04	1.16	0.92	0.77	0.81	0.76	0.79
Rubber products	3.25	3.15	4.06	3.64	3.56	3.28	3.31
Plastic products	1.33	1.70	2.03	2.68	2.83	3.21	3.17
Pottery, china and earthenware	0.07	0.07	0.18	0.10	0.08	0.08	0.07
Glass and glass products	0.50	0.42	0.55	0.57	0.49	0.53	0.46
Non-metallic minerals	5.35	2.87	4.61	4.59	4.54	4.27	4.30
Basic iron and steel	1.20	1.21	0.18	0.29	0.24	0.30	0.38
Metal products (non-machinery)	5.84	5.92	4.42	6.99	6.88	6.57	6.22
Non-electrical machinery	0.99	0.76	0.55	0.57	0.57	0.53	0.53
Electrical machinery	3.75	6.79	5.35	4.79	5.18	5.34	5.36
Transport equipment	7.51	9.53	4.61	4.31	4.21	3.97	3.97
Professional and scientific equipment	..	..	0.07	0.06	0.08	0.10	0.13
Miscellaneous manufacturing	1.43	1.07	1.48	2.20	1.94	1.76	1.98

Source: UNIDO, Industrial Development Reviews Information Database.

Fig. II.A. Structure of MVA, 1975 and 1993
(Percentage)



B. INDUSTRIAL EMPLOYMENT

Quantitative trends

Employment in the manufacturing sector in Kenya has increased in recent years, but at a very disappointing rate. While growth in manufacturing employment was strong in the late 1970s, by the early 1980s it had slowed significantly. Between 1981 and 1985, the growth of manufacturing wage employment was just 2.2 per cent. Over the period the share of total wage employment that manufacturing accounted for dropped from 14.3 per cent to 13.4 per cent.

Table II.4. Persons engaged, recorded totals, 1981-1994, selected years
(Thousand)

	1981	1990	1994
Modern establishments: urban and rural areas - wage employees	1,024.3	1,409.3	1,504.4
Self-employed and unpaid family workers	62.1	48.2	58.3
Informal sector	157.3	436.6	1,792.4
Total	**1,243.7**	**1,894.2**	**3,355.1**

Source: Republic of Kenya, Central Bureau of Statistics.

Fig. II.B. Manufacturing employment, 1981, 1990 and 1994

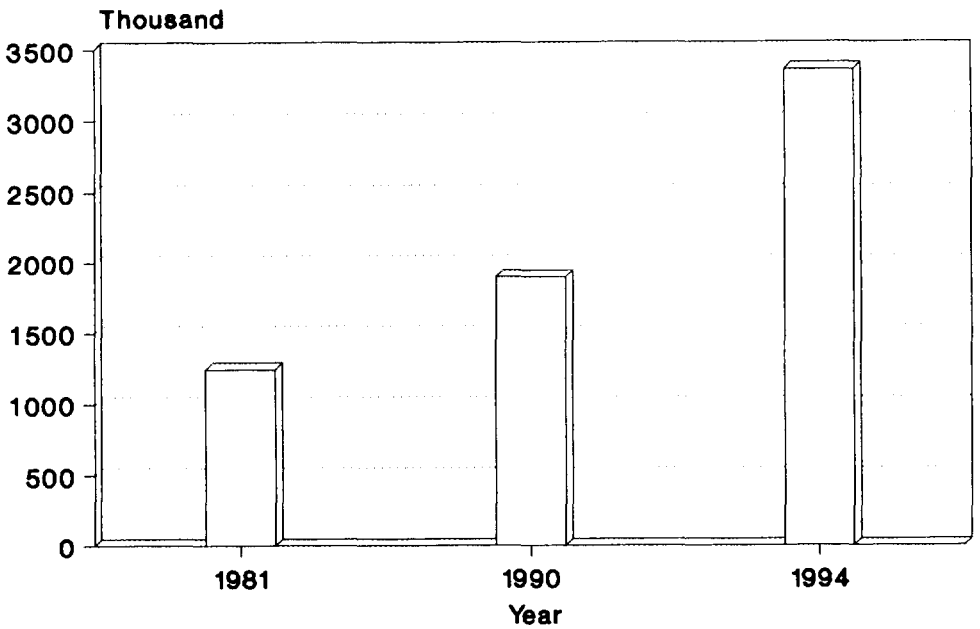


Table II.5. Wage employment by industry, 1981-1994, selected years
(Thousand)

	1981		1990		1994	
	Private	Public	Private	Public	Private	Public
Agriculture and forestry	173.6	61.9	202.4	67.3	212.8	67.9
Mining and quarrying	1.5	0.7	3.4	0.7	3.9	0.7
Manufacturing	116.7	29.6	146.1	41.6	158.3	39.3
Electricity and water	0.2	10.0	0.5	21.9	1.2	20.8
Building and construction	32.6	28.7	36.8	34.6	44.0	29.3
Wholesale and retail trade, restaurants and hotels	67.7	4.9	104.6	9.3	119.7	6.9
Transport and communication	18.9	36.5	25.5	49.0	37.2	40.7
Finance, insurance, real estate and business services	31.1	8.4	47.1	18.2	57.1	17.9
Community, social and personal services	97.9	303.4	142.5	457.8	182.6	464.1
Total	**540.2**	**484.1**	**708.9**	**700.4**	**810.8**	**687.6**
Total employment	1,024.3		1,409.3		1,504.4	

Source: Republic of Kenya, Central Bureau of Statistics.

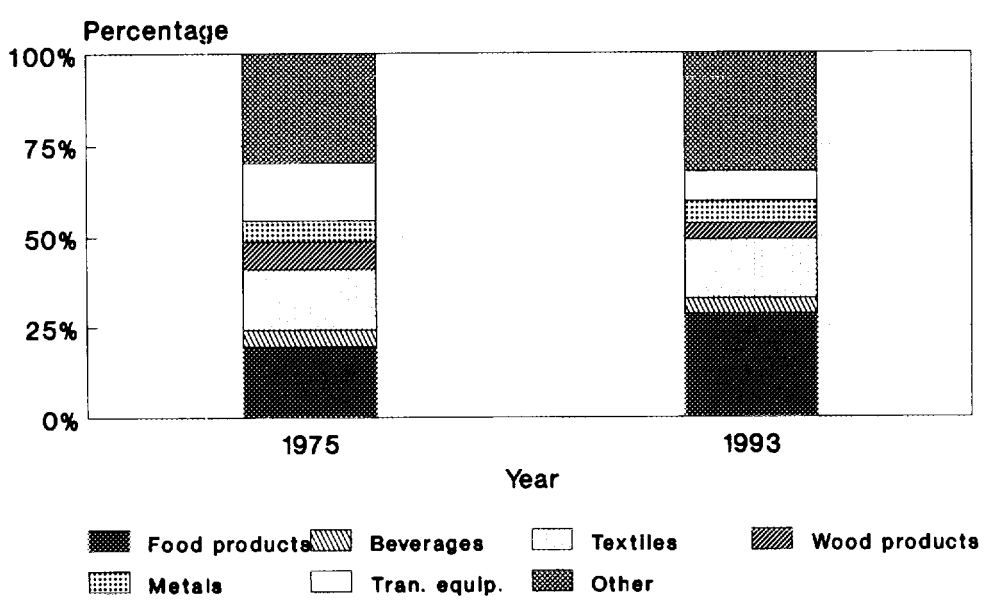
In the second half of the 1980s, the rate of employment creation in manufacturing increased to an average of 2.9 per cent per year, but this was not enough to keep up with the increase in the labour force and the share of manufacturing in total wage employment fell further to 13.2 per cent. Within the manufacturing sector, food processing is the largest employer with 28.64 per cent of the total manufacturing labour force in 1993. This is up significantly from 1985 when the subsector employed only 19.74 per cent of the manufacturing labour force (see Table II.6). The next most important source of manufacturing jobs is the textile industry accounting for 12.99 per cent of total manufacturing employment in 1993. Transport equipment remains an important Kenyan employer at 7.93 per cent of the manufacturing labour force, but this share is down by half from 15.93 per cent in 1975.

Table II.6. Manufacturing employment by branch, 1975-1993, selected years
(Percentage)

	1975	1980	1985	1990	1991	1992	1993
Food products	19.74	24.21	26.15	27.45	28.36	28.25	28.64
Beverages	4.52	3.59	4.78	4.08	4.18	4.20	4.25
Textiles	12.63	13.93	14.37	13.38	12.94	12.93	12.99
Clothing (non-footwear)	4.25	3.77	4.84	3.66	3.67	3.54	3.52
Leather and leather substitutes	1.12	1.05	0.76	0.77	0.77	0.79	0.81
Leather footwear	1.66	1.50	1.25	1.27	1.21	1.19	1.19
Wood and cork products	7.65	6.50	4.95	4.61	4.57	4.49	4.48
Furniture and wood fixtures	2.51	2.15	2.83	2.08	1.98	1.98	1.98
Paper and paper products	3.15	2.45	3.02	3.81	3.81	3.80	3.81
Printing and publishing	4.32	3.15	3.27	3.19	3.11	3.13	3.13
Industrial chemicals	1.90	1.97	2.08	1.90	1.85	1.88	1.87
Non-industrial chemicals	3.15	3.64	4.47	4.62	4.62	4.71	4.83
Petroleum refineries	0.29	0.24	0.20	0.14	0.14	0.14	0.14
Rubber products	1.33	1.38	1.22	1.17	1.22	1.21	1.21
Plastic products	1.15	1.45	1.31	1.82	1.90	2.05	2.09
Pottery, china and earthenware	0.07	0.10	0.14	0.11	0.12	0.13	0.11
Glass and glass products	0.66	0.66	0.80	0.77	0.76	0.76	0.77
Non-metallic minerals	3.58	3.54	3.08	2.88	2.89	2.96	2.95
Basic iron and steel	0.93	1.28	1.38	2.84	2.92	2.94	2.90
Metal products (non-machinery)	5.95	7.60	5.76	6.31	6.29	6.29	6.30
Non-electrical machinery	1.27	1.13	0.85	0.79	0.78	0.78	0.77
Electrical machinery	1.03	1.11	1.41	1.26	1.37	1.46	1.45
Transport equipment	15.93	12.83	9.75	9.10	8.66	8.48	7.93
Professional and scientific equipment	..	..	0.11	0.10	0.11	0.12	0.13
Miscellaneous manufacturing	1.21	0.79	1.23	1.91	1.76	1.80	1.76

Source: UNIDO, Industrial Development Reviews Information Database.

Fig. II.C. Structure of manufacturing employment, 1975 and 1993



Educational background and skill levels

Information relating to the educational and skill level of the industrial labour force does not exist. Extrapolation must be made from data on the entire population.

In 1994, Kenya boasted over 37,000 non-university educational institutions with a total of over 6 million students. Pre-primary schools numbered 19,083 while primary and secondary schools numbered 15,906 and 2,834 respectively. There were also 25 training colleges for primary educators and three for secondary educators.

While over 5 million students were enroled in primary education, only 619,839 attended secondary schools in 1994. Kenya also has three polytechnical institutes which had 10,836 students enroled in 1994. These institutions offer technical training for middle and high level skilled manpower to secondary school leavers and employer-sponsored trainees.

Vocational and technical training is an important component of Kenya's educational system. These institutes aim to provide increased training to school leavers. This training takes place in several different kinds of training institutes such as:

- Youth Polytechnics which offer training to primary school leavers at the artisan level;
- Technical Training Institutes which replaced former technical secondary schools;
- Harambee Institutes of Technology which are community based government assisted institutions; and
- Industrial Training Centres.

The country has five public universities: the University of Nairobi with 12,545 undergraduates and 1,249 postgraduates in the 1993/94 academic year; Moi University with 5,456 undergraduates and 211 postgraduate students; Maseno University College (part of Moi University) with 1,391 undergraduates and four postgraduate students; Kenyatta University with 8,475 undergraduates, 102 in its Masters programme and 11 Doctoral candidates; Jomo Kenyatta University of Agriculture and Technology with 1,553 undergraduates and 30 graduates; and Egerton University with 7,956 enroled students.

There are also 12 private universities in the country that offer degree courses but only three of them are accredited by the government. Most of these have religious affiliation and sponsorship. In the 1994/95 school year they enroled 3,545 students.

While the number of females enroled in primary school is roughly even with that of their male counterparts (49 per cent in 1994), by secondary school age, females have dropped out of the system in significant numbers. Only 46 per cent of secondary students are female. However, a surprisingly large number of women attend university. In 1994, 25.2 per cent of all students in the country's five public universities were women. The number of women enroled at Jomo Kenyatta University of Agriculture and Technology was only 11.3 per cent, the lowest at all the universities.

In an effort to increase the rate of literacy which is currently 69 per cent for the total population (age 15 and above) and 58 per cent for females, Kenya has initiated adult literacy courses. Enrolment totalled 114,278 in 1994, 76.7 per cent of whom were women.

Youth unemployment and the creation of jobs for the labour market's young and inexperienced members is a particular concern due to the rapid rate of increase in the population and the vast numbers of new entrants to the labour pool. In an effort to help these young people get the experience they need to find jobs and support themselves through self-employment, as well as provide the skills needed for development, the government established a National Youth Service. Some 2,000 trainees have been enroled in this programme per year and the 1995/96 budget has allocated increased funds to up the number of participants to 3,000 per year.

The role of women

According to World Bank data, female participation in the labour force has dropped slightly over the past 20 years from 42.2 per cent in 1973 to 39.3 per cent in 1993.[2/] The role of women in the industrial sector is far lower, however. In 1993 and 1994, women accounted for just 12 per cent of total manufacturing employment.

Women also tend to have lower paying jobs. In 1990, women accounted for 24 per cent of those employed individuals earning under KSh215 per annum and only 18 per cent of those earning over KSh3,000 per annum. And women are concentrated in service jobs such as education. Over 57 per cent of female wage employment in 1994 was in the service sector, and 27 per cent in educational services. In 1983, the figures were 58.4 per cent in services and 24 per cent in educational services. In fact, very little change has taken place over the past ten year in the structure of female employment in Kenya.

Table II.7. Industrial wage employment by gender, 1983-1991, selected years
(Thousand)

	1983		1990		1994	
	Male	Female	Male	Female	Male	Female
Agriculture and forestry	195.7	35.4	205.3	64.4	215.4	64.3
Mining and quarrying	3.4	0.1	3.3	0.9	3.4	1.2
Manufacturing	134.8	13.9	166.5	21.2	173.5	24.1
Electricity and water	16.1	1.2	19.3	3.1	19.0	3.0
Building and construction	57.5	2.7	67.4	4.0	69.6	3.7
Wholesale and retail trade, restaurants and hotels	68.9	11.4	95.5	18.5	104.3	22.3
Transport and communication	47.8	7.2	63.8	10.7	66.7	11.2
Finance, insurance, real estate and business services	36.4	9.2	50.8	14.4	57.6	17.4
Community, social and personal services:						
Public administration	116.1	23.9	142.8	41.4	154.1	39.6
Educational services	125.1	46.8	162.5	74.1	163.7	94.4
Domestic services	41.7	15.0	0.6	0.3	40.3	21.8
Other services	54.7	28.3	122.7	55.9	89.2	43.6
Total employment	**898.2**	**195.1**	**1,100.5**	**308.9**	**1,156.8**	**347.6**
Regular	730.8	168.0	962.6	265.8	1,020.9	311.9
Casual	167.4	27.1	137.9	42.7	135.9	35.7

Source: Republic of Kenya, Central Bureau of Statistics.

After services, agriculture is the next largest employer of women with almost 19 per cent of total female wage employment in 1994. In 1983, the figure was 18.14 per cent. Manufacturing employed 7.69 per cent of the female wage earning population in 1983 and 6.93 per cent in 1994. Fifteen per cent of wage earning males are employed in the manufacturing sector.

The issue of the role of women in the development and future of the country has begun to be raised. Efforts are being made to address the constraints to female participation in the modern sector. The government recognizes that previous development projects have tended to marginalize women and their role and the 1994-1996 Seventh Development Plan calls for the establishment and strengthening of "women's desks in key sectors such as Health, Agriculture, Environment, population, Planning, Education, Office of the President, DPM, etc." Noticeably lacking, however, is the mention of a women's desk at the Ministry of Commerce and Industry.

C. PRODUCTIVITY AND OUTPUT

Output

Over the past 20 years, manufacturing value added as a per cent of gross output in the manufacturing sector has declined dramatically. In 1975, the share was 21.88 per cent, by 1993 it was just 9.7 per cent. The decline has been steady, pointing up the critical structural problems facing Kenyan manufacturing. Across all sectors, there is a relatively high physical input cost structure. Those with the highest input cost structure are transport equipment, iron and steel, food products and clothing, which have seen serious deterioration over the period. Those sectors that have traditionally had a lower cost structure are beverages, textiles, leather footwear, printing and publishing, electrical and non-electrical machinery.

Few manufacturing sectors have seen improvement in there cost structure over the years. The share of manufacturing value added in gross profit has risen in the textile sector, from 28.28 per cent in 1975 to 37.55 per cent in 1993. Furniture and wood fixtures has also seen improvement, as has glass and glass products.

Table II.8. Share of manufacturing value added in gross output, by branch, 1975-1993, selected years
(Percentage)

	1975	1980	1985	1990	1991	1992	1993
Food products	18.40	15.69	11.52	8.01	7.92	8.05	6.87
Beverages	37.77	40.51	32.41	28.61	30.04	27.37	24.34
Textiles	28.28	27.86	23.45	51.64	43.38	47.69	37.55
Clothing (non-footwear)	20.16	22.02	21.74	10.98	6.73	9.09	.17
Leather and leather substitutes	19.29	34.86	12.48	24.97	12.49	4.83	11.65
Leather footwear	25.38	41.47	20.85	28.84	19.65	23.93	22.48
Wood and cork products	31.21	29.80	25.58	20.43	20.38	18.04	6.06
Furniture and wood fixtures	24.46	23.99	28.58	34.22	44.13	51.49	5.23
Paper and paper products	20.74	31.39	20.22	26.66	21.69	23.50	8.39
Printing and publishing	28.14	27.05	29.09	36.05	37.37	33.04	8.96
Industrial chemicals	20.01	20.73	14.13	11.37	12.50	10.21	0.89
Non-industrial chemicals	21.22	22.98	20.30	6.78	8.13	8.09	0.43
Petroleum refineries	6.06	2.16	1.20	0.86	0.82	0.69	0.62
Rubber products	46.80	27.66	34.38	24.36	24.17	20.09	17.30
Plastic products	31.08	31.02	25.58	28.28	23.03	23.59	13.75
Pottery, china and earthenware	30.00	32.57	100.00	12.46	50.34	3.33	24.64
Glass and glass products	28.27	25.47	42.84	46.17	46.14	46.72	8.81
Non-metallic minerals	34.86	24.55	26.04	22.85	18.99	18.60	9.34
Basic iron and steel	14.04	11.90	2.05	2.52	1.78	2.09	2.61
Metal products (non-machinery)	26.57	23.75	12.83	19.47	16.86	6.54	15.61
Non-electrical machinery	32.17	28.58	15.00	50.05	50.00	43.81	2.02
Electrical machinery	33.74	41.79	24.17	17.30	16.84	16.71	4.62
Transport equipment	39.85	28.89	12.02	11.06	11.74	10.70	0.55
Professional and scientific equipment	..	..	20.16	6.64	8.50	8.83	10.00
Miscellaneous manufacturing	11.22	24.62	28.58	21.90	16.44	13.86	16.48
Total manufacturing	**21.88**	**21.23**	**15.34**	**11.85**	**11.41**	**11.06**	**9.70**

Source: UNIDO, Industrial Development Reviews Information Database.

Productivity

Labour productivity in Kenya, while not high, has grown steadily. Even in the difficult years of 1991 to 1993, labour productivity continued to increase, if only by marginal amounts. As a percentage of gross output, wage cost has declined steadily (except for 1991) since the early 1980s. Wage cost as a per cent of value-added has also been on a downward trend over the period.

As would be expected, in general the highest level of labour productivity in Kenyan manufacturing occurs in those sectors that are the most modern and have the highest level of capital investment and inputs, and the lowest level of labour inputs. Petroleum refining, electrical equipment, rubber production and the beverages sectors have the highest level of labour productivity. Measured relative to the average labour productivity of manufacturing in total, the index for petroleum refining was 582. This is down, however, from 1,388 in 1975. This decline has been the result not only of a real decline in the labour productivity in this sector, but increases across other sectors.

Table II.9. Growth of labour productivity in manufacturing, 1982-1994, selected years
(Percentage)

	1982	1987	1989	1990	1991	1992	1993	1994
Change in the quantum index of manufacturing	2.2	5.7	5.9	5.3	4.1	1.2	1.8	1.9
Change in the number of manufacturing employees	0.3	2.3	2.8	2.7	0.6	0.4	1.7	2.1
Implicit change in labour productivity	1.9	3.4	3.1	2.6	3.5	0.8	0.1	0.6
Wage cost as a percentage of gross output	6.6	4.6	4.3	3.9	4.1	3.5	3.1	3.0
Wage costs as a percentage of value-added	34.8	33.8	34.5	33.1	35.7	2.1	32.2	32.3

Source: Republic of Kenya, Central Bureau of Statistics.

The beverage industry has seen a modest increase in its relative labour productivity, up from 230 in 1975 to 271 in 1993 in index terms, while electrical machinery has remained constant in the 360-370 range.

Those industries with the lowest level of labour productivity are iron and steel, textiles, clothing, wood and cork products, and transport equipment. The relative productivity of labour in the iron and steel industry has been on a downward trend since 1975, and collapsed in the mid-1980s.

Labour productivity in the textile industry has remained constant in relative terms over the past 20 years. The clothing sector, however, has seen a decline. Wood and cork products, on the other hand, rose in relative terms, peaking in the mid 1980s and then contracting somewhat through 1993. The productivity of labour in the paper sector rose sharply in 1976, following the coming on line of a new plant in 1975 that raised annual production by 30 per cent. As the plant and equipment aged, however, and as demand shifted away from paper packaging to plastics, relative labour productivity has declined.

Table II.10. Index of labour productivity, 1975-1993, selected years
(Total manufacturing = 100)

	1975	1980	1985	1990	1991	1992	1993
Food products	119	99	106	101	101	107	105
Beverages	230	288	270	275	277	273	271
Textiles	45	51	44	45	45	43	42
Clothing (non-footwear)	60	56	57	47	46	45	45
Leather and leather substitutes	42	76	49	62	63	77	57
Leather footwear	63	100	74	113	73	109	112
Wood and cork products	30	39	41	39	39	37	38
Furniture and wood fixtures	68	58	52	60	61	66	63
Paper and paper products	99	183	116	121	115	110	111
Printing and publishing	102	98	90	93	96	90	89
Industrial chemicals	189	149	115	101	101	97	99
Non-industrial chemicals	193	146	169	160	154	154	155
Petroleum refineries	1,388	483	456	544	579	551	582
Rubber products	244	229	333	310	292	272	274
Plastic products	116	117	154	147	149	157	152
Pottery, china and earthenware	99	74	134	86	67	60	57
Glass and glass products	77	64	69	75	64	70	60
Non-metallic minerals	149	81	150	160	157	144	146
Basic iron and steel	129	94	13	10	8	10	13
Metal products (non-machinery)	98	78	77	111	109	104	99
Non-electrical machinery	78	67	65	72	72	69	69
Electrical machinery	363	614	380	379	378	367	370
Transport equipment	47	74	47	47	49	47	50
Professional and scientific equipment	..	..	67	66	67	82	105
Miscellaneous manufacturing	118	137	120	115	110	98	113
Total manufacturing	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: UNIDO, Industrial Development Reviews Information Database.

Profitability

The level of profitability in Kenya is not easily measurable. Most firms are privately held and are not required to publish financial data sufficient to indicate their individual profitability. Only those few firms listed on the Nairobi Stock Exchange are required disclose full financial data. Measured in terms of gross profit as a per cent of manufacturing value-added some rough indications of relative profitability can be ascertained.

Over the past 20 years, the share of gross profit in total manufacturing value-added has increased slightly. In 1975, 63 per cent of manufacturing value-added was gross profit. In 1993, the share was 68 per cent. This increase has been fairly steady.

Based on this measure (see Table II.11), the most "profitable" sectors within manufacturing are: electrical machinery; beverages; rubber products; food processing; petroleum refining; and, professional and scientific equipment. These are also the sectors with the highest relative level of labour productivity. And, as would be expected, those sectors with lowest relative share of labour productivity are also those with the lowest share of gross profit in manufacturing value-added: textiles; transport equipment; and, wood and cork products.

Since 1975, several sectors have seen significant changes in their level of gross profit as a share of manufacturing value-added. For example, pottery, china and earthenware has dropped by almost one-half from 80 per cent in 1975, to 49.41 per cent in 1993. Leather footwear, on the other hand, has seen a significant increase in its share, from 44.68 per cent in 1975, to over 70 per cent in 1995. Other leather and leather substitutes has also increased over the years. And as

expected, petroleum refineries has decreased significantly from 89.33 per cent in 1975, to 75.92 per cent in 1993.

Table II.11. Share of gross profit in manufacturing value added, 1975-1993, selected years (Percentage)

	1975	1980	1985	1990	1991	1992	1993
Food products	74.12	74.75	77.10	77.25	78.74	77.67	76.38
Beverages	72.07	73.54	74.81	77.21	78.66	80.01	80.28
Textiles	49.88	52.83	46.70	46.91	51.82	47.53	45.70
Clothing (non-footwear)	60.52	51.79	56.87	57.66	60.43	56.25	7.02
Leather and leather substitutes	34.25	57.59	43.91	52.75	57.82	63.52	1.49
Leather footwear	44.68	63.49	60.03	70.93	59.93	72.82	70.16
Wood and cork products	48.88	53.30	56.55	53.88	56.19	53.19	51.87
Furniture and wood fixtures	57.10	51.37	49.76	52.63	59.55	60.69	0.89
Paper and paper products	43.88	74.65	66.32	69.21	71.20	68.38	9.36
Printing and publishing	48.20	39.55	49.93	49.97	54.16	50.13	1.44
Industrial chemicals	65.52	60.70	60.38	61.16	63.78	60.92	62.16
Non-industrial chemicals	66.23	61.77	61.61	61.71	64.06	63.01	4.27
Petroleum refineries	89.33	60.73	73.61	73.74	76.09	72.91	75.92
Rubber products	80.68	76.49	79.46	80.33	81.37	79.79	79.73
Plastic products	64.31	72.86	79.91	80.04	81.38	80.14	79.23
Pottery, china and earthenware	80.00	57.37	77.05	61.84	56.16	50.00	9.41
Glass and glass products	56.54	49.57	90.00	57.19	53.46	55.33	0.79
Non-metallic minerals	69.30	21.32	58.12	66.35	69.07	66.14	67.33
Basic iron and steel	67.09	53.40	..	..	..	..	..
Metal products (non-machinery)	59.57	47.31	46.37	64.94	67.07	64.08	3.20
Non-electrical machinery	50.41	38.18	46.66	58.53	61.57	57.20	8.15
Electrical machinery	83.82	88.37	82.21	85.30	86.14	85.20	85.67
Transport equipment	19.46	48.65	16.04	16.88	24.64	20.81	25.77
Professional and scientific equipment	..	..	55.31	62.76	64.12	67.95	75.07
Miscellaneous manufacturing	69.91	81.63	79.13	73.56	75.30	69.09	72.29
Total manufacturing	**63.33**	**63.81**	**65.29**	**66.97**	**69.49**	**68.20**	**68.14**

Source: UNIDO, Industrial Development Reviews Information Database.

D. OWNERSHIP AND INVESTMENT PATTERNS

Investment

The rate of growth of capital formation in Kenya has been erratic.[3/] In the period from 1985 to 1994, it ranged from a high of 13.06 in the modern economy, to a low of -14.8 in 1991. Capital formation in the manufacturing sector, rose over that period (in 1982 prices) from KSh65.18 to KSh130.9. In 1994, total investment in manufacturing was KSh612.16 million (current shillings), 16 per cent of all investment in the monetary economy. This was down from 19 per cent in 1990, but slightly up from 1992's level of just under 15 per cent.

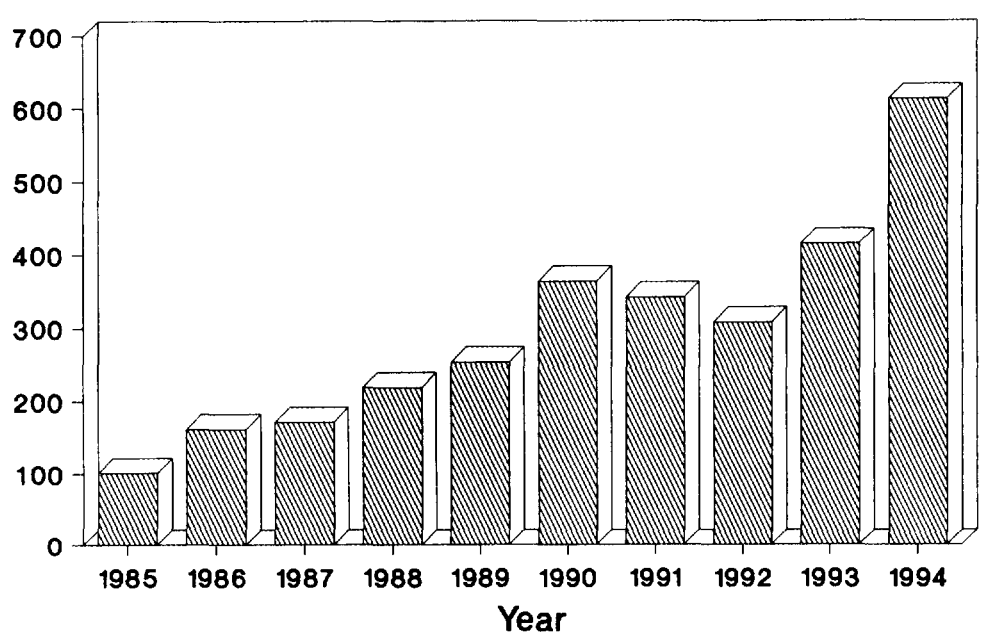
In 1994, an estimated 53 per cent of gross fixed capital formation came from the private sector. The public sector, including the parastatal enterprises, has traditionally accounted for about 45 per cent of investment in Kenya, but only for small amounts of investment in the manufacturing sector. Public investment in the manufacturing sector in 1990, was only KSh5.36 million, down from KSh9.58 million in 1989. This is less than 4 per cent of total investment in manufacturing in 1989, and less than 2 per cent in 1990.

Table II.12. Gross fixed capital formation in manufacturing, 1985-1994
(Million KSh)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Current prices	101.8	161.34	171.8	218.3	253.9	363.3	341.6	307.3	414.9	612.2
Constant 1982 prices	65.18	83.87	89.64	112.35	110.52	130.9	111.47	96.36	103.6	116.0

Source: Republic of Kenya, Central Bureau of Statistics.

Fig. II.D. Gross fixed capital formation in manufacturing, 1985-1994
(Shillings million)



One of the major constraints to the development of industry in Kenya has been the lack of available capital. In an effort to provide this capital, several government and quasi-government industrial development finance institutions have been established. Their track records have not been particularly good, however. In recent years the numbers of projects financed has dropped, as has the total schilling value of loans.

Table II.13. Financing of gross fixed capital formation, 1981-1994, selected years
(Million KSh)

	1981	1990	1993	1994
Gross fixed capital formation				
Gross fixed capital formation	725.41	2,028.00	2,825.26	3,928.58
Changes in stocks	133.40	345.32	112.23	84,17
Total	858.81	2,373.32	2,937.49	4,012.75
Financing				
Grants from abroad	20.70	296.10	484.62	522.32
Net borrowing from abroad	326.90	572.53	-287.82	-291.06
Domestic savings	551.21	1,508.01	2,740.69	3,781.49
Total	898.81	2,376.64	2,937.49	4,012.75

Source: Republic of Kenya, Central Bureau of Statistics.

Table II.14. Industrial projects approved by selected government and quasi-government institutions, 1990-1994

Institution	Number of projects					Approved expenditure (million KSh)				
	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
Industrial Development Bank	8	7	4	7	5	3.4	9.6	7.1	15.0	10.7
Development Finance Co. of Kenya	9	9	21	11	9	5.3	8.9	22.5	11.5	17.8
Kenya Industrial Estates	219	169	105	94	204	4.0	3.7	2.9	2.0	3.9
Industrial and Commercial Development Corporation	12	20	10	9	1	4.0	20.6	8.7	11.9	0.8
Total	**248**	**205**	**140**	**121**	**219**	**16.7**	**42.8**	**41.2**	**40.4**	**33.2**

Source: Republic of Kenya, Central Bureau of Statistics.

Ownership

Despite the significant change in policy in 1986 to move to reduce the influence of government in the economy and encourage the role of the private sector, the state has continued to account for a significant ownership portion of Kenyan industry. Through 1990, the parastatal sector accounted for 11 per cent of GDP. According to the Policy Paper on Enterprise Reform and Privatization published by the Ministry of Finance in October 1994, the government continued to have direct or indirect ownership in 250 enterprises. Of this, they had a majority share in 38 and a minority holding in 66 industrial enterprises. While the total number of companies may not seem large, they are primarily large enterprises and are concentrated in the textile, cement and sugar sectors.

Parastatal enterprises were, and are, characterized by a negative growth of factor productivity, high rates of capital intensity and low levels of employment growth. In fact, the level of inefficiency is such that the World Bank[4/] (see Chapter I, Section D) estimates that if they had functioned at the same level of efficiency as the private sector, the rate of GDP growth would have been two percentage points higher. Not only are they inefficient, they are a significant drain on government

resources. The level of subsidies (direct and indirect) to the sector over the period amounted to 5.5 per cent of GDP.

While Kenya has embarked on a programme of privatization and reform (see Chapter I, Section D) aimed at reducing government ownership of the economy, thirty-three "strategic" enterprises are slated to remain in state hands. They are primarily utilities, transport (Kenya Railways) and general services such as the post, but also include the National Oil Corporation of Kenya, Kenya Pipeline Co. and Kenya Petroleum Oil Refineries, as well as several industrial development finance institutions.

Within the private sector, the vast majority of companies are small in size.[5/] For example, in 1990, of the 2,002 existing establishments, 1,390 had less than 50 employees and 1,064 had less than 20 employees. Of the limited number of medium and large enterprises, most are owned by foreigners (multinational corporations) and Asian-Kenyans.

Foreign investment in the manufacturing sector has been relatively strong. In fact, one estimate[6/] puts foreign ownership of the manufacturing sector at 50 per cent (based on capital investment). Foreign ownership in the manufacturing sector ranges across several subsectors including, textiles, shoes, food processing, petroleum products, chemicals and pharmaceuticals. Foreign companies are also involved in the manufacture and assembly of motor vehicles and parts. The largest foreign investor in the country is the United Kingdom, followed by the United States.

In 1990, foreign-owned companies in all sectors employed 117,000 out of the total private modern sector labour force of 713,500. Parastatal enterprises in all sectors accounted for the employment of a further 117,100.

E. INDUSTRIAL LOCATION

Industry in Kenya is centred around the country's main cities, especially Nairobi and Mombasa, where there is the necessary infrastructure in place to support industrial activities. According to the 1977 Census of Industrial Production, the last one available, manufacturing activity centred around Nairobi (53.68 per cent of establishments), Mombasa (13.45 per cent) and Nakuru (4.8 per cent). By province, manufacturing concerns lead in Nairobi, followed by the Rift Valley (Nakuru) and then the Coast.

Mining and quarrying activity is also concentrated in Nairobi with 30 per cent of establishments. Mombasa is the location for a further 9.5 per cent, followed by Kisumu near Lake Victoria. Based on province, however, the Coast (Mombasa) lags behind the others as home to mining and quarrying concerns. The leading province is Nairobi, followed by Nyanza and the Western provinces combined, the Central province, the Rift Valley. Only the Eastern and North Eastern provinces have less activity in this sector, and, in fact, have very little other modern sector activity either.

Construction activities were overwhelmingly located in the Nairobi area which accounted for over 70 per cent of all concerns. Mombasa was home to just over 10 per cent of the country's building and construction establishments.

While there are no figures currently available, it is unlikely that any change to this location pattern has taken place over the past 18 years. The recent creation of export processing zones (EPZs) seems to support this. They have located near the main cities of Nairobi and Mombasa which continue to offer the best infrastructure.

Table II.15. Location of industry by main towns, 1977

	Establishments (Number)	Employees (Thousand)	GDP (Million KSh)
Mining and quarrying			
Nairobi	54	1,082	487
Mombasa	17	455	303
Kisumu	12	662	429
Nakuru	9	507	193
Thika	7	456	167
Other Areas/Towns	80	1,301	985
Total	**179**	**4,463**	**2,564**
Manufacturing			
Nairobi	1,811	61,905	106,514
Mombasa	454	19,322	31,126
Kisumu	81	3,412	2,345
Nakuru	163	4,563	4,252
Thika	64	11,790	14,242
Eldoret	60	4,868	4,379
Other Areas/Towns	741	38,465	54,128
Total	**3,374**	**144,325**	**216,986**
Building and construction			
Nairobi	816	38,610	21,242
Mombasa	126	3,011	1,207
Kisumu	30	454	76
Nakuru	36	1,381	372
Thika	18	183	104
Eldoret	4	52	41
Other Areas/Towns	121	2,518	718
Total	**1,151**	**46,209**	**23,760**

Source: Republic of Kerya, Central Bureau of Statistics.

Table II.16. Location of industry by province, 1977

	Establishments (Number)	Employees (Thousand)	GDP (Million KSh)
Mining and quarrying			
Nairobi	54	1,082	487
Coast	18	637	348
Rift Valley	24	476	449
Central	29	759	452
Nyanza	34	883	484
Eastern and North Eastern	20	626	344
Total	**179**	**4,463**	**2,564**
Manufacturing			
Nairobi	1,811	61,905	106,514
Coast	471	20,628	32,303
Rift Valley	535	21,158	29,536
Central	261	23,920	22,497
Nyanza	73	2,275	2,817
Eastern and North Eastern	56	4,798	14,449
Western	167	9,641	8,870
Total	**3,374**	**144,325**	**216,986**
Building and construction			
Nairobi	816	38,610	21,242
Coast	137	3,436	1,227
Rift Valley	72	2,223	497
Central	54	955	458
Nyanza	42	548	107
Western	30	437	229
Total	**1,151**	**46,209**	**23,760**

Source: Republic of Kenya, Central Bureau of Statistics.

As pointed out in Chapter I and is clearly evident here, Kenya faces a major problem and challenge in the promotion of rural development, especially the promotion of manufacturing. Kenyan policy is to aim for a balanced pattern of rural/urban development. To this end many initiatives have been undertaken already beginning with the development of a District Focus Strategy (DFS). Most of the individual efforts come within the framework of small-scale enterprise development such as the Rural Trade and Development Centers and the District Development Fund which supports RTDC development, the Kenya Rural Enterprise Programme which provides funding to small rural enterprises. In the 1990-1994, 35 per cent of the employment in the informal or *jua kali* sector was in rural areas.

Other initiatives designed specifically to promote investment and development outside of the major urban centres have been undertake. For example, to promote investment in manufacturing and hotels outside of Nairobi and Mombasa, the government has offered generous investment allowances. A more detailed accounting of these initiatives is given in Chapter I, Section D.

F. ENVIRONMENTAL ISSUES

As noted in Chapter One, Kenya is currently in the process of overhauling its environmental legislation by drafting an "umbrella law" and then harmonizing all existing legislation under that guideline. It is doing this with the help of the United Nations Environmental Programme (UNEP). Once this process is completed, it will not only make enforcement easier, it will make compliance easier. Currently environmental legislation is part of several other pieces of legislation ranging of occupancy laws to acts on traffic.

The biggest question facing Kenyan manufacturers on this issue is when they will be required to meet any new and stricter standards that result from this process. With the existing resource constraints facing most manufacturing concerns and the lack of adequate public waste management infrastructure and facilities, it is unlikely that immediate compliance will be expected.

New plant and facilities, however, are likely to be required to meet new standards and could then be at a cost disadvantage to their competitors. Such problems can usually be worked out with tax allowances, however, and do not have to pose a hindrance to new investment. What may well result in a constraint to new investment is the lack of adequate public water and waste infrastructure. The provision of on-sight water and waste treatment in certain investments may add significantly to their cost.

The other environmental question that is generally a concern to acquirers of existing companies and thus becomes an issue in the privatization process, is past environmental standards and practices. This is especially a concern in highly polluting industries such as iron and steel and other ore processing, and in industries dealing with hazardous materials such as chemical fertilizers. One of the issues that Kenyan privatization authorities will need to deal with is who be responsible for any future liability that results from pre-existing problems.

When the purchaser is a strategic investor (another company) the issue can be resolved fairly in straight forward manner. A careful environmental audit is performed and the cost of cleaning up any past damage is then either reduced from the purchase price and buyer takes the responsibility of cleaning up and bringing the site up to standards, or the cost is borne by the seller and the clean up is done prior to the finalization of the purchase. The issue is not so straight forward when the privatization is performed through the public issuance of shares, especially when the potential purchaser of the shares are individuals not necessarily informed of the ramifications that any future legislative changes might have and their potential liabilities.

G. TRADE IN MANUFACTURES

Imports

Import liberalization in the second half of the 1980s led to a sharp jump in imports, especially that of manufactured goods. From 1986 to 1990, the import of processed industrial goods nearly doubled, as did consumer goods imports. Machinery and capital equipment imports more than doubled, and processed food and transport equipment imports were up significantly. As a result, the trade balance in manufactured goods widened from KSh872 million in 1986, to KSh1,625 in 1990. In real terms the increase in the gap was more than 33 per cent.

As a share of total imports, manufactured goods has remained fairly stable in the 76 per cent range. They increased sharply in 1987 as the result of the significant increase in the value of processed industrial goods and transport equipment. Within manufactured imports, processed industrial goods (including chemicals, basic metals and non-metallic mineral products) has been the largest component for some time. In the 1980s, they accounted for close to 40 per cent of all manufactured imports. But by 1991, the share had increased to over 46 per cent. It has remained at that level since.

Capital goods and machinery is the second largest import item within manufactured goods, accounting for 20 per cent of the total in 1994. This share has dropped in recent years from a high of 32.5 per cent in 1990. Transport equipment is the next largest category of manufactured imports at 16 per cent. This is down some from the 20 per cent of total manufactured imports it accounted for in 1980, but recovered from the low levels in 1991-1993 when decreased demand for assembled cars (re-exports) and shortages of foreign currency limited imports.

Table II.17. Manufactured imports, by broad economic category, 1980-1994, selected years (Million KSh)[a/]

	1980	1986	1987	1988	1989	1990	1991	1992	1993	1994
Processed foods and beverages	429.42 (4.98)	79.20 (7.57)	62.76 (5.73)	72.14 (4.92)	111.0 (6.08)	110.8 (5.68)	65.39 (3.2)	175.6 (8.4)	145.8 (4.1)	430.9 (10.1)
Processed industrial supplies	227.6 (38.5)	393.3 (37.6)	425.5 (38.8)	619.7 (42.2)	728.3 (39.9)	778.8 (39.9)	951.1 (46.4)	936.3 (44.6)	1,822 (51.7)	1,883 (43.9)
Machinery and capital equipment	154.6 (26.2)	254.5 (24.3)	319.7 (29.2)	414.3 (28.2)	476.5 (26.1)	634.1 (32.5)	608.7 (29.7)	600.0 (28.6)	739.4 (21.0)	883.4 (20.6)
Transport equipment	121.2 (20.5)	259.6 (24.8)	190.7 (17.4)	267.2 (18.2)	393.9 (21.6)	315.5 (16.2)	293.0 (14.3)	238.0 (11.3)	461.8 (13.1)	706.0 (16.5)
Consumer goods	57.7 (9.8)	59.79 (5.71)	70.6 (6.4)	93.9 (6.4)	116.9 (6.4)	110.5 (5.7)	132.6 (6.5)	149.1 (7.1)	357.9 (10.2)	385.1 (9.0)
Total manufactured imports	590.5	1,046	1,096	1,467	1,826	1,950	2,051	2,099	3,527	4,288
Real value of manufactured imports	714.0	715.7	716.9	886.2	1,008	955.4	26.48	29.5	1,127	1,285
Percentage of total imports	..	78.2	76.6	83.1	81.6	76.5	77.5	71.0	69.8	74.5

Sources: Deloitte Haskins & Sells Management Consultants and African Development and Economic Consultants Ltd, Kenyan Association of Manufacturers Study, *The Present and Future Financing Needs of the Industrial Sector in Kenya,* Nairobi, May 1992, and Republic of Kenya, Central Bureau of Statistics.

a/ Figures in parentheses indicate percentage share in total manufactured imports.

Imported processed foods and beverages varies in response to food production at home. In periods of food shortages, the amount of imported processed food stuffs will increase. The sector also jumped in response to import liberalization, especially in terms of sugar imports (see chapter I, Section A).

Measured by manufacturing branch rather than broad industrial category, chemicals become the most important manufactured import accounting for 46.16 per cent of total manufactured imports in 1993. Next in importance is machinery and transport equipment (combined by this classification method).

Fig. II.E. Structure of manufactured imports, 1993
(Percentage)

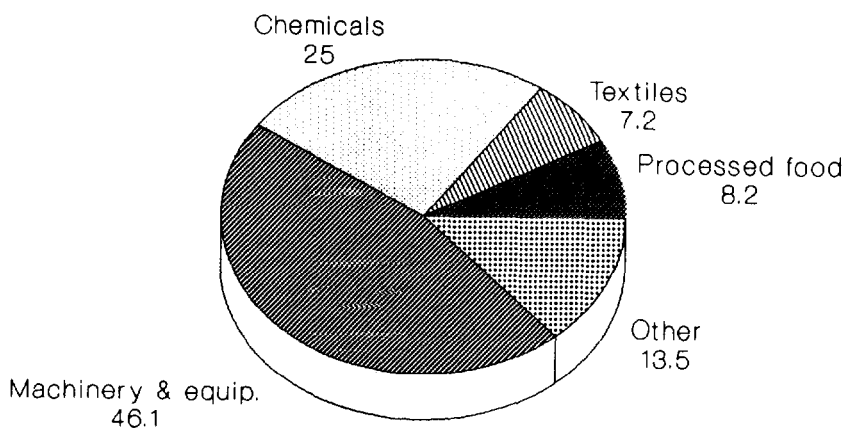


Table II.18. Manufactured imports by industrial branch, 1975-1993, selected years
(Percentage of total manufactured imports)

Year	Processed foods	Textiles and clothing	Wood products, furniture	Paper, printing, publishing	Chemical industry	Non-metallic products	Basic metals, iron and steel	Machinery and equipment	Misc. goods
1975	5.73	8.01	0.18	5.61	21.33	1.52	7.22	49.59	0.81
1980	7.12	3.87	0.26	3.13	25.22	1.75	9.65	48.31	0.69
1985	11.43	3.55	0.23	3.16	28.36	1.41	9.80	41.45	0.61
1986	10.49	2.66	0.15	2.98	24.38	1.25	7.25	50.35	0.48
1987	8.27	3.81	0.18	2.86	26.79	1.33	9.03	47.21	0.51
1988	8.58	2.14	0.29	2.99	25.10	1.49	9.73	49.05	0.64
1989	6.25	2.72	0.22	2.64	19.25	1.34	8.05	58.67	0.84
1990	9.90	1.97	0.32	2.80	18.08	1.51	8.97	55.97	0.48
1991	11.93	2.17	0.53	3.43	22.19	1.83	9.60	47.78	0.53
1992	16.00	2.96	0.44	4.19	25.36	1.58	8.82	40.12	0.54
1993	8.21	7.21	0.65	3.19	25.01	1.30	7.01	46.16	1.28

Source: UNIDO, Industrial Development Reviews Information Database.

Exports

As can be seen in Table II.19 below, efforts to encourage the export of manufactured goods began to take effect by 1990 when they rose in real value and as a percentage of total exports. A change in the structure of manufactured exports has also taken place over the years. In the 1980s, the share of consumer goods in the total manufactured goods exports rose from 1980's share of just over 19 per cent, to over 28 per cent in 1986. In 1998 and 1989, there was a sharp drop in the share of exports to 24.6 per cent and 22.7 per cent respectively. A modest recovery was made to the 25 per cent range where consumer goods exports remained until they took a large jump in 1995, to 28.1 per cent of total manufactured exports.

This rise in the relative share of manufactured consumer goods exports is mirrored by a decline in the relative share of processed food exports over the 1980-1994 period. In 1980s, the share of processed food and beverages in manufactured exports was over 32 per cent. By 1994, that share had fallen 25.6 per cent, with most of the drop occurring since 1990. At the same time the share of industrial processed exports has fluctuated with the world price of commodity raw materials, ranging from a high of 46.7 per cent in 1986, to a low of 37.9 per cent in 1987.

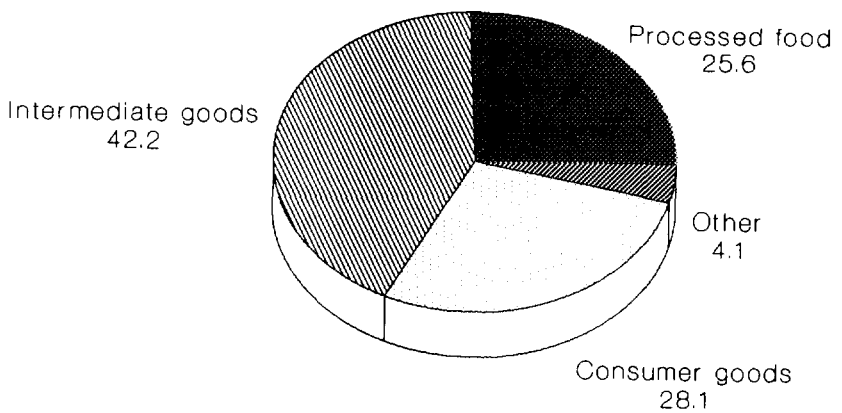
Table II.19. Manufactured exports, by broad economic category, 1980-1994, selected years (Million KSh)[a/]

	1980	1986	1987	1988	1989	1990	1991	1992	1993	1994
Processed food and beverages	31.09 (32.8)	48.16 (27.6)	49.04 (29.9)	53.78 (28.0)	73.02 (29.3)	106.3 (32.7)	139.7 (29.9)	171.0 (29.7)	378.0 (26.3)	515.6 (25.6)
Processed industrial supplies	41.28 (43.5)	68.70 (46.7)	62.16 (37.9)	80.66 (41.8)	109.0 (43.0)	127.0 (39.1)	199.1 (42.6)	243.5 (42.3)	653.1 (45.4)	850.6 (42.2)
Machinery and capital equipment	2.48 (2.6)	4.17 (2.4)	4.06 (2.5)	5.61 (2.9)	6.53 (2.6)	6.90 (2.1)	10.52 (2.3)	13.76 (2.4)	23.43 (1.6)	37.30 (1.9)
Transport equipment	1.66 (1.8)	3.23 (1.9)	4.14 (2.5)	5.34 (2.8)	4.52 (1.8)	2.62 (0.8)	4.35 (0.9)	8.06 (1.4)	30.59 (2.1)	47.00 (2.3)
Consumer goods	18.38 (19.4)	49.95 (28.7)	44.72 (27.3)	47.52 (24.6)	56.54 (22.7)	82.23 (25.3)	113.5 (24.5)	139.1 (24.1)	353.6 (24.6)	566.6 (28.1)
Total manufactured exports	94.89	174.2	164.1	192.9	249.6	325.1	467.1	575.5	1,438	2,017
Real value of manufactured exports	114.7	119.2	107.3	116.5	137.8	163.9	211.0	227.4	459.3	604.5
Percentage of total exports	22.9	19.9	24.8	24.4	24.5	26.4	30.5	33.7	39.7	48.4

Sources: Deloitte Haskins & Sells Management Consultants and African Development and Economic Consultants Ltd, Kenyan Association of Manufacturers Study, *The Present and Future Financing Needs of the Industrial Sector in Kenya,* Nairobi, May 1992; Republic of Kenya, Central Bureau of Statistics.

a/ Figure in parentheses indicate percentage share in total manufactured imports.

Fig. II.F. Structure of manufactured exports, 1994
(Percentage)



H. INTERNATIONAL COOPERATION FOR INDUSTRIAL DEVELOPMENT

Kenya has been a major recipient of official development assistance (ODA) since its independence. Billions of dollars have been granted and loaned over the past 30 years. In the late 1980s, the annual amount of ODA to Kenya ballooned from the net level of $400-450 per annum (1980-1987), to a net flow of $1,187 billion in 1990. Dissatisfaction with the speed of political and economic reform, however, led to a sharp decline in the amount of multilateral ODA in 1991 and 1992. In November 1991, quick-disbursing balance-of-payments aid was frozen, and remained so for two years. The continued dissatisfaction by multilateral and bilateral donors, together with the general belt tightening in the West with regard to ODA to all recipients, has created a desire in the country to reduce its level of dependence on ODA flows as noted above.

In recent years, the amount of ODA funds used for technical cooperation (TC) has risen dramatically from 14 per cent in 1990, to 30 per cent in 1992. As well as an examination of the appropriate uses of ODA, disappointment with many of the development projects undertaken in the past, has also led to an examination by Kenyan authorities of the use of much of these ODA funds used for technical cooperation. This is especially the case with technical assistance (TA) to small and medium enterprises as described in Chapter I, Section D.

UNIDO has been particularly active in Kenya, with over 80 TC projects completed since 1969. Currently, thirteen projects are under way. UNIDO projects, past and present, cover a broad area of the TC needs of the country. Past projects have included: industrial training in such areas as food processing; technology transfer and appropriate technology choice; advisory services to the Ministry of Industry; support to NGOs; support to women in industry; and an investment promotion seminar. Many industrial sectors have been covered: the food processing; leather; energy; pulp and paper; cement; boat-building and synthetic fibres industries to name just a few.

Kenya's technical assistance needs remain great and UNIDO activity in the country is, and will be, on-going. Future areas of cooperation will continue to include support to NGOs, support to small-scale industries, industrial training, technology choice and the many other areas where UNIDO can provide support. As a result of the withdrawal of the Kenyan government from a direct role in the economy, it is expected that UNIDO support directly to the private sector will rise.

NOTES TO CHAPTER II

1/ Republic of Kenya, Central Bureau of Statistics, *Statistical Abstract 1991.*

2/ World Bank, *World Tables 1995,* Washington D.C.

3/ Republic of Kenya, Central Bureau of Statistics, *Statistical Abstract 1991,* pp. 43-49 and *Economic Survey 1995,* pp. 28-30.

4/ World Bank, *Kenya Poverty Assessment,* Washington D.C., March 1995.

5/ Republic of Kenya, Central Bureau of Statistics, *Statistical Abstract 1991,* p. 86.

6/ Europa Publications Ltd., *Africa South of the Sahara 1995,* London, October 1994, p. 494.

III. INDUSTRIAL BRANCH PROFILES

A. FOOD PROCESSING AND RELATED AGRO-INDUSTRIES

As noted throughout this study, the food processing and other agro-related industries are an important element of Kenya's economy and have played a leading role in the country's economic and industrial development. Their combined share in the country's total manufacturing sector exceeds 68 per cent, measured in terms of the contribution to GDP. Sixty per cent of the more than 4,000 industrial establishments in Kenya are agro-based enterprises.

The agro-industry sector has developed on the basis of traditional domestic resources and activities include food processing, beverages and tobacco. This trend of development is likely to continue into the future, as the utilization of domestic resources still remains a primary objective in Kenya's development strategy.

STARCHY STAPLE FOODS

The resource base

The main food crops produced and consumed in Kenya are maize, wheat, rice, sorghum and millet. Others are root crops, beans and pulses. Maize is Kenya's most widely consumed food item and accounts for nearly half of the calories and useable protein available to the population. Recently, the country has managed to achieve self-sufficiency from local production except during years of bad weather.

Wheat is the second most important cereal crop consumed in the country after maize. It has been grown in Kenya since the colonial times and production had principally been by large-scale farms. The country produces slightly less than 50 per cent of its wheat requirements, however, and thus imports the rest. While domestic wheat output has exhibited very slow growth, consumption has increased rather rapidly mainly due to population growth and urbanization.

Rice production in Kenya occurs primarily on small-scale farms. Both irrigation and rain-fed cropping methods are used. Irrigation takes place at Mwea, Ahero, Bunyala and West Kano. Rain-fed production is mainly concentrated in the Western, Nyanza and Coast Provinces. Two varieties of rice are produced in Kenya, Basmati and Sindano. Rice production from irrigated schemes accounts for about 35,000 tonnes per year, while rain-fed production accounts for about 6,000 tonnes per year.

Although sorghum and millet are traditional crops, their consumption is declining. They have, however, been identified as potential cash crops in semi-arid areas and their production is being encouraged.

Table III.1. Production and consumption of major staples, 1988/89-1993/94[a/]

Period	Maize (million bags)		Wheat (million bags)		Rice (tonnes)	
	Production	Consumption	Production	Consumption	Production	Consumption
1988/89	31.4	27.6	2.78	5.00	34,170	61,700
1989/90	30.3	28.5	2.62	4.80	36,000	63,954
1990/91	35.0	29.5	2.95	5.10	35,500	66,195
1991/92	26.0	30.4	2.42	5.40	36,000	67,600
1992/93	25.0	30.9	2.20	5.50	40,000	70,725
1993/94	19.5	33.3	2.60	5.70	41,070	78,000

Source: Republic of Kenya, Ministry of Agriculture and Livestock Development, Planning Division.

a/ Estimate.

MAIZE MILLING

Past trends

Historically, maize flour has been a major food item in Kenya's household consumption pattern. Consequently, maize milling has remained the largest industrial activity under the grains and grain products subsector. The product of maize milling is sifted maize flour and the by-products are maize bran (used in animal feed), maize germ (used in oil extraction), and semolina used in breakfast foods and the brewery industry.

Table III.2. Production of grain milling products, 1990-1994
(Tonnes)

Product	1990	1991	1992	1993	1994
Maize meal	241,411	227,350	119,614	168,123	233,185
Wheat flour	171,870	185,545	222,457	143,068	191,435
Wheat offal	31,408	45,156	51,900	38,124	49,990
Maize germ	28,335	35,047	15,110	19,643	25,535
Maize offal and bran	22,537	-	11,501	15,603	16,716
Rice	20,004	15,207	18,206	13,609	10,999

Source: Republic of Kenya, Central Bureau of Statistics.

Almost all rural markets in Kenya have milling facilities commonly referred to as "Posho Mills", which literally means flour mills. Most of them are operated by local entrepreneurs and self-help groups or cooperative societies. There are, however, major maize millers such as Jambo Flour Millers, Nairobi Flour Mills, Unga Maize Millers, Bakery Millers, the National Milling Corporation, Mombasa Maize Millers and Kirinyaga Flour Mills. These enterprises are located in the urban centres of the country.

Between 1963 and 1980, maize production increased at a growth rate of 2.5 per cent per annum. From 1980 to 1990, the rate picked up to reach 5.9 per cent per annum. However, the above trend was reversed in the 1990s during which production has recorded a negative growth rate of

nearly 9.0 per cent per annum. This reduction in output is attributed to unfavourable weather, a decline in the use of fertilizer due to high prices and to some extent, the low quality of seeds.

Capacity utilization of the mills rose in 1994 when the maize market was liberalized and the production of maize flour increased to 232.2 thousand tonnes from 120.0 thousand tonnes in 1992.

Constraints and prospects

In the past, price controls on maize hindered the free market forces necessary for its increased production. The decontrol of agricultural prices in 1994 (see Chapter I) has not yet had the desired effect of increasing production, however. In fact, the concurrent liberalization of trade has meant that the country has faced stiff competition from cheap maize imports. As a result, the government was forced to intervene to protect local industry by imposing taxes on imported foodstuffs. The reduction of import duties on agricultural farm inputs, and the freeing of maize prices should, however, lead to increased production in near future.

WHEAT-BASED PRODUCTS

Past trends

Wheat has been grown in the Kenya since independence in 1963, but despite the effort government has made in such areas as providing credit support for increased production, the country remains a net importer. Demand from the bakery industry alone is six million bags of wheat flour and only two million bags are produced locally. The rest of the wheat requirement is met from imports which include all the durum wheat required for the manufacture of pasta products such as macaroni and spaghetti. Durum wheat is imported from Canada and the United States.

Despite a more than 40 per cent rise in the production of wheat in 1994 (from 76.9 thousand tonnes to 107.8 thousand tonnes), imports rose over 12.3 per cent to a record 353.1 thousand tonnes. Measured in terms of bags (Table III.1 above) this is a shortfall of 3.1 billion bags.

Demand for wheat flour is distributed as follows: home-baking 64 per cent; bread making 32 per cent; biscuits three per cent; and pasta products and baby foods one per cent. Between 1991 and 1993, the level of capacity utilization of bakery enterprises was an average of 63 per cent. In 1994, bakery enterprises have increased production as indicated by the figures in the Table III.3 below. The main product of wheat milling is sifted wheat flour. By-products include bran and germ used in animal feed.

Table III.3. Production of bakery products, 1990-1994
(Tonnes)

Product	Unit	1990	1991	1992	1993	1994
Bread	Million tonnes	99,230	95,944	95,944	98,773	156,273
Scones	Million tonnes	152	228	228	272	231
Cakes	Kilogramme	167,950	60,849	60,849	62,552	91,450
Biscuits	Kilogramme	2,449,075	3,773,305	2,124,940	2,289,668	3,600,153

Source: Republic of Kenya, Central Bureau of Statistics, *Economic Survey,* various issues.

Constraints and prospects

The major constraint to the further development and expansion of the wheat-based product food processing and baked goods industries, is the simple fact that Kenya is not self-sufficient in wheat production and has to import a substantial amount of wheat while faced with serious foreign exchange availability constraints. Wheat imports range from 33 per cent of the country's wheat consumption to 66 per cent, depending on the harvest of any given year.

It also is unlikely that there will be a significant increase in the local production of wheat. First, the cost of inputs used in domestic wheat production, such as fertilizers, imported machinery and their spare parts has risen and will continue to do so. And, land reforms following independence which favoured the subdivision of land into smaller plots has been counter productive to the production of wheat, the farming of which is highly mechanized and benefits from the economies of scale offered by large-scale farming. Small-scale wheat farming, while on the increase, suffers from a lack of appropriate technology.

The liberalization of pricing and marketing of wheat products, and the removal of duty on fertilizer should improve domestic production, but Kenya will remain a net importer of most of its wheat requirements. On the other hand, the growth of the population alone means that the demand for wheat-based products will continue to rise strongly for many years to come.

BEANS AND PULSES

Past trends

Beans and pulses form an important food item and source of cheap protein for a large portion of the population in both urban and rural areas. Current production of beans is about 443,000 tonnes while that of other pulses (pigeon peas, cowpeas and green grams) make up another 200,000 tonnes. The total national requirement for beans and pulses is estimated at 684,500 tonnes which implies that Kenya requires about 41,000 more tonnes to cover the supply gap. Kenya has been producing an average of two million bags per year in the 1990-1994 period (see Table III.4).

Table III.4. Estimated production of selected crops, crop forecast survey, 1990/91-1994/95[a/]
(Million bags)

Crop	1990/91	1991/92	1992/93	1993/94	1994/95
Beans	2.34	2.10	2.39	1.25	2.82
Potatoes	2.13	1.95	2.26	1.99	2.51
Sorghum	0.88	0.82	0.95	0.86	1.05
Millet	0.40	0.35	0.45	0.39	0.47

Source: Republic of Kenya, Central Bureau of Statistics.

a/ Provisional.

Constraints and prospects

It is expected that the incentives given to farmers through the reduction of farm input prices and the better pricing of output will result in an increase in production to meet demand. Weather, and the availability of crops to process, will also greatly effect the ability of the sector to expand. Since there is no large-scale processing of beans, much of the outlook for this sector will also depend on the effectiveness of the support schemes for small business and *jua kali* sector.

ROOT CROPS

Past trends

The main root crops grown in Kenya are Irish potatoes, sweet potatoes, cassava and yams. The combined total production of these crops is estimated at 1.73 million tonnes. Root crops form an important reserve for a majority of rural people and have a cushion effect during periods of drought and food shortages since they are more resistant to prolonged drought. Production of potatoes increased from 2.0 million bags in 1992 to 2.5 million bags in 1994 as indicated by Crop Forecast Survey conducted by Central Bureau of Statistics (Table III.4 above). Irish potatoes are used primarily in the hotel industry and for making French fries (crisps).

Constraints and prospects

A change in the eating habits of Kenyans has resulted in a drastic drop in the production of sweet potatoes, cassava and yams. The government is encouraging farmers to increase the production of these more drought resistant crops as part of the country's overall food security programme, however. The outlook for this subsector will thus depend to a large degree on how successful this promotion is.

FRUITS AND VEGETABLES

The resource base

Kenya produces about five million tonnes of fruits and vegetables per year. The major products are pineapples, French beans, cut flowers, avocadoes and mangoes. Horticulture is the fourth largest foreign exchange earner in Kenya after tourism, tea and coffee. In 1994, horticulture exports earned Kenya KSh414.9 million. Exports are carried out either directly by investors or through the Horticultural Crop Development Authority (HCDA) whose share of exports in 1994 was KSh246.8 million. Cut flowers are the biggest horticultural exports followed by French beans.

Past trends

While a large portion of the production of fruits and vegetables are consumed and exported fresh, it is estimated that about 350,000 tonnes of fruits and vegetables are processed annually. There are approximately 30 processing plants in Kenya, of which the largest is Del Monte. The Del Monte plant has a captive plantation producing close to 250,000 tonnes per year of the fresh fruits and vegetables, mainly pineapples. Processing of fruits and vegetables in Kenya include the canning, dehydration, freezing, extraction of juice, and manufacture of jams and marmalades.

The main enterprises involved in fruit and vegetable processing are:

(i) Del Monte(K) Ltd. Located in Thika, Del Monte is the largest food processing factory in the country processing mostly pineapples for canning and juice.

(ii) Kenya Fruit Processors. Also located in Thika, this enterprise extracts fruit juice from passion fruit and also makes passion juice concentrate mainly for export.

(iii) Njoro Canning Factory. Located in Njoro, this enterprise cans French beans.

(iv) Trufoods Ltd. Located in Nairobi, Trufoods processes fruit juices and jams.

(v) Kenya Orchards Ltd. Located in Machakos, this enterprise cans fruits and vegetables, and manufactures jams.

(vi) Kabazi Canners. Located in Nakuru, Kabazi cans a variety of vegetables.

Table III.5. Production of canned fruits and vegetables, 1990-1994

Product	Unit	1990	1991	1992	1993	1994
Jams and marmalades	Kilogramme	1,124,754	1,125,376	1,098,403	1,233,385	1,309,166
Fruit and vegetable juices	Kilogramme	5,167,892	5,227,249	5,287,367	5,287,367	5,257,367
Squashes	Litre	2,736,085	3,354,017	1,448,809	1,347,116	1,252,560
Canned fruits	Metric tonnes	209,084	175,016	180,514	236,510	204,327
Canned vegetables	Kilogramme	441,965	479,902	474,145	291,906	423,707

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The major constraint affecting this subsector is the lack of cooling facilities both at production areas and airports. The later is more a problem for the exporters of un-processed fruits and vegetables, however. Another major problem the sector is facing is the pricing structure for fruit and vegetable produce. The prices offered to farmers by processing facilities for their produce is lower than that in the fresh market, thus enterprises which rely on independent growers for produce, do not receive adequate supply. This is the primary cause of the low capacity utilization in the sector. This pricing structure also results in the quality of the produce made available to processors being quite low - low enough that it can not be easily sold in the fresh market.

As noted in Chapters I and II, in 1994, the government announced production incentives which include providing the enabling environment to increase the quality of produce, namely the encouragement of the establishment of cold storage facilities, the duty free importation of fertilizers and greenhouse sheeting, and the intensification of research to improve the quality of produce.

OIL-SEEDS

The resource base

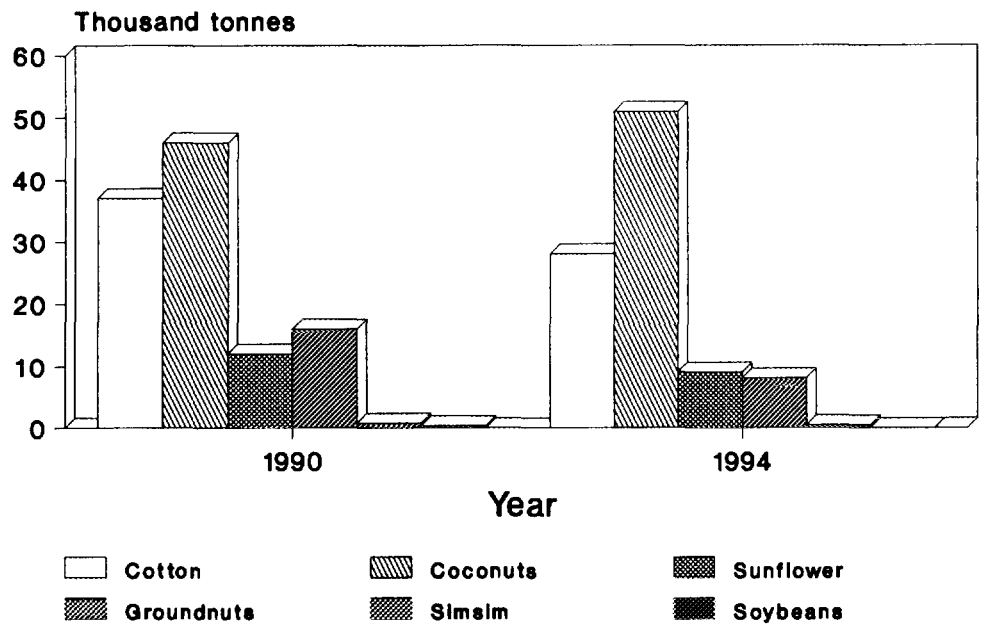
Kenya has a suitable climate to grow a wide range of oil crops such as sunflowers, coconuts, groundnuts, simsim, cotton and soybeans. However, the area under oil-seeds production has been declining since 1987 due to increased competition from cheap imported oils and low domestic prices. With the fall in production of oil-seeds, the production of vegetable oils in Kenya has deteriorated over the past few years and currently dependence on imports is nearly total. The country imports over 95 per cent of its edible oil requirement of about 200,000 tonnes and oil-seed derivatives such as oil meal and cake valued at KSh5-6 billion annually.

Table III.6. Production of oil-seeds, 1990-1994
(Tonnes)

Crop	1990	1991	1992	1993	1994
Cotton	37,000	28,400	31,800	20,749	28,690
Coconuts	46,947	50,162	52,900	53,270	51,960
Sunflower	12,893	18,700	10,750	5,570	9,902
Groundnuts	16,133	10,233	9,105	7,460	8,564
Simsim	855	997	967	1,146	424
Soybeans	308	409	238	185	3

Source: Republic of Kenya, Ministry of Agriculture and Livestock Development, Planning Division.

Fig. III.A. Production of oil-seeds, 1990 and 1994
(Thousand tonnes)



Past trends

There are over 30 processing facilities in Kenya engaged in processing a variety of oil-seeds, oil bearing materials and vegetable oils (oil milling, solvent extraction, refinery and hydrogenation). The current installed oil extraction capacity is about 265,500 tonnes per annum. The low international prices of edible oils have rendered most of the domestic processing of oils uneconomical and most plants are operating well under capacity.

An additional 342,000 tonnes per annum refining capacity is available mainly to process imported crude palm oil. The major refineries based on imported palm oil are East Africa Industries Ltd, Kapa Oil Refineries and Bidco Industries. While oil extraction units were established mostly during the period of expansion of oil crops in Kenya, the refining capacity was created especially to process palm oil and contrary to the situation in the oil milling/extraction subsector, the refining of imported crude palm oil attracted large investments and the establishment of several modern refineries equipped with the latest technology and skilled manpower. As a result, the capacity utilization of the refineries is higher than that of the oil-seed processors.

Table III.7. Installed capacity and utilization of processing facilities

Types of facilities	Installed annual capacity (Tonnes per annum)	Capacity utilization (Percentage)
Oil milling (expeller)	217,500	15
Solvent extraction	48,000	25
Refineries	342,000	58

Source: United Nations Food and Agriculture Organization, *Yearbook 1993.*

Constraints and prospects

The decline in oil crop production in Kenya as a result of competition from cheap imported oils, coupled with low domestic producer prices is the major constraint in the development of the sector. The current import duty structure, however, encourages the import of crude oils over refined products. The duty on both oil seeds and crude oils is 20 per cent, while the duty on refined edible oils is more than double that level at 45 per cent.

The edible oil sector is also constrained by its structure. The oil extraction industry in Kenya is highly fragmented and lacks integration. Most operations are stand alone oil mills or solvent plants, and refineries, leading to low oil recoveries, high costs, poor product quality and low capacity utilization.

The growth of an efficient edible oil processing industry in Kenya requires increasing the availability of oil-seeds. This can be accomplished by both increasing production and, in the immediate term, imports. Encouraging imported oil seeds via such a mechanism as a preferential tariff, would enable oil-seed processing enterprises to increase their capacity utilization, which in turn would help stimulate the revival of the market for domestic oil-seeds and increase the availability of protein meal for animal feed.

Because the use of intermediate technology is possible in this sector, the government's programme to improve the enabling environment and promote the development of small and medium enterprises should indirectly encourage oil-seed processing and could easily be adapted to include specific policies to promote the development of such entities.

SUGAR

Past trends

The importance of the sugar subsector in the Kenya economy can not be overemphasized. The industry provides employment to about 40,000 regular employees and about 80,000 small-scale farmers are engaged in cane production as a cash crop. Sugar cane farming started in Kenya in 1920s. There are currently two main producing zones: the Nyando belt and the Western Kenya belt. The Nyando belt has three operating facilities, Miwani, Chemelil and Muhoroni, with cane crushing capacities of 60,000 tonnes, 75,000 tonnes and 55,000 tonnes per annum respectively.

The Western belt has four operating facilities, Mumias, Nzoia, South Nyanza (Sony) and Western Kenya Sugar company, with cane crushing capacities of 218,000 tonnes, 75,000 tonnes, 65,000 tonnes and 60,000 tonnes per annum respectively. There are also 13 small facilities producing brown sugar known as jaggery factories. Their total estimated production capacity is 159.25 tonnes of jaggery per year.

Despite the long history of cane production in Kenya, the country has never managed to achieve long-term and sustained self-sufficiency in sugar production. Local demand must often be met with imports. In 1971, the Kenya Sugar Authority was established to promote the development of the production and processing of sugar. By the 1980s, the country was running a large surplus. By the end of that decade, however, domestic demand had risen sharply and imports were significant. Then, despite record harvests in the 1990s, sugar was being smuggled to Uganda in such quantities that shortages were occurring at home. By 1995, however, the shortage in the market had become a glut due to the illegal import of sugar and the entire industry was near collapse. Because the situation had become so severe and it was felt that 13,000 jobs were at stake, the government was forced to ban the importation of sugar for six months.

Sugar production and consumption figures are given in Table III.8.

Table III.8. Production and consumption of sugar, 1988-1994

Year	Production (tonnes)	Consumption (tonnes)
1988	411,296	462,207
1989	441,261	489,544
1990	431,836	537,999
1991	433,713	493,945
1992	371,225	552,200
1993	384,800	580,847
1994	349,805	610,470

Source: Republic of Kenya, Ministry of Agriculture and Livestock Development, Planning Division.

Constraints and prospects

The sharp decline in the production of sugar has been caused primarily by inadequate investment in cane development. The future of the sector lies in opening up new areas to sugar production and increasing yields, as well as the rehabilitation and capacity expansion of existing processing factories and the establishment of new sugar processing facilities. There are two factories which have been proposed for construction, Siaya and Busia. The Busia Sugar Project is already under way with cane being developed and is now awaiting factory construction.

Other government efforts to stimulate the sugar industry and raise productivity, include implementing policies aimed at increasing production including the liberalization of consumer prices, removal of import licensing requirements, imposition of a variable duty on cheap and subsidized imports, freedom to sell directly to consumers up to 20 per cent of each factories' output, and government guarantees for the securing of local and offshore loans. It is hoped that all these measures will yield good results in the long run.

BEVERAGE CROPS

The resource base

Kenya is one of the leading countries in the world in the production of both coffee and tea. The two crops are the major agricultural commodities and foreign exchange earners for the country. Coffee was among the earliest cash crop planted in Kenya and it is now produced by cooperative societies involving thousands of small-holder farmers and large estate farms. Most coffee grown in Kenya is of the Arabica variety.

Tea in Kenya is produced by small-scale farmers under the umbrella of Kenya Tea Development Authority (KTDA) which is a parastatal body and owns over 30 tea factories scattered all over the tea growing zones. Other producers are large private farms such as Brooke Bond and Finlay which have their own tea processing facilities.

Past trends

Since 1990, the production of coffee has been declining. Output has dropped from 103,900 tonnes in 1990 to 79,900 tonnes in 1994. The decline in production has been largely the result of the substantial drop in the coffee agreement export quota system in 1989. Despite the decline in world coffee prices Kenya's coffee still enjoys a premium over world prices because of its high quality. Over 95 per cent of coffee produced is exported. The leading market for Kenyan coffee is the EU, with Germany as the leading country.

The coffee subsector plays an important role in the development of the country through its foreign exchange earnings and employment generation. The subsector earned the country over KSh4.4 billion in 1990 and over KSh13.0 billion in 1994.

The production of tea rose from 197,000 tonnes in 1990 to over 209,00 tonnes in 1994. The decline in 1992, evident in Table III.9 was due to drought. The general good performance of the subsector has been the result of liberalization of the tea industry, introduction of foreign exchange retention accounts, strong prices offered in the auction markets and maintenance of rural access roads enabling growers to get their produce to market. Tea exports earned Kenya KSh6.3 billion in 1990 and KSh16.9 billion in 1994. The major markets for Kenyan tea are Pakistan and the United Kingdom.

Table III.9. Production of tea and coffee, 1990-1994

	Tea			Coffee		
Year	Area (Thousand hectares)	Production (Thousand tonnes)	Exports (Billion KSh)	Area (Thousand hectares)	Production (Thousand tonnes)	Exports (Billion KSh)
1990	97.00	197.0	6.3	153.1	103.9	4.4
1991	99.80	203.6	7.5	155.4	86.4	4.4
1992	103.50	188.1	9.5	153.8	85.3	4.1
1993	104.86	211.2	18.7	158.2	75.1	11.0
1994	105.91	209.4	16.9	158.7	79.9	13.1

Sources: Republic of Kenya, Central Bureau of Statistics and *Export Promotion Council Report.*

Constraints and prospects

The coffee subsector has been performing poorly over the last four years mainly because of the decline in world prices which has made it uneconomical to produce. This has been exacerbated by delayed payments to farmers which resulted in many abandoning the crop. The suboptimal application of fertilizers and other chemicals due to the high price of these inputs has also adversely affected the output of both tea and coffee. With an improved system of payments to farmers and the expected privatization of the country's tea factories, production of the crops should improve. Kenya is also looking into expansion of its export markets with a view of avoiding over reliance on too few markets.

Both tea and coffee will always be subject to the swings in the world price of these commodities, however, and there is little that can be done to combat the adverse effects of drops in the price except to strive for the lowest cost production possible.

ALCOHOLIC BEVERAGES

The resource base

The primary ingredients in the production of beer are barley and hops. Kenya is basically self-sufficient in production of barley, although occasional shortfalls that necessitate importation due occur. Hops are still imported, although experimentation on their local production has been successful. The main input in the production of spirits is molasses which is locally available as a by-product of sugar processing. The growing of grapes for wine-making is not significant.

Past trends

Alcoholic beverages produced in Kenya include beer, limited amounts of wine and spirits. Beer production is dominated by Kenya Breweries Ltd which has five breweries; three in Nairobi, one

in Mombasa and one in Kisumu. Wines and spirits are produced by the Kenya Wine Agencies (wines), International Distillers Kenya Ltd (spirits) and Mohan Meakin Ltd (spirits). The bulk of the production of beer, wines and spirits is consumed locally, however, small amounts are exported mainly in the COMESA region. Production of beer decreased in 1994 as a result of stiff competition in the local market from imported beer from South Africa and Germany.

Table III.10. Production of spirits and beer, 1990-1994

Product	Units	1990	1991	1992	1993	1994
Beer and stout	Thousand litres	331,114	314,005	368,648	358,866	325,005
Spirits	Litre	1,195,917	1,688,302	1,480,323	2,259,130	1,674,000

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

Kenya has in the past approved the establishment of brewery projects but none has taken off mostly due to the monopoly Kenya Breweries has in the production of barley. Wine production has been hampered by the inadequate production of grapes. It is recognized that the utilization of local fruits offers potential for increased wine production and efforts to produce other fruit-based wines such as papaya wine already are being intensified.

While Kenya Breweries has a dominant share of the local beer market, it is likely that with privatization and new investment, the amount of exports can be increased to both the COMESA market and to the EU as the demand for "exotic" beers continues to be strong there.

TOBACCO

The resource base

Kenya is self sufficient in tobacco leaf production. The major company involved in this sector is British American Tobacco Company Kenya (BAT). Tobacco is grown and sold to BAT Kenya by small-scale farmers who number about 11,000 and who cultivate 6,000 hectares of land. Three main types of tobacco grown are: fire cured; flue cured; and burley. The other company involved in the tobacco industry is Mastermind Ltd. While statistics are not available to quantify its market share, it is minimal. All information and data relating to this subsector thus refers to BAT Kenya.

Table III.11. Production of tobacco, 1990-1994

Year	Production (tonnes)	Value (million KSh)
1990	6,414	119.0
1991	6,424	128.5
1992	8,406	179.3
1993	6,057	183.6
1994	5,183	260.1

Source: British American Tobacco Company, Company Report.

Past trends

As noted, BAT Kenya is the largest agro-based industry involved in the growth of leaf tobacco, the manufacture of cigarettes and other tobacco products, and distribution and export activities. The local investors have a 40 per cent share of the firm, while 60 per cent is owned by the parent BAT company. Cigarette production has shown a rising trend, particularly since liberalization efforts began in 1992.

Table III.12. Cigarette production and tobacco manufactures, 1990-1994

Year	Volume (million sticks)	Value (million KSh)
1990	523	83.2
1991	525	107.0
1992	805	207.8
1993	1,256	513.4
1994	1,409	716.4

Source: British American Tobacco Company, *Tobacco News*, August 1995.

Prospects and constraints

Prior to decontrol, BAT Kenya was affected by delays in the processing of import licences for the importation of raw materials and by a lack of foreign exchange. After liberalization the company's capacity utilization has gone up and with the demand for Kenyan cigarettes in the neighbouring countries on the rise, exports are expected to go much higher.

ANIMAL FEEDS

The resource base

The animal feed industry in Kenya is based on the by-products of the food processing industry and includes grains and grain milling by-products, oil protein cakes from the oil extraction industry, fish meal, root crops and dried green fodder such as lucerne meal, grass meal, premixes and clover meal. While all of these are available locally, not all are available in adequate supply or in good quality.

Past trends

The animal feed industry mostly serves commercial livestock production which is responsible for production of substantial quantities of eggs, milk, poultry, beef and pork. Commercial livestock and pig farming is wholly dependent on locally produced commercial animal feeds.

Kenya manufactures both compound and simple animal feeds. The manufacture of compound animal feeds is the largest activity in the subsector with over 29 firms involved. Apart from fish meal, manufacturers of simple feeds are mainly human food manufacturers and the simple feeds are merely by-products.

Some of the major compound animal feed manufacturers include ABC Foods in Nakuru, Arkay Industries in Mombasa and Nakuru, Unga Feeds in Nairobi and Nakuru, and United Millers in Kisumu.

Table III.13. Production of prepared animal feeds, 1990-1994

	Unit	1990	1991	1992	1993	1994
Cattle feeds	Tonnes	45,470	46,316	58,926	40,993	28,514
Pig feeds	Tonnes	8,592	7,638	7,242	6,586	10,695
Poultry feeds	Tonnes	84,889	89,411	79,263	49,318	5,007
Dog and cat feeds	Tonnes	456	682	570	774	633
Horse and other feeds	Tonnes	6,537	6,820	6,820	4,379	6,258

Source: Republic of Kenya, Central Bureau of Statistics.

Since the demand for animal feeds is largely dependent upon the activity and demand of the animal husbandry subsector, the rise and fall in output tends to lag that sector. For example, a significant increase in the slaughter of cattle and chicken in 1993, was followed by a decrease in the production of cattle and chicken feed in 1994. The output of the subsector is also dependent upon, as noted, the availability of by-product from the local food processing industries.

Constraints and prospects

Two main problems have been affecting the animal feed industry: shortages of raw materials and poor quality feeds. Due to high competition, shortages of raw materials especially for simple feeds and their high prices, most manufacturers have had to resort to production of low quality feeds. To overcome this problem of raw material shortage, the government is encouraging farmers to grow yellow maize, improve local production of oil crops and utilize cassava chips and pellets to substitute in part for cereals.

ANIMAL HUSBANDRY

The resource base

The main objectives for livestock development in Kenya are to be self-sufficient in production; to alleviate poverty through the creation of income generating employment at all stages of livestock production; and to produce sufficient animal proteins to ensure adequate nutrition for Kenyans. Kenya has not conducted an animal census in the recent past, but current estimates are that there are 11.7 million head of cattle, 8.3 million head of sheep, 9.6 million head of goats, 96.2 thousand pigs and 25.2 million chickens in the country.

Cattle rearing is predominantly an occupation of the small farmers. The Kenyan beef cattle comes mainly from the Zebu cattle. The most popular type is the Boran Breed which occupies Northern Western plains. The smaller Masai humped Zebu is found in the Eastern and Southern Plateau. There are also crossbred cattle as a result of successful artificial insemination.

The most popular types of sheep and goats found in Kenya are the Galla, the East African, the Droper, the Red Masai and the Togenburg for meat, and the Romney Marsh and Hampshire Down breeds for wool. Poultry farming is practised by about 90 per cent of the rural population and they produce 75 per cent of the total poultry population.

Pork is generally not as popular as beef or mutton. Most of the pigs raised in Kenya are done so by small farm holders. In general, the country is suitable for keeping many livestock species under varying degrees of intensification. While intensified livestock systems are practical in high rainfall areas, disease controlled areas are suitable for expansive and nomadic pastoralization. Exotic cattle are concentrated in the high altitude, high rainfall areas while the indigenous animals are spread throughout the country.

Dairy has been one of the major growth subsectors in the economy since small-holder dairy production began after independence. The small holders contribute over 80 per cent of all milk consumed in the country. Total milk production in Kenya includes milk from cattle, camels, sheep and goats. Cattle contributes over 80 per cent of the total 2.1 billion litres of milk produced in the country and almost 100 per cent of marketed milk.

Past trends

The main activities under meat processing and meat products include slaughtering, dressing, curing, freezing and the manufacture of meat products. While there are numerous slaughterhouses scattered all over the country which produce for local consumption, there are also several large meat processing facilities. The major enterprises in this subsector are: Farmers Choice; Kenchic; and the Uplands Bacon Factory. The Kenya Meat Commission with factories at Athi River and Mombasa, was closed in 1991 (see below).

While marketing and pricing of white meat (chicken, pigs and fish) has always been under the free market system, that of beef was controlled until 1987 at which time both its pricing and marketing were liberalized. Since decontrol, beef market prices have been responding to the supply and demand situation.

Annual milk production has more or less stagnated over the last five years at around 2 billion litres, while consumption has increased from 1.7 billion litres in 1988 to 2.0 billion litres in 1994. Milk production in Kenya in based on forage or grass and for that reason displays seasonality associated with rainfall patterns.

Table III.14. Product and consumption of meat and milk, 1988-1994

Year	Meat (thousand tonnes)		Milk (billion litres)	
	Production	Consumption	Production	Consumption
1988	308.8	310.4	2.0	1.7
1989	320.9	322.2	2.3	1.9
1990	319.1	335.5	2.3	2.0
1991	404.3	350.1	2.4	2.1
1992	414.3	364.6	2.2	2.0
1993	423.3	383.4	2.0	2.0
1994	..	..	2.1	2.0

Source: Republic of Kenya, Ministry of Agriculture and Livestock Development, Planning Division.

The main activities under dairy processing and dairy products include: milk cooling; processing (pasteurization and ultra heat treatment); milk dehydration; and, the manufacture of cheese, cream, butter and fermented milks (mala and yoghurt). Kenya Cooperative Creameries (KCC) is the largest industrial conglomerate in this subsector and operates ten factories and seven milk cooling centres in various parts of the country. As well as KCC, there are a number of cooperative-owned factories and private dairies. There are also public institutions such as Egerton University, the University of Nairobi and the Naivasha Dairy Training School which have dairy processing facilities and process milk, cheese, butter, yoghurt, cream and ice cream.

Since the liberalization of the dairy industry in the early 1990s, ten mini-dairies have been established in different parts of the country, most located in rural areas. Their daily production capacity ranges between 3,000 and 25,000 litres. These mini dairies manufacture and package a wide variety of milk products with fresh milk topping the list.

Table III.15. Production of meat and dairy products, 1990-1994

Commodity	Unit	1990	1991	1992	1993	1994
Meat products:						
Beef	Tonnes	8,985	7,911	8,330	12,337	9,951
Pork	Tonnes	1,159	1,003	1,241	2,187	1,454
Sheep, lamb and goats	Tonnes	69	81	81	81	81
Sausage	Tonnes	2,662	2,492	2,785	2,812	2,632
Hides and skins	Tonnes	53,385	122,002	128,102	134,507	130,794
Processed chicken	Tonnes	1,977	2,396	2,167	2,284	2,282
Dairy products:						
Liquid milk	Thousand litres	485,893	429,220	198,389	191,607	170,456
Cheese	Kilogramme	552,219	594,112	329,794	607,940	331,208
Butter	Tonnes	3,248	3,024	2,181	2,233	2,382
Baby foods	Kilogramme	325,677	237,637	460,139	670,948	412,960
Ice cream	Litre	618,708	701,449	701,449	822,679	756,846

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The major constraint facing the meat processing subsector in Kenya has been the closure of the Kenya Meat Commission in 1991. Its factories had the capacity to meet EU health standards and could produce high-quality exportable products. On the other hand, the Kenya Meat Commission tended to pay lower prices to farmers than the private sector slaughter houses and meat processors.

A second constraint facing the subsector is the shrinking amount of land available for beef cattle as a result of the subdivision of large high potential farms and group ranches in arid and semi-arid areas. The cost of disease control with respect to chemicals, drugs and vaccines used also is expensive for the Kenyan herder.

The constraints in the dairy industry mainly relate to the production of milk. The problems experienced are numerous, including inadequate forage supply, poor pasture, low supply of quality breeding heifers, low quality and quantity of compound daily fees, irregular and unreliable payments to farmers, few cooling facilities and poor use of small cooling facilities, poor infrastructure, little research on fodder and by-products, and poor management.

Despite the long list above, the Kenyan dairy industry has a bright future. Many of the constraints can be overcome with manageable amounts of investment in new technology and training. Most of what is need to improve yields is improvement in dairy cattle feeding and the reduction of calving intervals. This is possible by improving nutrition together with farm level management skills and the genetic make-up of the dairy herd. Vast improvement could be made through the location of new processing plants and coolers in milk production areas.

In a country where the agricultural sector is an important component of the economy, the trend in milk industry is favourable for small-scale producers who account for 75 per cent of the population.

Privatization of the Kenya Meat Commission[1/] will give an immediate boost to the meat slaughtering and processing subsector. The promotion of small- and medium-scale slaughtering and processing facilities in the rural areas producing cattle and other livestock also will boost output.

FISHING

The resource base

The largest source of fish in Kenya is Lake Victoria which accounts for over 90 per cent of the country's total fish catch. The dominant species from the lake is Nile perch (Lates niloticus) which makes up about 50 per cent of the catch, followed by omena (Engraulicyprus rastreneobola) a tiny silvery fish mainly used in the animal feeds industry. The third most important fish species is tilapia which is popular for human consumption and rarely reaches the filtering industries. Lake Turkana is the second largest freshwater lake for fish catching.

Although Kenya has a significant coastline on the Indian Ocean, the fish landings from marine waters are very modest. There also are three types of fish farming in Kenya: warm-water fish farming mainly of tilapia; cold mountain area fish farming primarily of trout; and coastal/saline water fish farming mainly of prawns.

Past trends

The total fish landing in 1994 was estimated to be 184,724 tonnes. The major sources were Lake Victoria with 174,348 tonnes, followed by marine landings with 5,194 tonnes. Fishing in Lakes Victoria and Turkana is done by approximately 27,000 artisanal fishermen with about 6,000 fishing boats. For fish farming, there are about 6,000 fish ponds in the country with a yield of about 1,800 tonnes in 1994.

Table III.16. Quantity and value of fish landed, 1990-1994

	1990	1991	1992	1993	1994
Quantities of freshwater fish (tonnes)					
Lake Victoria	185,101	186,366	151,216	174,829	174,348
Lake Turkana	3,180	1,078	1,543	871	805
Lake Naivasha	223	299	138	109	211
Lake Baringo	380	130	255	37	215
Lake Jipe	110	107	112	101	121
Fish farming	973	1,009	1,017	1,014	1,848
Other areas	1,839	2,109	1,676	1,895	1,452
Total	191,806	191,098	178,856	178,856	179,000
Quantities of saltwater fish (tonnes)					
Marine fish	9,031	6,434	6,276	3,823	5,194
Crustaceans	733	766	573	373	403
Other marine products	208	264	345	141	127
Grand total	201,778	198,562	163,251	183,193	184,724
Value of fish landed (thousand KSh)					
Freshwater fish	80,174	83,306	162,277	180,446	202,132
Marine fish	6,824	3,765	5,914	4,807	6,696
Crustaceans	3,189	3,019	3,108	2,829	3,106
Other marine products	345	536	850	202	211
Total	90,532	90,626	172,149	188,284	212,145

Source: Republic of Kenya, Fisheries Department.

Since 1990, marine catches have shown a downward trend. Most of the marine catches also are made by artisanal fishermen who operate on shallow waters. The primary catch is rabbit fish, scavenger, snapper, parrot and rock cod. Trawling is done in areas north of Malindi and the catch are prawns, lobsters, snacks and exertions. The fishing sector in total employees about 30,000 fishermen and 6,000 persons in the processing industries.

Fish processing is a new feature in Kenya's economy with most fish processing plants having been established since 1985. In 1993, there were 25 factories, but only 11 renewed their licence for 1994. The rest did not have the necessary fish processing equipment such as sufficient water, and water treatment facilities.

The major fish processors are Kenya Cold Storage (1993 capacity of 4,800 tonnes), Samaki Industries (1993 capacity of 3,600 tonnes) Wananchi Marine Products (1993 capacity of 2,000 tonnes) and Victoria Nile Perch (1993 capacity of 2,200 tonnes). Important products include frozen fillets, dried, salted and smoked fish. Production of prepared and preserved fish has shown a downward trend in recent years from 310,142 kilogrammes in 1990 to 180,768 kilogrammes in 1994.

The local fish markets include landing beaches, open air markets where fish is sold by small-scale fish traders and urban markets with refrigeration facilities. Most of fish sold in all these markets is unprocessed (whole) and not frozen. Fish exports earn the country about KSh700 million a year. The exports are normally destined for Europe, Israel, Australia, Japan, Hong Kong, the United States and some regional countries in Africa. Some fish and fish products such as canned fish and oysters are imported.

Table III.17. Production of prepared and preserved fish, 1990-1994

	Unit	1990	1991	1992	1993	1994
Prepared and preserved fish	Kilogramme	310,142	316,345	282,382	225,937	180,768
Exports of fish, sea animals and preparation	Thousand KSh	..	35,274.2	39,179.9	86,392.7	95,308.91

Source: Republic of Kenya, Fisheries Department.

Constraints and prospects

The problems that face the fish processing industry are many and range from those related with raw material acquisition, to infrastructure, marketing and policy issues. The major constraints are:

(i) The high cost of transporting fish to the processing facilities which are located far from the landing beaches and connected by un-tarmacked roads which are impassable during rainy seasons.

(ii) The lack of fish handling and storage facilities at the landing beaches. This results in high post-harvest losses.

(iii) The lack of affordable fishing boats with cold storage for small-scale fishermen who are scattered.

(iv) Inadequate data on fishery resources. Fishery data are essential for government policies planning and resource management. Currently the data available is scanty.

(v) The unconfirmed fear that Lake Victoria is being over fished. This fear is being strengthened by the fact that fishermen are now landing less than before. In Lake Victoria the Water Hyacinth weed is also affecting fish.

(vi) The absence of information on foreign markets.

(vii) The poor management of fishery cooperatives.

Though the earnings in the fishing subsector are currently modest, the importance of the subsector in terms of employment cannot be over emphasized. As noted it employs some 30,000 fishermen and 6,000 employees in the processing factories. And, considerable scope exists for the expansion of the subsector. As noted in Chapter I, it is estimated that the total fish production in 1992 of 198,000 tonnes was only one-third of the country's potential. With improved infrastructure, marketing information, establishment of new processing plants and cold storage facilities in areas close to the sources of fish, not only would development of the subsector go a long way in providing food security for the country, it could be a source of the badly-needed foreign exchange.

B. TEXTILES AND CLOTHING

The resource base

Kenya's textile industry uses both locally sourced and imported raw materials and inputs. The domestic fibres are cotton, wool and sisal, while the imported ones are nylon, polyester, acrylic, jute, linen and cotton. All other auxiliary inputs such as dyes, chemicals and resins are imported.

Cotton growing was introduced in Kenya in 1900 and is grown in both rain-fed regions and under irrigation in the drier areas. The potential area suitable for cotton cultivation is approximately 350,000 hectares in the Nyanza, Western, Coast and Rift Valley Provinces. Out of this potential only 49,188 and 76,000 hectares were used in 1993 and 1994 respectively. The increase in 1994 is as a result of liberalization of cotton market in 1992. However, cotton production in Kenya has been declining over the years due to low seed quality, delayed delivery or non-availability of inputs, and delayed and poor payments to the farmers. Since 1984, the country has had to import to meet domestic demand.

Kenya's wool production is around 885 tonnes per annum. The main wool producing areas are Nyandarua, Narok, Nakuru, Elgeyo Marakwet and West Pokot. The later accounts for approximately 60 per cent of the wool produced. There is potential of expanding wool production to meet the high demand of wool and woollen garments.

On average sisal production is about 30,000 tonnes per annum. Sisal is used in Kenya for the manufacture of gunny bags, making ropes and twine, and matting. The main sisal producing areas are Kilifi, Kwale and Taita-Taveta.

Past trends

The textile industry is the second biggest manufacturing activity in Kenya after food processing. The textile subsector has been in existence since the second half of 1950s when several textiles mills where established by Asians of Indian origin. There are now 52 textile mills producing a total of 83 million square metres of fabric, excluding blankets and knitted goods. The knitting mills alone have a capacity equivalent to 28.8 million square metres.

Capacity utilization in the textile subsector is low. If utilized, the installed capacity, which is in the region of 115 million square metres of fabric, would satisfy 66 per cent of local demand which is estimated at 180 million square metres per year. Output of the textile and clothing sector has

fallen dramatically in recent years as a result of the competition from imports and shortages in the supply of cotton.

For example, between 1992 and 1993 the manufacture of woven fabrics fell 11.2 per cent, polyester viscose fabrics output fell 36.9 per cent and the manufacture of towelling materials dropped 42.7 per cent. In 1994, the decline continued particularly in the production of clothing items. The increase in the production of blankets in 1994, was a result of the emergency situation of the inflow of the refugee population.

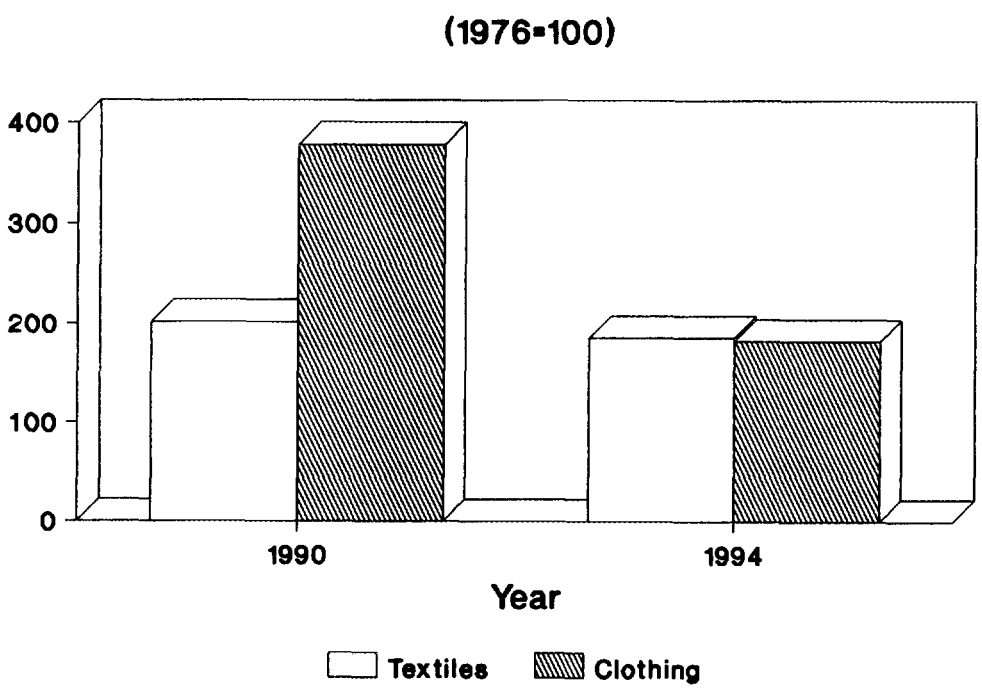
Textile mills, are grouped into three categories: those that are vertically integrated and include spinning, weaving or knitting, and finishing; independent spinning mills; and non-integrated weaving/knitting mills. Out of the 52 mills, the government owned eight firms which have now been privatized or are in the process. The rest are owned by Asian Community. There are also 350 garment-making units distributed across the country with the highest concentration in urban centres, and some 40 cotton ginneries with a ginning capacity of 100,000 bales per year. Annual production of the ginneries is only 40,000 bales, however and annual consumption is about 90,000 bales. Most of the ginneries are owned by the Kenya Cotton Board and cooperative societies.

Table III.18. Index of textile and clothing output, 1990-1994
(1976 = 100)

	1990	1991	1992	1993	1994
Textiles	202.3	218.5	218.5	252.0	186.9
Clothing	378.6	323.6	320.6	292.4	183.9

Source: Republic of Kenya, Central Bureau of Statistics.

Fig. III.B. Index of textile and clothing production, 1990-1994



Kenya's textile exports consists of yarn fabrics and ready-made garments. Exports of yarn and fabrics are done directly by the textile firms. The recently introduced Manufacturing Under Bond (MUB) and Export Processing Zone (EPZ) factories, which are mainly garment factories have boosted exports for the sector. The products from MUB and EPZ factories are exported mainly to United States, United Kingdom and in smaller portions to the COMESA countries.

Table III.19. Production of textile and garments, 1990-1994

	Unit	1990	1991	1992	1993	1994
Manufacture of textiles						
Cotton woven fabrics	Square metres	44,961,194	27,302,678	31,372,595	27,874,781	..
Woollen woven fabrics	Square metres	315,398	2,799,076	8,604,046	..	..
Polyester viscose fabrics	Square metres	35,861,126	30,160,037	19,780,056	12,478,974	..
Towelling materials	Square metres	564,461	642,354	1,083,213	620,733	..
Made-up textiles						
Blankets	Thousand	3,420,703	3,191,355	2,163,767	1,257,337	1,585,109
Bed sheets	Thousand	2,642,290	2,476,269	306,351	111,581	87,952
Canvas materials	Thousand	260,003	235,950	533,804	667,337	..
Cotton ginneries						
Cotton lint	Dozen	3,906,533	1,453,351	1,669,303	1,917,343	..
Wearing apparel						
Shirts, sport shirts and T-shirts	Dozen	28,809	227,107	213,828	224,905	196,969
Trousers	Dozen	142,174	126,900	128,223	99,871	54,565
Uniforms and overalls	Dozen	5,234	5,612	8,494	9,477	7,624
Dresses	Dozen	134,259	105,869	109,092	93,652	25,381
Vests, singles and underwear	Dozen	124,938	221,934	270,310	241,783	122,389
Suits (men and boys)	Dozen	24,391	22,290	17,005	15,387	9,022

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The gross under utilization in the subsector results in frequent operating losses. The main causes have been identified as inadequate supply of raw materials, outdated technologies, mismanagement and competition from imports.

Until 1990, production of cotton was under the jurisdiction of the Cotton Marketing Board. The Board provided farmers with credit in the form of inputs to grow cotton and at the same time had the monopoly in buying cotton from farmers. The Board was very poor in paying farmers for delivered crops and that led to poor cotton production. With the removal of the Board's monopoly in 1990, the private sector has moved into the cotton production and marketing system and introduced efficiency which should stimulate production. The government also is expected to introduce measures of rehabilitating and expanding cotton growing schemes.

Kenya's textile industry has mixture of old obsolete machinery and modern state of art equipment. As a result of this some firms produce high quality products that compete in the export markets, while the others produce poor quality products. It is therefore necessary for ginning facilities to be modernized and change obsolete technology that hamper development of new products in a fast moving and changing market environment.

Prior to import liberalization in 1993, the textile industry in Kenya was highly protected through quantitative and tariff restrictions. The local manufacturers were thus comfortable and concentrated on the domestic market only. In some cases the manufacturers paid little attention to quality and pricing. With the liberalization of imports, the importation of textiles has increased

enormously and in particular apparel fabric from Far East and ready-made garments classified as "second hand". The manufacturers have therefore to compete with these imports in the domestic market and some enterprises are now threatened with closure as a result.

Kenya also is faced with the new problem of a quota system imposed by United States on imports of shirts and pillow cases, its largest market. Whereas Kenya has installed capacity to produce 1.0 million dozen shirts, the United States quota allows only 360,000 dozen. To survive, Kenyan enterprises must find new export markets.

In the current Development Plan (1994-1996)[2/] the government has underlined policies for future development of textile sector. These include:

(a) Continued government disinvestment with a view of withdrawing completely from the sector. Most of the mills which were being mismanaged were parastatals.

(b) Development of MUBs and EPZs for enhanced export growth for the sector.

(c) Upgrading of technical skills through revitalization of the Kenya Textile Training Institute.

(d) Promoting and establishing small and medium garment making factories to produce high quality and affordable garments in the rural areas.

(e) Ensuring payment of duties on imported fabrics and second-hand clothes and ensuring that imported ready-made garments meet the required Kenyan standard.

C. LEATHER AND FOOTWEAR

The resource base

As stated in Section A of this Chapter, it is estimated that Kenya has approximately 11.7 million cattle, 9.6 million goats and 8.3 million sheep (1992 figures, see Table III.19). The availability of raw hides and skins, however, directly depends upon the number of animals slaughtered and hence the 'off-take' rate per annum is important. On the basis of off-take rates, the local availability of hides and skins to tanneries is in the region of 1.5 million pieces and 4.5 million pieces respectively. Other raw materials such as PVC polyurethane, rubber and other shoe accessories are imported.

There are 14 tanneries in Kenya with an installed capacity which far outstrips local supply. Together they can process 3.3 million hides and 8.3 million skins per year. In 1992, tanneries in operation processed 920,000 cattle hides and 6.5 million skins.

With the liberalization of the economy, exports of hides and skins have increased and this has resulted in a severe shortage of raw hides and skins to the local tanning industries. They are now operating at an average rate of only 50 per cent of installed capacity.

Table III.20. Livestock population, 1992

	Cattle	Sheep	Goats
Livestock (millions)	11.7	8.3	9.6
Off-take rates (percentage)	8.2	28.1	41
Estimated hides and skins (millions)	1.5	2.5	2.0

Source: UNIDO Report US/RAF/92/200 - RALFIS.

The majority of the tanneries' capacities are geared towards the processing of hides and skins up to the wet-blue stage for export which accounts for more than 60 per cent of the total leather produced in the country. Twenty-five per cent is processed up to the crust stage, and 15 per cent to finished stage mainly for local consumption by the footwear industry. In 1994, leather exports earned Kenya KSh68.2 million in foreign exchange, up from KSh35.4 million in 1991.

Past trends

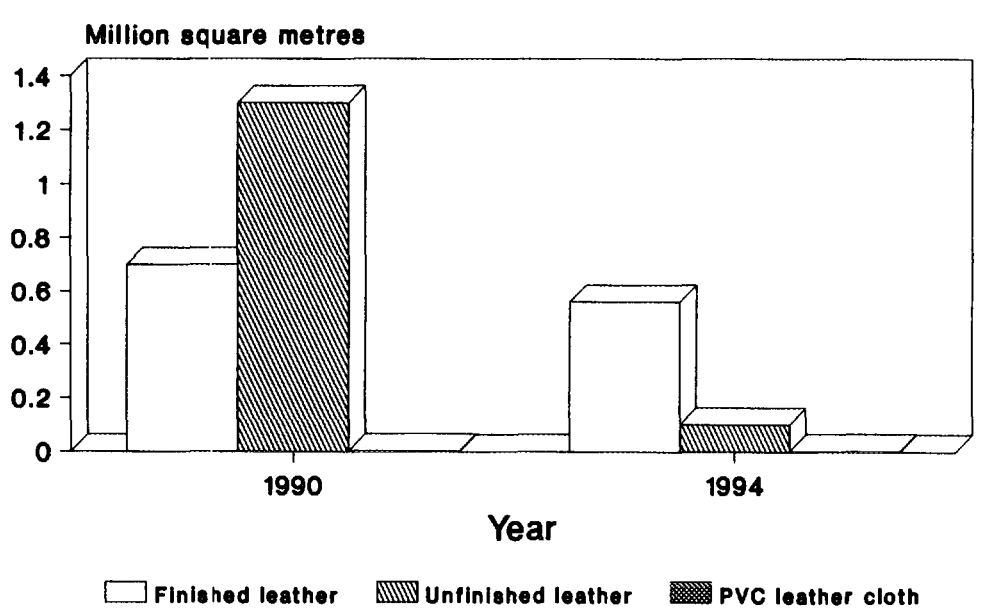
The largest consumer of leather in Kenya is the footwear subsector. This subsector has enterprises ranging from small-scale semi-mechanized, to medium- and large-scale fully-mechanized firms. There are a total of 30 formal factories manufacturing both leather and synthetic footwear. Apart from the formal enterprises, there are hundreds of informal shoe manufacturing units scattered all over the country. The biggest shoe manufacturing firm is Bata Shoe Company with a capacity of about nine million pairs per year.

Table III.21. Production of leather and footwear, 1990-1994

	Unit	1990	1991	1992	1993	1994
Finished leather	Msq	7,637	12,693	15,408	18,703	56,056
Unfinished leather	Msq	1,367,093	1,153,541	1,897,533	217,795	150,609
Sheep ad goat skin	Number	581,217	5,369,935	3,413,955	1,004,764	68,162
Sole leather	Kilogramme	86,924	82,330	81,828	81,391	1,391
Sporting balls	Number	77,440	83,956	86,478	86,478	47,267
Leather shoes	Pairs	1,605,343	1,189,906	1,480,009	1,570,728	1,774,299
PVC leather cloth	Msq	1,795	1,741	1,235	1,329	1,272

Source: Republic of Kenya, Central Bureau of Statistics.

Fig. III.C. Production of selected leather products, 1990-1994
(Million square metres)



The trend in production for the last five years (see Table III.21) shows that there have been marginal increases in the production of leather shoes. It is estimated that the demand for footwear in Kenya is approximately 7.5 million pairs per year. Local production generally satisfies the low income group of consumers, whereas the demand for shoes by middle and upper income persons is supplemented with imports. Of late, some of the footwear manufacturing enterprises are either working under full capacity or closing as a result of competition from imports which are cheaper than locally produced shoes.

On the other hand, export earnings have increased from KSh1.0 million in 1991, to KSh36.3 million in 1994. Volume of export for hides and skins increased tremendously from 410 tonnes in 1992 and 748 tonnes in 1993, to 2,704 tonnes in 1994.

Constraints and prospects

The future performance of the leather and footwear industries depends on how existing enterprises are going to adapt to the changes brought on by liberalization of the economy and the policy environment put in place for promotion of the sector. Because they use locally-sourced resources, hides and skins which are replenishable, as their major raw materials, they have been specifically targeted by the government for promotion. As noted, however, the installed tanning capacity already far exceeds locally available raw hides and skins and the exports of these items has shot up putting some enterprises out of business due to a lack of raw materials. Secondly, cheap imported shoes from Asian countries have contributed to the poor performance of the subsector.

D. WOOD AND WOOD PRODUCTS

The resource base

Kenya's wood-based industries fall into two broad categories, the mechanical wood industry and the pulp and paper industry. Major sources of industrial wood are forest plantations which cover 170,000 hectares. This area is expected to decline in the future, however, because replanting is lagging behind felling. This threatens the long-term supplies of industrial wood.

The projected demand of industrial wood in Kenya for 1995 is estimated to be 1,058 thousand cubic metres and this is expected to rise to 1,209 thousand cubic metres by the year 2,000. The supply in 1995 is projected to be 3,184 thousand cubic metres and should rise to 3,702 cubic metres in the year 2000. In order to have a higher survival rate of young trees the government has introduced a new scheme known as the "Non-Resident Cultivation Scheme" in some parts of the country. The scheme allows landless people grow subsistence crops on government land in return for their tending Forestry Department planted seedlings along with their crops.

Table III.22. Wood-related land use in 1992

Land use	Area in hectares
Indigenous forests	1,310
Woodland bushlands and wooded grasslands	37,590
Farmlands and settlements	9,540
Forest plantations (out of 170,000 hectares)	164
Total	**48,604**

[1]

Source: Republic of Kenya, Kenya Forestry Master Plan 1995-2000.

Wood harvesting in Kenya is based on a licensing system with licences only given to those enterprises that are engaged in wood processing, such as saw milling, plywood, furniture and joinery industries. The raw materials of the sawmills consists of locally produced softwoods estimated at around 2,835 thousand cubic metres of wood. A balance of about 10 per cent is imported from the United Republic of Tanzania, Uganda and Zaire. In the plywood mills, pine accounts for approximately 80 per cent of inputs, followed by cypress. About 771,672 cubic metres of timber are used in furniture and fixture industry, while wood carving uses 600 tonnes per year of hard indigenous wood.

Past trends

There are about 494 sawmills in Kenya with a total installed capacity of 400,000 cubic metres of timber per year. The mills produce only around 200,000 cubic metres a year, however. Of the 494 sawmills, fifteen large mills account for 50 per cent of the subsector's output. The sawmills use small-sized low quality logs and a lot of waste is generated with only 37 per cent of the log recovered as a product. All the timber produced is consumed locally.

Plywood production is relatively new, beginning in the early 1980s. There are now three plywood mills with a total installed capacity of 40,000 cubic metres a year. The products produced are interior grades of plywood having thickness ranging from 3 millimetres to 25 millimetres. Each of the mills is integrated with a sawmill and one has a particle board mill and the other a fibreboard mill, which maximizes raw material utilization.

The furniture and fixtures subsector consists of about 1,200 formal firms and thousands of small-scale entrepreneurs in the informal sector, *jua kali* operators. They produce structural timber products, furniture and miscellaneous wooden articles.

Fig. III.D. Production index of wood and wood products, 1990-1994

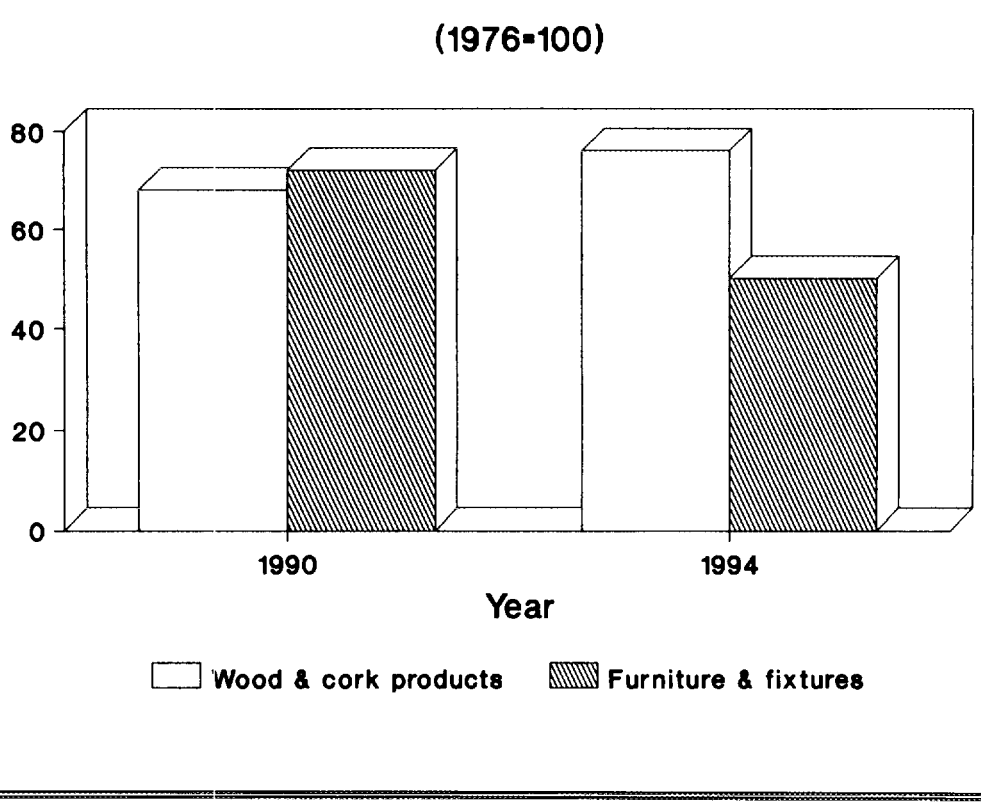


Table III.23. Index of wood and wood products output, 1990-1994
(1976 = 100)

	1990	1991	1992	1993	1994
Wood and cork products	68.1	73.1	74.0	73.7	76.0
Furniture and fixtures	72.9	70.8	46.8	49.6	50.6

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The major constraint in the mechanical wood industry is the use of old and obsolete machinery. Poor infrastructure in forest areas also hinders the regular supply of logs to the sawmills. The sector therefore requires modernization and enhancement of skills to improve productivity and product quality and decrease the wastage during processing. Affordable technologies for using saw dusts and wood wastes in making such items as briquets, wooden toys and other small wooden pieces could be developed through existing research institutions and increase the efficiency and output of the subsector.

Table III.24. Production of wood products, 1990-1994

Product	Unit	1990	1991	1992	1993	1994
Sawn timber	Cubic metres	96,098	82,348	85,444	85,075	87,733
Plywood	Cubic metres	8,307	8,649	8,016	7,662	8,739
Block board	Cubic metres	76,301	74,406	77,015	72,630	70,574

Source: Republic of Kenya, Central Bureau of Statistics.

E. PULP AND PAPER

The resource base

Kenya has six paper mills, all of which use waste paper as their major raw material. Pan African Paper Mills (PAPM) also manufactures from wood pulp. Locally available raw material does not meet the demand of the mills and consequently they must rely on imports.

As mentioned in Section D of this Chapter, almost all industrial wood come from plantations. Under the Kenya Forestry Master Plan, more wood products will be produced to reduce import costs. Also as indicated above, wood harvesting is based on a licensing system. Pan African Paper Mills has a 31 year license from 1973 to 2003 for wood harvesting. There is also agreement whereby PAPM replants trees in areas where it has felled trees.

Past trends

In total, Kenya's six paper mills have a capacity of 145,000 tonnes per year. Local demand is currently estimated at 220,000 tonnes per year.

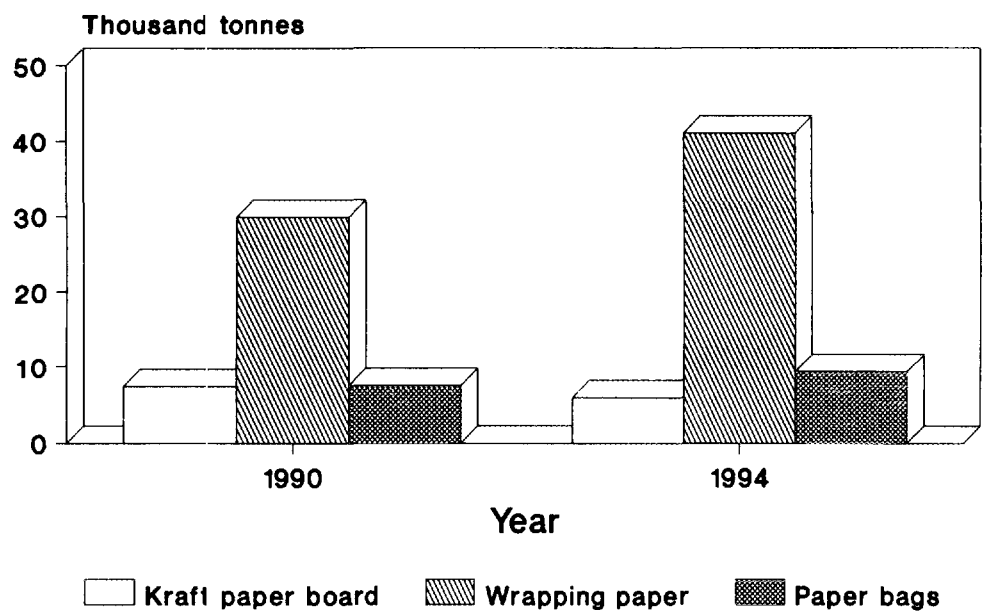
The largest mill is Pan African Paper Mills, which is 51 per cent state-owned. The Birla Group of India and International Finance Corporation hold the other 49 per cent. The other mills, listed in Table III.25, are wholly-owned by Kenyans.

Table III.25. Investment in the paper industry, 1995

Name of facility	Year of establishment	Value of investment (KSh)	Installed capacity (tonnes)
Pan African Paper Mills Ltd	1975	7.4 billion	110,000
Kenya Paper Mill	1957	100 million	9,000
Madhupaper Kenya Ltd	1977	85 million	8,600
Chandaria Industries	1983	20 million	8,400
Kisumu Paper Mill	1982	45 million	8,000
Highlands Paper Mill	1980	20 million	2,000

Source: UNIDO national consultant.

Fig. III.E. Production of selected paper products, 1990 and 1994
(Thousand tonnes)



At the time of the establishment of Pan African Paper Mills, it was expected that it would only engage in the manufacture of paper from wood pulp. However, it has since then invested in three mills with the third one being a de-inking plant. This de-inking plant which has a capacity of 36,000 tonnes per year, can manufacture paper from all types of printed waste paper including

newspapers. PAPM produces various ranges of unbleached and bleached grades of papers such as kraft liner, toilet paper, kraft paper, writing paper, newsprint, computer paper and paper for offset printing. The other five mills produces different types of papers from the ones manufactured by PAPM. They are tissue papers, chip boards, facial tissues, straw boards and cover paper.

Most of the paper produced in the country is consumed in the domestic market. In the last two years, however, Pan African Paper Mills has begun to export small quantities of its products to neighbouring countries. The trend in the production of the paper during the last five years has been down as can be seen in Table III.26 below. The major reason for this decline is the difficulty the existing establishments are having competing with cheap imports.

Table III.26. Production of paper products, 1990-1994

Product	Unit	1990	1991	1992	1993	1994
Kraft paper board	Tonnes	7,439	6,591	7,259	6,390	5,918
Wrapping paper	Tonnes	29,901	27,762	36,643	41,519	41,087
Newsprint	Kilogramme	431,638	435,754	443,598	443,598	..
Toilet paper rolls	Kilogramme	3,461	4,396	6,937	5,635	5,635
Exercise books	Dozen	4,955,801	7,346,852	7,346,852	7,432,688	3,489,031
Envelopes	Dozen	144,675	132,828	88,969	77,006	145,745
Paper bags and sacks	Tonnes	7,596	7,684	10,783	8,945	9,392
Corrugated paper containers	Tonnes	10,695	10,422	9,108	8,125	6,860
Paper corks	Dozen	33,025	26,299	37,651	33,443	..
Teleprinter rolls	Number	48,933	279,250	419,071	628,900	112,376

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

At present there is an inadequate production of pulp in the country due to the relatively small area under forest. For this reason Pan African Paper Mills is currently setting up a fourth plant to utilize bagasse (a byproduct of sugar processing) as a raw material for paper production. Before the recent liberalization of the economy, paper enterprises were unable to obtain enough waste paper in the domestic market and hence they operated at less than 50 per cent of their installed capacity. This constraint has now been removed and it is expected that with importation of high-quality waste paper the existing enterprises will be able to produce high-quality paper for both domestic and export markets.

As there is only one other paper manufacturing plant in the rest of the East African region (in the United Republic of Tanzania), there is a strong demand for imported paper. If Kenyan plants can meet the quality standards and compete on the price front, there is a good export market waiting for them.

Environmental hazards and the handling of hazardous waste have been a great concern of all paper manufactures worldwide. While in Kenya the situation concerning environmental laws and regulations is often unclear (see Chapter I, Section C and Chapter II, Section F), all existing plants have installed effluent treatment ponds for the treatment of waste materials and all recycle water.

PRINTING AND PUBLISHING

The resource base

Paper, which is the raw material in printing is obtained locally from Pan African Paper Mills. Other raw materials which also are available locally are inks, glues and pins. High-grade papers such as conqueror brand, croxley, proost paper and onion skin, however, must be imported.

Past trends

In Kenya, printing is basically a service industry. There are about 220 establishments with concentration in Nairobi (120 firms) and Mombasa (30 firms). The service provided by the industry includes printing of books, wedding cards, business cards, advertising materials, letter heads and receipt books.

Printing and publishing is one of the fast growing subsectors estimated at five per cent per annum as a result of drastic changes in education system and increased school enrolment brought about by increased population growth. The size of enterprises varies from a single unit with only one printer, to highly mechanized establishments with many modem printing machines like Rolland 80 which can print as many as six colours on a single process. The major printing enterprises in the country are Kenya Litho, Colour Print, Jomo Kenyatta Foundation, Kenya Literature Bureau, Government Press, Oxford Printing Press and the printers of the daily newspapers.

Constraints and prospects

Most of the country's printing firms are small, consisting of proprietor, machine operator, and a binder. Most have old machines that can only do one colour job at a time. They are restricted in efforts to expand and modernize because of the lack of collateral required for obtaining bank financing. A further constraint the small firms face is the undercutting by middlemen often referred to as "brokers" who act as a go-between the printers and consumers. These agents deduct their fee from already narrow profit margins.

The survival and growth of this subsector will require investment in the upgrading of technology both in printing equipment and in the local production of high-quality paper. Local demand is strong and the potential market exists, unfortunately what is missing is the financing.

PAPER PACKAGING

The resource base

The basic raw material for the packaging subsector in Kenya is kraft paper and paper sacks. Both are available locally from Pan African Paper Mills. High-quality specialty paper must be imported, however.

Past trends

The paper packaging industry in Kenya can be divided into packaging for fluids and packaging for solids. Fluid packaging is done for milk, fruit juices and other forms of drinks. Currently only one firm supplies paper packaging for fluids, Tetrapak Ltd.

Eight major companies manufacturing various product lines such as corrugated cartons, wrapping paper, grocery bags and envelopes for the packaging of solids. They are: East Africa Paper Bags; East African Packaging; Print Pak; Kenya Paper Bags; Dodhia Packaging; United Bag Manufacturers; and Mafuko Industries. Their overall installed capacity is in excess of 50,000 tonnes per annum. Actual production is about 20,000 tonnes per annum.

Most of the subsector's output is consumed in the domestic market but there are few firms which export to neighbouring countries.

Constraints and prospects

Kenya is developing a demand for high quality packaging for both exported and local commodities, but local packaging is of a generally low quality due to the unavailability of quality packaging materials, especially in the area of paper and paperboard. Despite the quality problems, a lack of competition in the market keeps prices high.

The liberalization of trade and the increased import of quality paper should encourage investment in the packaging industry, as well as a drop in prices and an increase in quality. An area of particular interest to potential investors in Kenya is the recycling of packaging materials. Currently there are few firms dealing with recycling of waste and since this is a growth industry, there are opportunities in this area for user industries which require cheaper but high quality packaging material.

F. PETROLEUM REFINING AND PRODUCTS

The resource base

As noted in Chapter I, Kenya has virtually no known reserves of oil and gas, no currently exploitable reserves, and all its crude oil and gas requirements are imported.

Oil exploration began in the 1950s and has continued on and off since. Concessions have been taken by several oil giants, but only one well has been discovered in recent years in the north-west region of Turkana. It shows only traces of oil and gas.

Past trends

Despite the lack of domestic resources, Kenya does refine oil and is a regional exporter of refined products. The country's one crude petroleum refinery, Kenya Petroleum Refineries Ltd. (KPR), is located in the port city of Mombasa. It was established in 1963 as East African Oil Refinery Limited to provide petroleum products to eastern Africa, including Zaire, Sudan, Rwanda and Burundi. Its initial annual capacity was 1.9 million tonnes of crude processing. In 1974, the annual capacity was increased to 3.3 million tonnes by building a second, almost identical facility. All the crude oil, base oil and chemicals used in the refinery are imported from the Middle East and Europe.

KPR is 50 per cent government owned. The remaining ownership is split among four oil companies: British Petroleum (BP), ESSO and Shell with 12.75 per cent each and CALTEX with 11.75 per cent. KPR processes crude oil, formulates greases and handles and stores product. Other oil companies with activities in Kenya include Agip, Mobil and Total.

KPR processes all crude oil for the oil companies and other users under processing agreements whereby KPR receives an agreed quantity of crude oil, process it and delivers the products charging the users a processing fee. KPR has facilities for the production of liquefied petroleum gas (LPG), premium and regular petrol, kerosene, automotive gas-oil, industrial diesel, jet fuel, bitumen, fuel oil and grease. The bulk of its products, 64 per cent, are delivered via the Kenya Pipeline Company (KPC) to western Kenya. The coast takes 28 per cent, while seven per cent leaves the refinery to other destinations by sea.

The crude oil processed in Kenya is of two main types:

- Very light, low-sulphur content Zakum and Murban which accounts for 80 per cent of the refinery intake.

- Heavy crude, high-sulphur content Arabian heavy, Quata, marine, Burkhan and Kuwait. Whereas in principle, the refinery can process any crude, the heavy crudes lead to a huge surplus of fuel oil (black products) for it which has low demand.

There are two major product lines from crude petroleum oil:

- White products (mainly transportation fuels) including kerosene and LPG.

- Black products (mainly heavy fuel oils) including heavy oils, residual oils, lubricating oil, batching oil, etc.

There are three lubricating oil blending plants in operation in Kenya with a blending capacities of 55,000 tonnes for two of the facilities and 30,000 tonnes for the other. Blending is carried out for the CALTEX, Shell BP and ESSO plants. There is also one company in Kenya known as Optimum Lubricants Limited which operates an oil recovery plant with a capacity of 3.5 thousand tonnes, but only handles 500-600 tonnes due to shortages of feedstock.

The Kenya Petroleum Refinery also manufactures different grades of blown bitumen and it has installed capacity of 45,000 tonnes per annum. While there are another ten firms which manufacture bitumen, they receive their raw bitumen from the refinery.

Performance of the petroleum industry in Kenya during the last five years is indicated in Table III.27. Disruptions resulting from the Gulf War led to a decline in crude and refined petroleum product imports. The exports of petroleum products went down significantly in 1994 as a result of decline in demand from neighbouring countries.

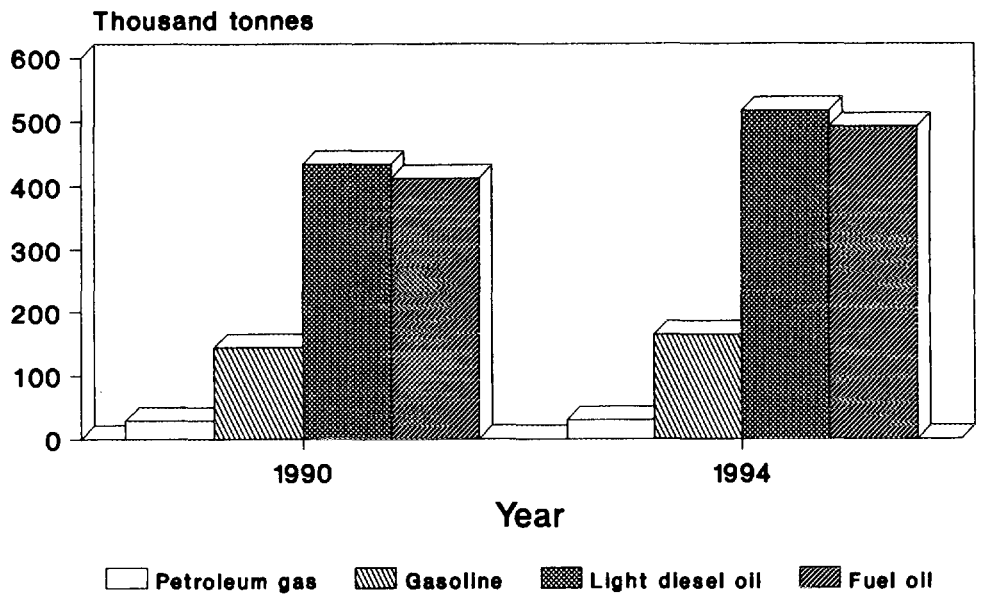
Table III.27. Production of finished petroleum products[a/], 1990-1994
(Thousand tonnes)

	1990	1991	1992	1993	1994[b/]
Liquefied petroleum gas	28.4	26.4	28.3	27.4	29.5
Motor gasoline premium	143.9	145.8	161.0	152.0	164.4
Motor gasoline regular	190.9	182.3	186.9	176.0	164.1
Illuminating kerosene and jet/turbo fuel	492.2	420.5	454.7	426.0	421.1
Light diesel oil	533.0	512.1	553.8	500.0	516.2
Heavy diesel oil and marine diesel oil	30.1	29.9	26.4	29.0	22.4
Fuel oil	411.3	391.7	437.3	500.0	491.4
Export residues	258.2	256.7	233.4	164.0	138.2
Bitumen	31.2	24.0	26.5	9.0	19.6
Intermediates	4.2	-3.8	3.0	6.0	5.7
Refinery usage	101.1	91.9	119.4	101.0	96.7
Throughout = Total output	2,224.5	2,077.5	2,230.7	2,092.0	2,069.3

Source: Republic of Kenya, Central Bureau of Statistics.

a/ Excludes lubricants.
b/ Provisional.

Fig. III.F. Production of selected petroleum products, 1990 and 1994
(Thousand tonnes)



Constraints and prospects

The major constraint facing Kenya's oil refining industry is the difficulty it has in economically processing heavy crude oils. As a result the country imports lighter and more expensive crude oils such as Zakum and Urban with very low sulphur. The equipment at KPR is also largely outdated and not in good working order. Breakdowns are common resulting in low capacity utilization.

A decline in the demand from neighbouring countries also has led to a decrease in exports. Other countries in the region are now importing from other sources in order to avoid the artificially high price of Kenyan refined products which results largely from Kenyan imposed taxes.

Prior to the deregulation of the oil sector in late October 1994, the management of the KPR had proposed refinery modernization projects estimated at KSh2 billion. The projects covered the following units:

- Replacement of pneumatic instrumentation for the process control of the refinery with electronic data transmission.

- Increased LPG production and storage facilities.

- Product upgrading facility to provide a cracking plant for more gas oils, kerosene and LPG from fuel oil and heavy crudes.

This modernization project was expected to include a gasoline improvement plant to reduce the quantity of lead needed in gasoline, and gasoil de-sulphurization plant to reduce the amount of sulphur in gasoil. Facilities also were planned to reduce the amount of sulphur dioxide that is emitted from the refinery fuel gas and also to remove odour and oil from refinery effluent water. Following the deregulation, the proposed capital intensive project has not won the support of private shareholders and the government too has remained non-committal.

Table III.28. Petroleum supply and demand balance, 1990-1994
(Thousand tonnes)

Demand	1990	1991	1992	1993	1994[a/]
Liquefied petroleum gas	27.4	25.0	27.4	25.1	28.4
Motor spirit (premium and regular)	339.9	339.3	346.8	352.0	352.2
Aviation spirit	7.1	6.8	7.7	8.5	7.2
Jet/turbo fuel	302.4	253.5	312.5	342.8	474.4
Illuminating kerosene	184.2	174.5	175.1	164.8	173.1
Light diesel oil	555.4	559.9	571.1	554.2	539.8
Heavy diesel oil	36.5	30.5	27.9	23.0	24.3
Fuel oil	377.4	365.6	370.9	355.9	409.4
Total	1,830.3	1,755.1	1,839.4	1,826.3	2,008.8
Refinery usage	101.1	91.9	119.4	101.9	96.7
Total domestic demand	1,931.4	1,847.0	1,958.8	1,928.2	2,105.5
Exports of petroleum fuels	534.2	635.2	642.8	600.5	447.3
Total demand[b/]	2,465.6	2,482.2	2,601.6	2,528.7	2,552,8
Supply					
Imports:-					
Crude oil	2,178.3	2,059.4	2,235.3	2,274.2	2,173.2
Petroleum fuels	132.6	35.1	93.0	311.1	314.3
Total	2,310.9	2,094.5	2,328.3	2,585.3	2,487.5
Adjustment[c/]	154.7	387.7	273.4	-56.6	-65.3
Total supply	2,465.6	2,482.2	2,601.7	2,641.9	2,552.8

Source: Republic of Kenya, Central Bureau of Statistics.

a/ Provisional.
b/ Difference is due to rounding.
c/ Adjustment for inventory changes and losses in production.

However, the increase in demand for petroleum products requires new facilities to refine both heavy crudes and light crudes, and existing KPR facilities will have to be modernized to provide a new cracking plant to make more gas-oil, LPG and kerosene from fuel oil if it is to meet the demand.

There is also an increasing demand in the country for the recycling of waste lubricants and production of carbon-black used in rubber products, plastics, paints, inks and polishes.

G. CHEMICAL-BASED INDUSTRIES

FERTILIZERS

The resource base

There are two main fertilizer enterprises in Kenya, KEL Chemicals Limited which manufactures single super phosphate and MEA Limited which imports and blends NPK fertilizers. There are also other companies manufacturing foliar feeds. KEL Chemicals Ltd uses sulphuric acid produced at their plant as a raw material in the manufacture of single-super phosphate. The filler materials such as limestone also are available locally. Rock phosphate is imported from the

United Republic of Tanzania. MEA imports manufactured fertilizers in bulk and blends them in their plant. The foliar feed manufacturers also import already formulated foliar feeds.

Past trends

The use of fertilizer in Kenya dates back to the early 1920s. At the time of independence in 1963, fertilizers were mainly used by large-scale farmers most of whom were Europeans. After independence, fertilizer usage was advocated and small-scale farmers started using it to increase yields. Since then fertilizer usage has grown steadily with the increased area under cultivation of food and cash crops. Until recently, all fertilizers used in Kenya were imported through commercial importers and as commodity aid by donors.

Kenya's overall demand for mineral fertilizers is currently about 253,000 tonnes per year and is projected to be over 335,000 tonnes by the year 2000. The most commonly used mineral fertilizers include diammonium phosphate (DAP), triplesuper phosphate (TSP), calcium ammonium nitrate (CAN) and nitrogenous phosphate and potassic fertilizers (NPK). KEL Chemicals which manufactures single-super phosphate has installed capacity of 45,000 tonnes per year. The NPKs are produced by MEA in their blending plant which has installed capacity of 50,000 tonnes but does not produce at this level. The foliar feeds are produced in small quantities and the amount produced depends on the demand.

Table III.29. Fertilizer imports, 1989-1994

Year	Million KSh
1989	69.4
1990	33.3
1991	62.0
1992	75.1
1993	166.6
1994	170.6

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The lack of local resources such as rock phosphate and natural gas is a major hindrance to the development of the chemical fertilizer subsector in Kenya. Added to this, is the capital intensity of the industry and the lack of local capital. There is, however, potential for the following projects:

(i) Establishment of a bio-fertilizer plant in western Kenya to utilize bagasse and wastes from lumber industries.

(ii) Establishment of a fertilizer plant to manufacture DAP, CAN, NPK using imported raw materials.

(iii) Production of nitrogen fixing micro-organisms such as rhizobium which can be used in leguminous plants to increase crop yields.

PESTICIDES

The resource base

The pesticide industries in Kenya consist mainly of firms formulating and repacking pesticide materials. The only raw materials available locally are pyrethrin extracted from pyrethrum flowers, kaolin, soap stone, calcium carbonate, and wattle bark (for tanning extract).

Table III.30. Pyrethrum production, 1990-1994

	Unit	1990	1991	1992	1993	1994
Pyrethrum	Tonnes	8,969	9,942	12,452	17,710	1,994

Source: Republic of Kenya, Ministry of Agriculture and Livestock Development.

Past trends

There are more than 11 firms manufacturing and/or selling various pesticide products in the country. As noted above, most of them import active ingredients and semi-finished products which they formulate and pack. There are a few companies manufacturing insecticides and fungicides such as copper oxy-chloride. Other types of pesticides formulated and marketed in the country include herbicides, miticide plant growth regulators, insect repellents and soil sterilants.

The majority of pesticide enterprises in Kenya are the subsidiaries of multinational companies. In 1994, their investment was estimated at KSh182 million, but it is not clear how much of this was for pesticides since most also produce pharmaceuticals and industrial chemicals. For example, Rhône-Poulenc produces both pesticides and pharmaceuticals, and Twiga Chemicals produces industrial chemicals and pesticides.

Constraints and prospects

As a predominantly agricultural country, Kenya's demand for pesticides is high. Domestic demand, as well as the demand for exports to neighbouring counties, continues to increase. The further development of the industry based on the locally available pyrethrin and imported products is likely to be encouraged as a means to increase the yield of food crops in particular.

One constraint the subsector faced in the past which hampered investment was that duty was paid on the import of raw materials used in the pesticide industries, while most of the finished products were imported duty free. Most such quirks in the import regime now have been eliminated. A continued hindrance, however, is the high cost associated with environmental controls such as the installation of effluent treatment plants.

RUBBER

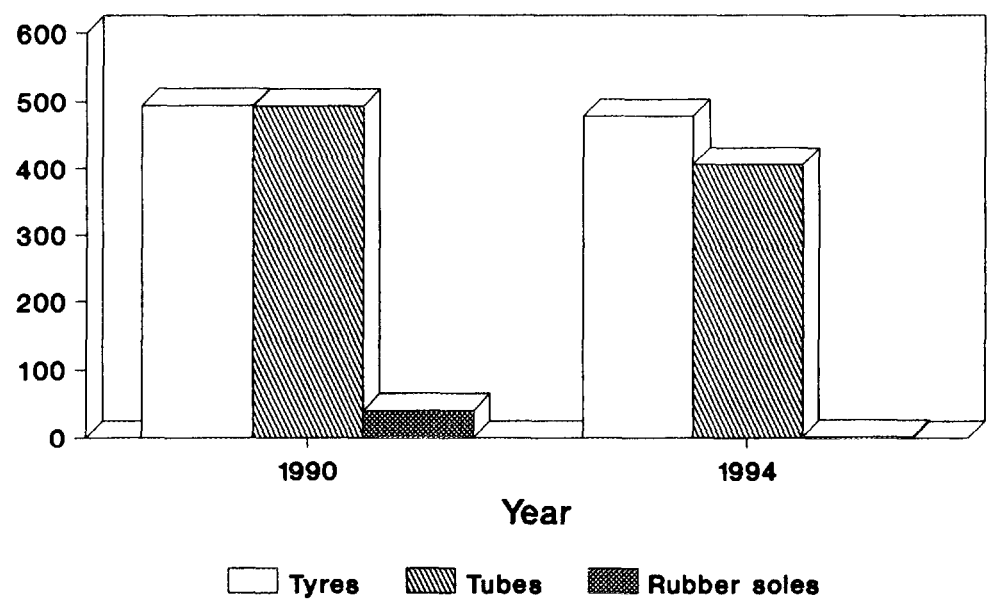
The resource base

Most of the raw materials used in rubber industry are imported, only zinc oxide, aluminium silicate, whiting and kaolin are available locally.

Past trends

There are about 41 rubber manufacturing firms which mainly deal in tyre manufacturing and retreading, and the production of shoe soles, hoses, mats, repair materials and other industrial rubber products. Capacity utilization differs greatly depending on the type of the firm and product.

Fig. III.G. Production of selected rubber products, 1990 and 1994
(Thousand units)



The demand for rubber products in Kenya is generally high and as a result, in order to meet domestic demand, imports have been increasing yearly. Rubber products are sold mainly in the domestic market and to COMESA countries.

Table III.31. Production of rubber products, 1990-1994

Product	Unit	1990	1991	1992	1993	1994
New MW tyres	Number	494,632	462,116	493,067	456,134	478,407
New MV tubes	Number	493,843	466,843	407,429	415,751	406,672
New bicycle tyres	Number	272,752	255,322	344,866	243,735	96,390
Retread tyres	Number	318,165	327,104	288,088	26,712	329,446
New bicycle tubes	Number	318,904	310,762	393,084	354,113	179,391
Rubber shoes	Number	7,690,930	5,045,287	3,177,654	4,046,286	134,306
Rubber soles	Number	40,297	1,326	1,062	1,036	1,704

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The major constraint facing this subsector is the lack of locally available natural rubber as a raw material. Since the rubber plant is a tropical crop, however, proposals have been put forward to begin its cultivation. The future development of the subsector may well depend on how successful such a scheme can be.

PHARMACEUTICALS

The resource base

Kenya's pharmaceutical industry relies heavily on imported raw materials. Over 95 per cent of the raw material inputs are imported. Locally available sugar, salts, glucose and ethanol do not exist in pharmaceutical grade. The locally available packaging materials include plastic bottles, plastic caps, cartons, insulations, labels, leaflets, gum tapes, metal tins, glue and aluminium tubes.

Past trends

The pharmaceutical industry in Kenya has grown tremendously since independence. In 1963, there were only two pharmaceutical firms, while in 1995 there are 30 registered pharmaceutical companies producing a wide range of products. The sector has expanded and diversified its product base to become one of the largest in the COMESA region. In fact, nearly one-half of the COMESA pharmaceutical industry is located in Kenya. Most Kenyan pharmaceutical enterprises manufacture generic essential drugs. Local demand is met by production and some export to other COMESA countries takes place.

The major pharmaceutical manufactures in Kenya are: Dawa Pharmaceutical Ltd; Smith Kline Beecham Ltd; Boots Pharmaceuticals; Glaxo/Welcome (Kenya) Ltd; Elys Chemical Industries Ltd; Cosmos Ltd; and, Laboratory and Allied Ltd. Dawa Pharmaceutical was formed in 1978 as a joint venture between the Kenyan and Yugoslav Governments. The majority of other pharmaceutical enterprises are locally owned by Kenyan Asians. While the sector can produce over 90 per cent of the essential drug list, overall capacity utilization stands at around only 40 per cent.

Responsible for the provision of health care to approximately 12 million Kenyans (roughly 50 per cent of population), the government is a major institutional buyer of locally manufactured drugs. Non-governmental organizations (NGOs) care for a further 10.8 million persons (approximately 45 per cent of the population) and are the second largest purchasers of drugs. The remaining five per cent of the population pays for health care in private institutions.

Table III.32. Production of drugs and medicines, 1990-1994

	Unit	1990	1991	1992	1993	1994
Drugs (tablets/capsules)	Kilogramme	1,711,747	1,369,664	1,140,527	1,197,950	1,127,678
Drugs (liquids)	Kilogramme	501,225	141,519	1,383,431	1,383143	640,332
Pharmaceuticals	Kilogramme	103,650	27,506	315,195	389,574	92,182

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

Imported raw materials cost the Kenyan pharmaceutical industry over $30 million per annum. The source of these raw materials is generally Asia, but most are imported through Europe which makes them very expensive. The end result is that the locally manufactured finished products are often more expensive than imported products. It is therefore difficult for the local pharmaceutical manufacturers to compete with imported finished formulations which are normally manufactured under a mass production basis.

As noted above, currently the average capacity utilization of pharmaceutical industry is 40 per cent which can be improved with aggressive strategies to secure export markets. To increase the profit potential of the industry, however, and thus encourage increased production, research and development into locally available raw materials must be undertaken. Local producers are hoping for such Research and Development promotion and support by government ministries and NGOs.

Identified potential pharmaceutical investment projects include the manufacture of quinine by extraction from cinchona and its subsequent purification and synthesis to quinine sulphate. There is also potential for the extraction of hecogenin from sisal waste and synthesis of betamethsasone from hecogenin. To encourage and support such investment, the growing of more Cinchona trees and rehabilitation of sisal firms will be needed.

SALT

The resource base

The bulk of Kenya's salt is obtained by evaporation of sea water and most salt manufacturers are located along the coast. The exception is Magadi Soda Company which extracts its salt from the waters of Lake Magadi. Locally available raw materials are calcium carbonate and brine. The chemical additives, potassium ferrocyanide and potassium iodate, are imported.

Past trends

There are seven registered companies manufacturing salt with an annual production capacity of 180,000 tonnes per year. The major manufacturers are Salt Manufacturers Ltd which has a capacity of 60,000 tonnes per year and produces iodized refined table salt; Fundisha Salt Works which has a capacity of 45,000 tonnes per year and produces coarse salt, dried crushed salt, pure vacuum refined salt and cattle salt; and Magadi Soda Company with capacity of 40,000 tonnes per year and which produces coarse salt. There are also salt packaging enterprises such as Limuru Industries Ltd; Anitnatic Feeds Ltd; and Pack Industries.

The local demand for salt is about 110,000 tonnes per year which leaves a balance of 70,000 tonnes per year for export to the COMESA countries.

Constraints and prospects

Because the salt is air-dried in salt-harvesting ponds, periods of wet and overcast weather result in low salt harvests. To maintain self-sufficiency, salt harvesting should be maximized during favourable weather condition. Algae also has been found to invade the salt-harvesting ponds and the ponds have been found to seep into the mangrove swamps which are important ecosystems.

With new technology to overcome the environmental concerns, however, the subsector does have potential. There are also possibilities for new products and production methods such as the purification of sodium chloride for use in the manufacture of saline solution

SOAPS, DETERGENTS, DISINFECTANTS, PERFUMES AND COSMETICS

The resource base

Raw materials for the manufacture of soap are vegetable oils (such as coconut, oil castor, oil palm oil, olive oil, etc), acid oils tallow, caustic soda, and pigments and perfumes used mainly in toilet soaps. Most of these are available locally. The most common forms of soap produced in Kenya are bar soap used for domestic laundry, cake forms for toilet soaps, flakes used in baby laundry and miniature forms used by hotels for bathing needs.

The major raw materials for detergents are surfactants, builders, fillers, soil suspenders, foam boosters and bleach. The products manufactured in Kenya are powder detergents used for domestic laundry, liquid detergents for industrial and commercial uses, laundry cake or bar detergents, and paste detergents. The three enterprises making powder detergents are East African Industries Ltd, Kapa Oil Refineries Ltd and Orbit Chemical Industries Ltd. These three have a combined production capacity of 120,000 tonnes per year.

The inputs used in the manufacture of scouring powders: basic alkalis; phosphates; silicates; and surface active agents, are imported. The products manufactured are used in the cleaning of floors, walls, metal surfaces, china ware and marble.

Approximately 95 per cent of the raw materials used in the manufacture of cosmetics and perfumes are imported. The types of perfumes and cosmetics being made in Kenya are skin care creams and lotions, hair tonics, hair gels and pomades, petroleum jellies and sheens, shampoos, talcum powders, lipsticks and nail polishes, and anti-perspiration and deodorant sprays. However, a survey of the cosmetic and perfumes products in the market indicates that imported products far out number the local varieties, especially in the area of perfume.

The common raw materials in the manufacture of disinfectants and dentifrices are imported. The increased awareness on the importance of quality hygiene has increased the use of disinfecting preparations. These formulations which are anti-bacteria are essentially required for home use, industries, milking parlours, hospitals etc. There are five registered manufactures with an average capacity utilization of 42 per cent. In Kenya, toothpaste is the most common dentifrice and currently there are two large enterprises making toothpaste.

Past trends

In recent years this subsector has expanded and diversified to become one of the larger foreign exchange earners for the country. It is also a subsector where micro and small enterprises are numerous and has played a key role in the development of the national economy. The small enterprises and the informal sector are mainly found in the manufacture of laundry bar soap, liquid detergents and disinfectants where the technology is simple and affordable, and raw materials are easily available.

There are currently 43 registered firms (this does not include the informal sector) in this subsector. Classification of the firms by product manufactured is as follows: 16 produce soap; three produce powdered detergent; 13 produce liquid detergent; 16 produce cosmetics and perfumes; seven produce scouring powder and two produce toothpastes. As can be seen, several of the enterprises produce multiple products. There are also many small-scale enterprises involved in the manufacture of soap. Production of soaps and detergents have generally been on the rise in recent years, after dropping with the economic down-turn in 1991.

Table III.33. Production of soap, cleaning preparation and miscellaneous chemical products, 1990-1994

Product	Unit	1990	1991	1992	1993	1994
Laundry soap	Kilogramme	22,699,328	24,806,993	23,011,326	24,236,342	32,711,000
Washing soap	Kilogramme	14,503,130	13,964,118	15,789,883	15,740,008	15,048,000
Detergent (powder)	Kilogramme	36,211,279	24,067,054	21,146,662	21,949,821	16,366,000
Tooth paste	Litre	1,484,437	1,805,249	1,953,125	1,914,675	1,777,000
Detergent (liquid)	Litre	439,364	543,595	454,451	483,073	490,000
Cream lotions	Litre	1,315,282	1,575,561	2,052,357	1,729,648	1,850,000
Hair oils and tonics	Litre	69,961	95,171	85,785	216,298	216,298
Liquid paraffin and castor oil	Litre	217,383	218,617	213,524	215,494	207,746
Cosmetics	Litre	833,359	761,279	1,185,288	1,229,057	1,111,696
Matches	Boxes	287,278	276,541	369,894	283,064	279,966
Shoe polish	Kilogramme	890,832	888,800	1,156,040	1,150,144	750,002

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The major constraint facing the future development of this subsector is the lack of exploitation of locally available raw materials. Kenya currently spends large amounts of foreign exchange to import raw materials for this subsector. The following proposals have been made through various studies to provide raw materials locally:

(1) Production of caustic soda using sodium chloride by electrolysis or using Magadi soda (Na^2CO^3) and lime.

(2) Growing of coconut seed and extraction of coconut oil for use in soap and cosmetic production.

(3) Development of essential oil crops such as geranium, jasmine, tagetes, vetiver etc. to provide essential oils for use in the manufacture of cosmetics, perfumes and pharmaceuticals.

(4) Development of an effective tallow collection to provide more tallow for the soap industry.

(5) Development of pine trees to provide pine oil and turpentine oil for disinfectants and use in the cosmetics industry.

BASIC INDUSTRIAL CHEMICALS

The resource base

The basic industrial chemicals subsector in Kenya relies on both locally available and imported raw materials. Some of the raw materials available locally are carbon dioxide, hydrogen, acetylene, silica, fluorspar and sodium chloride. Imports include sulphur, aluminium compounds, ammonium nitrate and chemical compounds which can be formulated into various products.

Past trends

This subsector consists of enterprises manufacturing intermediate chemicals which are used as inputs in other industries. The most important chemicals produced are: sulphuric acid; soda ash; sodium hydroxide; sodium sulphate; alcohol; chloro-alkalis; industrial gases; and carbon dioxide. There are some 20 enterprises manufacturing in Kenya, with an average capacity utilization rate of 60 per cent. The majority of these firms are privately owned with an exception of the Kenya Flourspar Company which is wholly owned by government.

Magadi Soda Company is the largest manufacturer and produces soda ash. Most of the chemicals are consumed in the domestic market with some being exported to the COMESA Countries. Soda ash and fluorspar are mainly produced for export to Europe, South Africa, Asia and the Middle East.

Table III.34. Production of basic industrial chemicals, 1990-1994

Product	Unit	1990	1991	1992	1993	1994
O^2, N^2, H^2	Cubic metre	4,490,015	3,450,759	3,313,689	3,321,707	3,701,737
Acetylene	Cubic metre	318,789	310,554	316,965	305,889	266,061
Electrodes	Cubic metre	532,322	543,793	648,718	698,614	576,795
Wattle extract	Tonnes	7,321	10,793	10,793	5,089	2,510

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The level of technology has been the greatest constraint to the basic chemicals subsector in Kenya. Unfortunately, this technology and its sometimes inappropriate use has led to environmental damage. For example, companies manufacturing sulphuric acid have tended to cause environmental pollution through the emission of sulphur compounds into atmosphere, especially when scrubbers were being cleaned. The adoption of new and clean technologies is critical for the future of this sector.

Earnings from this subsector have been limited in the past by the fact that many of the chemicals being exported from Kenya, such as soda ash and fluorspar, are in crude form and thus command only a low price in export market. Processing to a semi-finished or finished state is highly desirable in order to add-value and maximise returns. For example, a plant to manufacture sodium hydroxide could take advantage of local supplies of soda ash.

PLASTICS

The resource base

Most inputs used in the manufacture of plastics in Kenya are imported. The main source markets are European Community and Asian countries. Only plastic dyes are manufactured locally. But the inputs for their manufacture also must be imported.

Past trends

There are over 100 plastic manufacturing enterprises in Kenya. Most of them are located in Nairobi and Mombasa. Because the subsector provides affordable alternatives to many expensive

metal, rubber and ceramic products, it has grown relatively steadily and strongly in recent years. Demand for plastics in the building and consumer household products sectors has been extremely strong. The major products produced in Kenya are PVC pipes and fittings, polythene packaging bags, plastic crates and bottles, plastic shoes, PVC floor tiles, household plastic wares, and plastic containers for domestic and industrial use.

In 1991 and 1992, the subsector recorded growth rates of 15.3 per cent and 9.1 per cent respectively. In 1993, it grew by 10.4 per cent. Due to a shift in demand and shortage of foreign exchange, however, the production of PVC floor tiles dropped dramatically (36.9 per cent) and resulted in only marginal growth for the sector as a whole in 1994 of 1.5 per cent. The production of plastic shoes was also off in 1994 due to competition from cheaper imports. Growth products in 1994 were, polythene film bags and PVC pipes. Plastic bottles and crates maintained their 1993 level of output.

Due to the broad spectrum of products manufactured, the level of capacity utilization for the various firms differs greatly. The average for the sector as whole, however, is only 50 per cent.

Constraints and prospects

In general, the plastics industry in Kenya is fairly well-developed. The problem of excess capacity is attributed in part to too many firms competing for the same small market. Increasing the rate of utilization and expanding the sector will require finding new markets in the surrounding regional area. Despite the number of firms active, Kenya still lags behind demand in the production of some plastic products such as electrical plugs and sockets, and automotive plastic spare parts. There is therefore scope for new investment and in fact, some is taking place.

The major constraint the sector faces is the need to import most raw materials and the fact that those available locally are petroleum based and thus costly.

H. BUILDING PRODUCTS

The resource base

Kenya possesses many resources used the production of building materials. Not all, however, are exploited. For example, the raw materials for the manufacture of cement that may be obtained locally are: limestone, kunkur, iron ore and tuff. Gypsum, although present in Kenya, is not exploited and instead is imported from Spain.

In the production of ceramics, the country is endowed with ample cheap and exploited resources. These include; clay, soapstone, feldspar, dolomite and silica sand. Glaze is not available locally, however, and is currently imported from Italy. Glass production also requires silica sand, feldspar and dolomite, as well as soda ash and salt cake which are also available locally.

Although Kenya is endowed with vast deposits of building stone, quarrying is not well developed and the country has outdated soil moving machinery and stone cutting equipment.

CEMENT

Past trends

Two Kenyan enterprises produce cement: East African Portland Cement Company (EAPCC) and Bamburi Portland Cement Company Limited (BPCC). EAPCC is located in Athi River some 25 kilometres from Nairobi. It was incorporated in 1957 and began the manufacture of cement in 1958 using the wet process with an installed capacity of 120,000 tonnes per year. The plant was later modified and expanded, raising capacity to 350,000 tonnes per annum.

Bamburi Portland Cement Company Ltd which is located in Mombasa, was commissioned in 1954. Since then, additional production lines have been installed and it now has a capacity of 1.2 million tonnes per year. Thus, the current total capacity for cement in Kenya is 1.55 million tonnes per year. While EAPCC concentrates on supplying the local market, BPCC deals with both local and export market. Exports are both in the form of clinker and bulk cement to Mauritius, Reunion, and the Seychelles, and bagged cement to the Comoro Islands, Uganda, Somalia and Sudan.

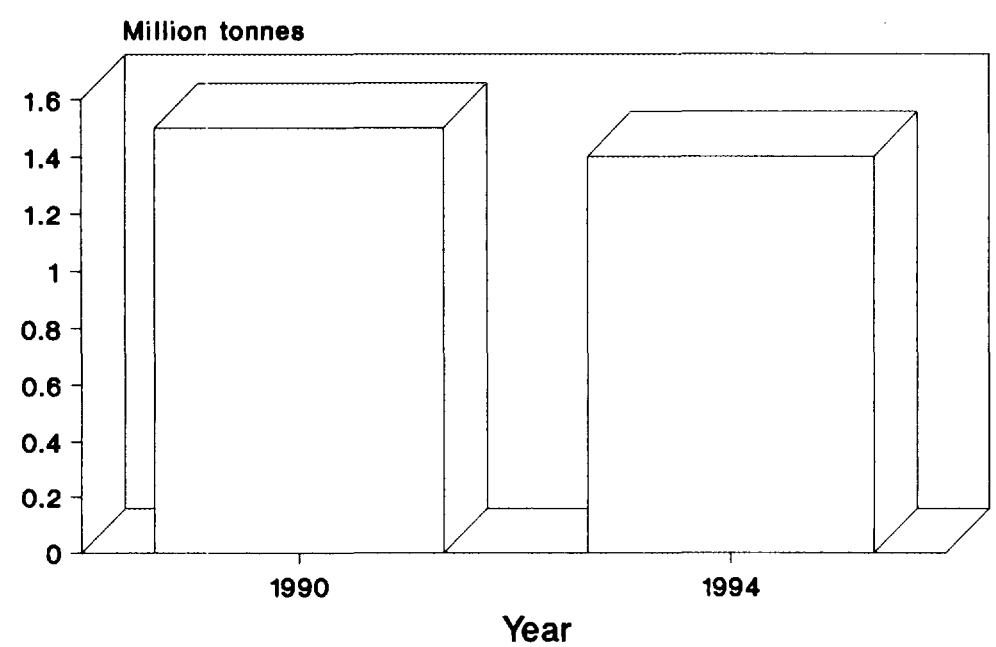
Table III.35. Cement production and utilization, 1990-1994
(Thousand tonnes)

Year	Production	Imports	Consumption and stocks	Exports	
				Uganda and United Republic of Tanzania	All other countries
1990	1,511.5	-	1,182.0	44.6	288.0
1991	1,422.6	1.5	1,119.2	54.1	250.8
1992	1,507.3	2.7	1,118.2	54.1	337.7
1993	1,416.2	0.1	894.2	132.7	389.4
1994[a/]	1,452.3	1.9	858.5	182.8	412.9

Source: Republic of Kenya, Central Bureau of Statistics.

a/ Provisional.

Fig. III.H. Cement production, 1990-1994
(Million tonnes)



In the 1990-1994 period, the production of cement has been near the capacity level ranging from 1.4 to 1.4 million tonnes. In 1993, however, consumption began to falter, dropping from 1.1 million tonnes to 1992, to 858 thousand tonnes in 1994 (see Table III.35). Exports to Uganda and the United Republic of Tanzania rose significantly (almost quadrupling) as did exports to all other countries, almost completely compensating for the drop in domestic demand.

Constraints and prospects

Despite the slump in consumption in 1993 and 1994, official estimates are for domestic demand to increase at a rate of seven per cent per year in the coming years. Given the present capacity of the two existing plants, this means that by the year 2000, Kenya will need to import significant quantities of cement unless new or greatly expanded production facilities are established.

Cement production in Kenya is also relatively costly due to the use of old and medium technologies. BPCC has high foreign exchange needs for the purchase of spare parts, while EAPCC is affected by its use of the wet process' technology which requires more fuel oil which makes the process costly. The problem of cement supply and demand is compounded by the fact that the BPCC plant is now run down and is suffering from the breakdown of the basic plant and equipment which have outlived their productive lives.

The second problem facing the cement subsector is transportation. Cement is a bulky commodity, both as inputs and as the finished product. Although the majority of raw materials are available locally, they must be transported from the quarries to the production facility. For example, limestone has to be transported over 100 kilometres from quarries to EAPCC. Bamburi has to transport its finished products to distances over 1,000 kilometres from the factory. Given the existing transport infrastructure in the country and surrounding region, these are great distances, and the costs are included in the pricing structure.

In order to reduce production costs, a programme of rehabilitation and modernization is being undertaken at EAPCC. The project is funded by the Government of Japan and involves changing the technology used from the wet process to the dry process. It also entails an increase of the installed capacity from 350,000 tonnes per year, to 550,000 tonnes per year with the possibility of further increasing it to 700,000 tonnes per year.

The Government of Kenya is also encouraging the establishment of two additional cement plants in the country. An initial study of the possibility of locating a plant on the south coast has been undertaken and there is also discussion over the establishment of a facility in the Shimoni area. The later has a proposed capacity of 600,000 tonnes per year. The Industrial and Commercial Development Corporation (ICDC) are the promoters of this project and the feasibility study was conducted jointly with both the Japanese and Kenyan Governments. The Japan Consulting Institute (JCI), Tomen Corporation and Osaka Cement of Japan also are participating in this project.

Additionally, a study has been undertaken to explore the feasibility of establishing a cement factory in Western Kenya with an installed capacity of 300,000 tonnes per annum. The project is being promoted by Kerio Valley Development Authority, but no commitments had been signed towards the implementation of the project as of October 1995.

The Government of Kenya also is promoting the establishment of mini-plants in areas of the country where raw material quantities would not support a large-scale facility. Priority has been given to the establishment of such mini-plants and investment is being encouraged.

Further constraints to the subsector are the fact that gypsum, which is available locally is not being exploited, but rather is imported form Spain. Studies are currently under way by KenSwiss Company Ltd to look into possibility of producing high quality gypsum. There is also need for local fabrication of spare parts for cement plants. Such measures if implemented fully, would improve cement production in Kenya.

CERAMICS

Past trends

There are five firms in Kenya involved in the production of ceramics. They also are indirectly involved in the mining and quarrying of their raw material inputs. The three major ceramic-ware producers are Saj Ceramics, Ceramic Manufactures Ltd and Atlantics Ceramics Ltd.

Ceramic Manufacturers, formerly Ceramic Industries (East Africa) Ltd, began operations in 1968 with the manufacture of crockery. In the 1980s, the company introduced two additional product lines and the company now produces sanitary ware, crockery, and wall and floor tiles for the domestic market. Saj Ceramics Ltd was incorporated in Kenya in 1991 and began operations in 1992. It is the newest of the three ceramics firms in the country and specializes in the production of glazed wall and floor tiles, offering a wide range of customer-oriented colour choices. Atlantics Ceramics produces wall and floor tiles, crockery, and sanitary ware.

The three ceramic factories have combined capacities of 2.1 million pieces of crockery, 7.7 million pieces of tiles (wall and floor) and 60,000 thousand pieces of sanitary ware per year. Saj Ceramics operates at 100 per cent capacity and produces 600,000 square metres of tiles per annum in two sizes (6"x6" and 8"x8"), 1,400 square metres of the 6"x6" and 1,100 square metres of the 8"x 8" per 24 hour working day. In the past, the three factories sold their products in the domestic market. With the liberalization of the trading regime, however, all are reported to be exploring the possibility of exporting to other COMESA countries.

Ceramic production has been erratic in recent years and overall production is well under capacity currently. Because of its sole dependence on the domestic market, the drop in both private and public construction in 1993 and 1994, as a result of a lack of public sector funds and high interest rates, has had its toll on the building materials sector and especially ceramics.

Table III.36. Production of clay and non-metallic products, 1990-1994

Product	Unit	1990	1991	1992	1993	1994
Floor and wall tiles	Tonnes	6,688,156	1,960,105	2,309,894	4,394,586	1,835,148
Roofing tiles	Tonnes	6,581	12,240	7,141	8,002	3,552
Cement	Tonnes	1,515,500	1,422,633	1,507,285	1,416,523	1,452,325
Clinker	Tonnes	988,459	1,000,153	1,092,967	1,092,767	1,175,860
Limestone	Tonnes	21,771	12,083	9,931	11,534	..

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

Current ceramics production in Kenya does not meet domestic demand and the country imports ceramic goods. Unfortunately for local producers, the price of these imports tends to be relatively low and the quality relatively high. The subsector is plagued with a lack of technological know-how and poor management skills. These factors are said to be the cause of the collapse of Ceramic Industries (East Africa) Ltd prior to its sale and name change to Ceramic Manufacturers.

The future success of the sector will depend on how well it can meet the new competition, as well as upgrade its production to meet export standards. Training in ceramics technology thus will be critical. Upgrading management skills, especially marketing also will be necessary for the successful identification and penetration of new markets.

GLASS

Past trends

The production of glass for use in the construction industry as a building material is not an important subsector in Kenya. The country imports all of its sheet glass needs. The most common sheet glass used by the Kenyan building industry is 3 millimetres.

There are three container glass enterprises in Kenya; Central Glass Industries, EMCO and Mohan Meakin Glass Works, however. All are privately-owned enterprises and they have a total installed capacity of container glass of 55,500 tonnes per annum. Local demand is approximately 38,000 tonnes per annum. Central Glass Works operates at full capacity, while Mohan Meakin and EMCO are operating under capacity. The products of the subsector include lantern globes, water glasses and jars, and glass bottles such as those used in beer and soft drink industries. Impala Glass works is engaged in moulding and cutting vehicle windscreens using imported sheet glass.

Table III.37. Production of glass products, 1990-1994

Product	Unit	1990	1991	1992	1993	1994
Glass bottles	Tonnes	21,825	4,899	19,333	21,572	33,572
Wind screens	Number	45,532	41,168	54,195	93,476	114,084

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

Lack of a sheet-glass manufacturing plant is a major constraint in the development of the glass subsector as part of the building materials sector. Local demand is estimated at only 16,000 tonnes per annum which is too low to make an investment based on the local market economically viable. Many in Kenya believe that it is important for the country to be able to manufacture sheet glass domestically, however, and are exploring alternatives that might make investment in such a production facility feasible. One such proposal is the possibility of using the float process rather than the Foucault process.

I. IRON AND STEEL

The resource base

The raw materials used in the production of iron and steel are scrap metal, billets, hot rolled coils, wire rods, limestone and iron ore. Most of these items are imported from Zimbabwe, Japan, Belgium and South Africa, except for scrap metal which is sourced locally.

Past trends

Kenya's iron and steel industry can be classified into five categories in accordance with the products manufactured. These are: steel making and hot rolling; wire and wire products; galvanized and cold rolling steel coils; pipe manufacture; and castings. The major products under the steel making and hot rolling process are pencil ingots billets, wire rods, rounds, section channels and reinforcing bars. The major enterprises involved in the production of these items are ROLMIL (Kenya) Ltd, EMCO Steel Works Ltd, City Engineering Works Ltd, Kenya United

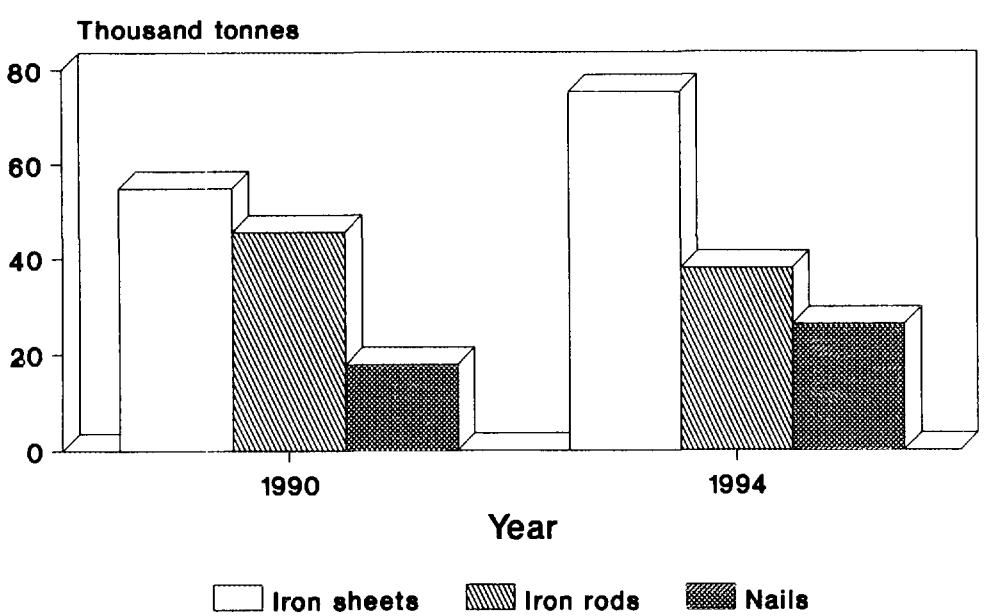
Steel Company and Steel Billet Castings Ltd. The total steel rolling capacity in the country is 500,000 tonnes per year, while total smelting capacity is about 95,500 tonnes.

There is only one enterprise, Special Steel Mills, which produces wire rod and wires that are used by about nine enterprises for further processing into other wire products such as nails rivets, nuts, bolts, barbed wire, chicken wire mess, fencing wire and other wire products. The installed capacity for wire and wire products is about 286,000 tonnes per annum.

The products manufactured from galvanising and cold rolling steel coils, are galvanized corrugated iron sheets, steel drums, window louvres, wheel barrows, gutters and water pipes. There are two cold rolling plants with installed capacity of 204,000 tonnes per annum. The two firms are Mabati Rolling Mills Ltd and Standard Rolling Mills Ltd.

Six firms manufacture large and small diameter, circular and square pipes for use in such activities as water distribution, sewage disposal and furniture manufacture. The products of the casting enterprises are man-hole covers, sanitary fittings, pumps, castings and impellers, pulleys, and sugar crushing rollers. There are about 16 major castings foundries with a total installed capacity of 8,500 tonnes per year. Most of the output of the iron and steel sector is consumed in the domestic market with a small percentage (primarily gas cylinders) being exported to COMESA countries.

Fig. III.I. Production of selected metal products, 1990 and 1994
(Thousand tonnes)



Unlike many of the industrial sectors in Kenya, the liberalization of trade did not have a severe or lasting adverse effect on the demand for locally produced iron and steel. In fact, the metals sector as a whole grew by 11.3 per cent in 1994 on the basis of an increased availability of foreign exchange and trade liberalization, following a 0.2 per cent rise in 1993.

The production of galvanized iron sheets was up 3.9 per cent in 1994, following a rise of 3.8 per cent in 1993. The production of nails, exhaust pipes, metal beds and water tanks all increased in 1994 as well. Demand by the *jua kali* sector, a large user of metal products, contributed to the good performance of iron and steel.

Table III.38. Production of metal products, 1990-1994

Products	Unit	1990	1991	1992	1993	1994
Galvanized iron sheets	Tonnes	54,996	88,276	69,706	72,355	75,249
Iron rods and bars	Tonnes	45,582	46,703	43,932	41,454	37,768
Sulfurias	Tonnes	1,050	1,230	1,398	883	792
Nails	Tonnes	17,764	17,760	15,046	14,026	26,046
Wheel barrows	Number	31,028	30,186	24,663	24,473	25,952

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The problems facing iron and steel industry in Kenya include power interruptions, underutilization of installed capacity, a limited source of scrap metal and a scarcity of specialized steel technologists and metallurgists. For the future development of the sector, there is thus a need to increase both the quantity and quality of iron ore available in the country. Many of the existing plants also will need to be rehabilitated, and the plant and equipment, as well as technology and the skill level upgraded.

J. NON-FERROUS METALS AND MINERALS

The resource base

In Kenya, the non-ferrous metals sector relies on locally sourced scrap as the main source of its inputs, as well as imported scrap and ingots. Mined non-ferrous metals that are exploited commercially include copper, gold and galena (lead sulphide). A thorough minerals and metals survey of Kenya does not exist, but it is believed that the country still has significant reserves of gold. Copper is found in the southern portion of the Nyanza Province and in the Western Province and some indication of presence has been recorded in the northern and central parts of the country. Chromite also is present in the country but is not exploited at this time.

Past trends

There are about 40 non-ferrous scrap dealers and scrap smelters in the country with a total installed capacity of 10,000 tonnes per year. The industry is divided into four categories:

(1) Factories using scrap as raw materials to produce sheet metal (Kalu-works, Rolling Mills Ltd and Narcol rolling Mills);

(2) Factories using scrap as a the raw material to produce coatings (Kens Metal Ltd and Ribbon Ltd);

(3) Factories using scrap and ingots to produce wire products (Aluminium Extruders and Booth Manufacturers); and

(4) Downstream factories producing various non-ferrous products (East Africa Cables and Associated Batteries).

Statistical information on non-ferrous products derived from smelting of scrap metals is also not well developed in Kenya. The information has therefore to be collected from individual industries and this requires a benchmark survey to cover the sector. Available information from the records in the Ministry of Commerce and Industry indicates that the quantities of products produced can roughly be estimated from an average of raw materials used as follows:

Aluminium	4,340 tonnes per year
Copper	740 tonnes per year
Lead	2,790 tonnes per year
Zinc	3,000 tonnes per year
Brass and bronze	330 tonnes per year

Aluminium scrap is the most commonly used non-ferrous scrap in the country. Processing facilities in the country have a combined capacity of 4,340 tonnes per year. The main generators of aluminium scrap in Kenya are Kenya Power and Lighting Co. Most scrap is in the form of aluminium wire, aluminium engine blocks from motor vehicles, aluminium section and extrusions from automobiles, and discarded domestic aluminium products.

The copper scrap consists of pure waste copper such as electrical grade and copper alloys scrap (bronze and brass). The copper and copper-based alloys are used in the manufacture of copper oxy-chloride which is a fungicide in coffee and horticultural farming, copper lighting arrestors, household electrical fittings, copper nuts and bolts, bronze brushes, brass and gas burners. The country has a combined capacity to process 1,070 tonnes per year of copper and copper-based alloys. Kenya Power and Lighting also is a major generator of copper scrap, as is the Kenya Posts and Communication Corporation.

The main source of lead scrap is battery lead that has been used in the automotive industry. It is added in the manufacture of motor-vehicle batteries. The capacity of lead scrap processing facilities is between 3,500-4,000 tonnes per year.

There are two types of zinc scrap found in Kenya, zinc ash and zinc dross. However, there is no technology in the country to re-process zinc ash and therefore the zinc waste is exported. The zinc dross is supplied to the local zinc oxide manufacturers and galvanizing plants. Magnesium based scrap occurs in the form of engine blocks and parts of machinery and equipment. Since there is no enterprise in the country using this type of scrap, all of it is exported.

Constraints and prospects

Development of the non-ferrous metals sector clearly lags that of the ferrous metals sector. Where the technology exists to weld almost any form of iron and steel, non-ferrous welding is almost non-existent. There is also no existing technology for chromium welding. The future development of the sector is dependent upon the acquisition of these and other metals technologies, as well the training of personnel.

COPPER AND GOLD MINING

Production of copper concentrates from mined ore began in Kenya in 1951 at the Macalder Mine in the south of the Nyanza District. By 1966, this mine was nearly exhausted after producing 20,000 long tonnes. A small amount of production continues to be made by circulating water from the flooded mine over iron scrap to recover copper leached out from the abandoned stopes.

Outside the Nyanza and Western Provinces, several further copper deposits are found as disseminations in regionally metamorphosed rocks of the Basement Complex. As noted above, several scattered indications of copper also have been recorded in Northern and Central Kenya,

the copper mineral occurring either as disseminations in gneisses and migmatites, or as small segregations in basic igneous rocks. All are present in currently uneconomic quantities.

Outside those occurrences recorded from the Nyanzian and Basement System, the only other copper mineralization known in Kenya is at Vitengeni approximately 48 miles north of Mombasa where chalcopyrite is found in subsidiary amounts with galena and zinc-blend in quartz-baryte veins within thin-bedded sandstones and mudstones of the Duruma formation of the Triassic age.

Table III.39. Production of copper, 1957-1962

Year	Long tons	Value (KSh)	Year	Long tons	Value (KSh)
1956	859	188,980	1963	2,212	504,652
1957	1,679	344,020	1964	2,044	654,662
1958	1,988	383,684	1965	1,938	868,281
1959	1,982	458,174	1966	780	426,270
1960	1,756	412,660	1967	11	5,500
1961	2,524	583,043	1968	37	14,654
1962	2,191	505,033	1969	76	40,444

Source: Republic of Kenya, Ministry of Environment and Natural Resources.

Reports are conflicting concerning the date when gold was first discovered in Kenya, 1892 or 1902. But whichever date might be correct, it is certain that between 1922 and 1923 there was a minor gold rush to the country lying south and south-east of Kisii which led to the discovery of several payable reefs. In 1931, Kakamega goldfield was discovered and a rapid expansion of the industry ensued from 1932 onwards. By 1939, there were 53 gold processing mills in the country. The other major goldfield in the country was the South Nyanza goldfield which included the Migori Gold Belt, the Masara Mine and the Macalder Nyanza Mine. Minor occurrences of gold are known at several localities in Kenya such as Cherengani Hills, West Polot, Kitui, Machakos and near Lokitaung in Northern Turkana.

Table III.40. Gold production, 1926-1969

Year/period	Troy ounces	Value in KSh
1926-1930	4,669	18,060
1931-1935	73,226	368,183
1936-1940	385,768	2,405,710
1941-1945	252,813	2,150,145
1946-1950	118,298	1,135,459
1951-1955	55,713	701,389
1956-1960	46,773	584,415
1961-1965	56,312	718,174
1966	11,989	149,490
1967	33,366	420,118
1968	31,989	448,009
1969	17,903	273,821

Source: Republic of Kenya, Ministry of Environment and Natural Resources.

Note: Quantities were measured as unrefined ounces up to 1939 and as refined ounces for later years.

Through 1966, however, 90 per cent of the gold produced in the country was recovered as a by-product. At that time the major mines were closed due to an exhaustion of economically recoverable ore. At present there are only small producers in the goldfields at Nandi and Sigalagala which together account for almost all the remaining gold production.

While mineral production in general has shown a downward trend in production in Kenya in recent years, exports incentives aimed at gold and diamonds led to an increase in the export of those items and diamond jewellery in the 1990s.

Constraints and prospects

The future of gold mining in Kenya is clearly a subject of great interest and economic importance to the economy. The large goldfields of Western Kenya offer the most attractive possibilities for future development and the long-term policy of the government is to revive the gold mining and other mining industries as well as industries relying on mined ores.

By world standards, the greatest depths reached in working the country's mines are not considered sufficient to have exhausted the deposits. Deeper mining involves higher costs and capital resources beyond the reach of most small workers, however, and consequently many small miners were forced out of business when their mining costs approached their profit margin. The future success of these efforts will depend upon the obtaining of new technology.

K. MACHINERY, TRANSPORT EQUIPMENT AND CAPITAL GOODS

MACHINE TOOLS

The resource base

The major resource available in Kenya for the development of a machine tools industry is trained middle-level manpower and innovative entrepreneurs in the small enterprise sector. The development of this subsectors in Kenya has been mainly done by the private sector. The Kenyan government has involved international organizations to undertake studies for establishing such capital goods industries, but these efforts have not yielded positive results.

Past trends

In various policy documents, the Government of Kenya has emphasized the need to develop a local machine tool industry since the sector would form the foundation for the development of other industries. Its strategic significance to the country is the multiplier effect it has on both upstream and downstream industries. Despite these desires, the only major firm which is involved in manufacture of machine tools is East Africa Foundry Works Ltd. The enterprise began operations 1986 with the manufacture of metal cutting machinery and now specializes in the production of machines such as posho mills, maize grinders, rice millers, gears, shafts, hanimer mills, tea-driers and sugar cane crushers. The firm also manufactures spare parts.

The most modern of the Kenyan machine tool enterprises is the Numerical Machining Complex at the Kenya Railways which has the latest manufacturing and design hardware. There are also many small firms specializing in making spare parts and some complete machinery for the coffee, tea, sugar and transport industries. Some wood-working machines also are manufactured locally in the *jua kali* sector.

Constraints and prospects

Data on the industrial capital equipment in the country has yet to be compiled. Most capital goods are imported and hence there is proliferation of all types of equipment. Without

information on the technology, so as to know type of spare parts required by various firms, the further development of the machine tool and spare parts industry is made more difficult.

Kenya also faces competition and a reduced market potential from its neighbouring countries of Ethiopia and the United Republic of Tanzania which have established machine tool manufacturing industries. The success of any expansion of the sector will rely to some degree on Kenya finding its comparative advantages within the subsector.

MOTOR VEHICLE AND AUTOMOTIVE COMPONENTS

The resource base

While the transport industry includes all enterprises involved in the manufacture and assembly of transport equipment used in various modes of transport such as road, rail, air, pipeline and water, including spare parts and components for servicing, in Kenya, only the assembly of motor vehicles and related parts is well-developed. The capital investment required for the development of the other subsectors has hampered their establishment.

The major resource available to the motor vehicle and automotive components sector is cheap labour, ranging from highly-trained personnel to unskilled workers. Other inputs are imported either as finished components or intermediate inputs requiring further processing before use.

Past trends

The motor-vehicle industry in Kenya is divided into four areas; motor vehicle assembly, the auto ancillary sector, franchise holders and the informal motor vehicle sector. Motor vehicle assembly was initially established to assemble commercial vehicles only. However, due to under utilization of capacity, passenger vehicles were included in 1985. There are currently three motor vehicle assemblers in Kenya; Kenya Vehicle Manufactures Ltd (KVM), Associated Vehicle Assemblers (AVA) and General Motors Ltd (GM).

With the exception of General Motors which assembles its own vehicles, all motor vehicle assembly is done under contract. Contracts are awarded by franchise holders such as Toyota (Kenya); D.T. Dobie Ltd and Marchalls East Africa; which have the franchise rights to import completely knocked down (CKD) kits which are delivered to the assemblers for an agreed fee. The finished vehicles are then handed over to the franchise holders for distribution and marketing. Franchise holders also import completely built up (CBU) units.

Table III.41. Motor vehicle assembly, 1990-1994

Type	Unit	1990	1991	1992	1993	1994
Assembled vehicles	Number	14,056	7,750	8,506	6,862	7,076
Coaches and buses	Number	228	274	191	177	400
Lorry bodies	Number	363	315	310	310	428

Source: Republic of Kenya, Central Bureau of Statistics.

There are over 80 small- and medium-scale auto ancillary enterprises manufacturing and reconditioning motor vehicle spare parts. The informal motor vehicles sector is composed of importers of reconditioned or new vehicles, and *jua kali* garages.

The total capacities of the three motor vehicle assemblers is 22,300 units per annum on a one-shift basis. AVA has a capacity of 12,000 units per annum, GM has a capacity of 4,500 units per annum, and KVA has a capacity of 5,800 units per annum. With the liberalization of trade, most auto-ancillary enterprises are running much below their full capacity levels since franchise holders can now import 100 per cent CKD.

Fig. III.J. Production of assembled vehicles, 1990 and 1994
(Thousands)

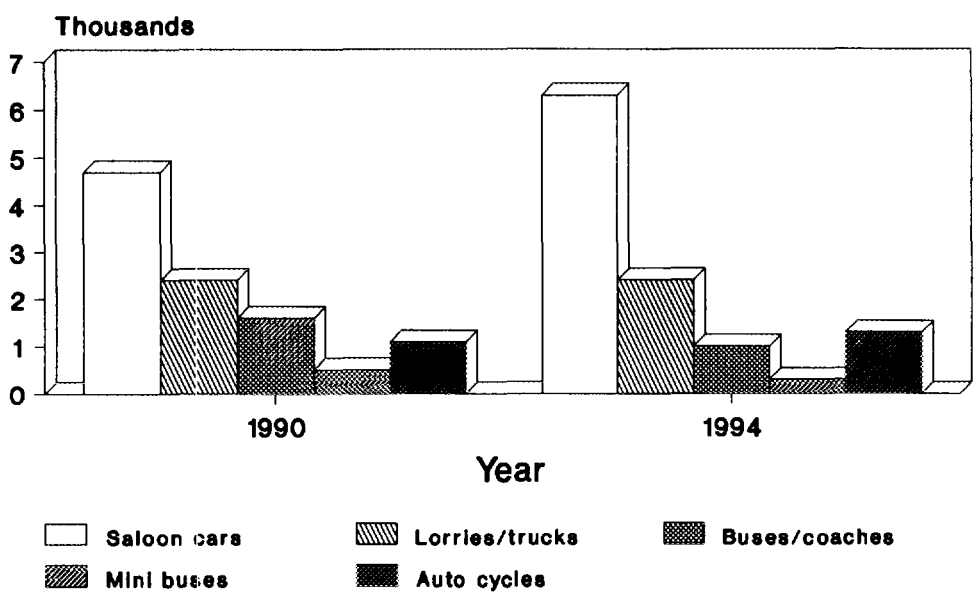


Table III.42. New registration of road vehicles, 1990-1994

Type of vehicle	1990	1991	1992	1993	1994[a/]
Saloon cars	4,703	4,124	4,247	4,542	6,309
Station wagons	2,452	2,558	2,081	1,828	2,428
Panel vans, pick-ups, etc	4,996	3,943	3,728	2,510	2,840
Lorries/trucks	1,611	1,272	1,105	750	1,091
Buses and coaches	914	762	718	519	319
Mini buses	525	394	447	295	347
Special purpose vehicles	35	39	37	20	14
Trailers	149	423	299	291	439
Rollers, graders, cranes	42	49	68	55	39
Wheeled tractors	1,127	700	687	474	430
Crawler tractors	10	6	1	2	8
Motor and auto cycles	1,188	1,246	1,364	1,133	1,348
Three wheelers	1	-	2	1	1
All vehicles	**18,023**	**15,516**	**14,784**	**12,420**	**15,613**

Source: Republic of Kenya, Central Statistical Bureau.

a/ Provisional.

The registration of new vehicles in the country is the indicator of the volume of the motor-vehicle market. Between 1990 and 1993, there was decline in new registration. However, in 1994 there was an increase mainly as a result of increase in importation of new and reconditioned saloon vehicles and station wagons.

Constraints and prospects

Automotive assembly will remain subject to the effects of rises and falls in domestic demand due to economic downturn. These variations will be year-to-year. The longer-term outlook for the sector will depend on how the generally rising demand for commercial and personal vehicles will be met given trade liberalization. Will local production be expanded? Or will imports of fully assembled vehicles meet the full increase in future demand.

The outlook for ancillary spare parts enterprises is not so bright. With the new ability of assemblers to import spare parts, these enterprises will face stiff competition and many may be forced out of business.

ELECTRONICS AND ELECTRICAL APPLIANCES

The resource base

Kenya has abundant qualified engineers, technicians and skilled personnel required for entry level positions in the electronics subsector. However, employment opportunities in the areas of electronics remains limited. Almost all other inputs are imported.

Past trends

The electronics industry in Kenya was first established in 1968 by the company known as Sanyo ARMCO which was a joint venture between Sanyo of Japan and local private as well as Government of Kenya interests. Phillips (Netherlands) was established in 1973 followed by two locally-owned companies in 1974. In 1982, there were seven firms assembling electronic products such as radios, televisions and stereos.

In the initial stages of development, the industry was protected by tariffs, and the firms involved flourished. From mid-1980s, however, there was influx of imported radios from South East Asia which led to a decline in the radio assemblies locally. Since 1992, the assembly of both radios and television sets have dropped sharply, although there are still 13 firms which assemble radios, television sets, video recorders, public address equipment and electronic watches imported as both semi-knocked down and CKD kits.

The assembly of computers and telecommunications equipment began in Kenya in 1987 and 1986 respectively. Kenya Micro Computer (KMC) has a licensing agreement with the United States company Harvard Computers to assembly their brand from semi-knocked down kits. There are also over 50 small enterprises dealing with computers and allied equipment, software packages and industrial computer control equipment.

Telecommunications equipment is manufactured at Gilgil Manufacturing Complex which is a production unit within Kenya Posts and Telecommunications Corporation (KPTC). The products manufactured are manual and semi-manual switch-boards, cable forms, telephone instruments, secretarial telephone system, single and multi-channel radios, private automatic branch exchanges (PABX) and MDF metal frames.

There are also other firms which manufacture electric and electronics components. The items manufactured are switch gear, regulated power supplies, relays, AC/DC convertors, RF fillers and telecommunication power supplies. There are two firms manufacturing instrumentation and industrial electronics.

The largest market for electrical and electronic industries is domestic. Exports are primarily to the countries within COMESA. The main export goods are posts and telecommunication electronics. Kenya is a large net importer of electronics goods, with imports increasing from KSh6,783 million in 1990, to KSh7,118 million in 1993, while exports increased from KSh90 million to KSh299 million during the same period.

Table III.43. Production of electrical machinery, apparatus and appliances, 1990-1994

Items	Unit	1990	1991	1992	1993	1994
Dry cell	Number	160,092	158,267	129,565	99,967	101,269
Assembled radios	Number	22,600	28,026	28,240	..	..
Motor vehicle batteries	Number	177,537	187,860	169,972	169,982	126,877
Electrical lamps	Number	5,035	5,745	3,774	3,694	5,906
Television sets	Number	3,693	2,940	1,112	..	..
Radio cassettes	Number	36,304	33,447	29,491	..	..

Source: Republic of Kenya, Central Bureau of Statistics.

Constraints and prospects

The development of the electronic industry globally has been so fast that only a dynamic policy will help the local Kenyan industry keep pace with global technological changes. The recent change of the industrialization strategy in Kenya towards a market-based economy and private sector growth, should provide the enabling environment for the growth of the sector by improving physical and social infrastructure including the control mechanism on imported goods, the tariff structure and activities for research and development, and improvement of statistical data on the electronics industry.

NOTES TO CHAPTER III

1/ Kenya Meat Commission is slated to be privatized but the method of privatization has not yet been determined. Republic of Kenya, Ministry of Finance, *Policy Paper on Public Enterprise Reform and Privatisation*, October 1994.

2/ Republic of Kenya, *Development Plan 1994-1996.*

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