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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

**INDUSTRIAL DEVELOPMENT REVIEW
SERIES**

KENYA

**Sustaining industrial growth
through restructuring and integration**

Prepared by the
Regional and Country Studies Branch

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PREFACE

This Industrial Development Review is one of a series of country studies prepared by the Regional and Country Studies Branch of the United Nations Industrial Development Organization (UNIDO).

The Reviews present brief factual and analytical surveys of industrial development in developing countries. Such industry-specific Reviews are in demand for a variety of purposes: to provide an information service to relevant sections within UNIDO and other international organizations and aid agencies concerned with technical assistance to industry; to be used as a reference source for financial organizations, public and private industrial enterprises, and economic research institutes in developed and developing countries; and to serve as a handy, useful information source for policy-makers in developing countries. The Reviews do not represent in-depth industrial surveys. With an exclusive focus on industry they present information and analyses on the broad spectrum of the industrial development process in the countries concerned in a condensed form.

The Reviews draw primarily on information and material available at UNIDO headquarters from national and international sources as well as data contained in the UNIDO data base. Generally, specific field surveys are not undertaken. The presentation of up-to-date information on sub-sectoral manufacturing trends is usually constrained by incomplete national data on the industrial sector. To supplement efforts under way in UNIDO to improve the data base and to monitor industrial progress and changes on a regular basis, it is hoped that the relevant national authorities and institutions and other readers will provide comments and further information. Such response will greatly assist in updating the Reviews.

The present Review was prepared on the basis of information available at UNIDO headquarters by early-1988. It is divided into two rather distinct parts. Chapters 1 and 2 are analytical in character, giving first a brief overview of the country's economy and its manufacturing sector and then a more detailed review of the structure and development of its manufacturing industries. Chapter 3 analyses the problems and prospects of selected sub-sectors of manufacturing. Chapter 4 reviews policy measures relevant to industrial development, with a focus on instruments of industrial policy and technical co-operation needs and priorities.

It should be noted that the Reviews are not official statements of intention or policy by governments nor do the views and comments contained therein necessarily reflect those of the respective governments.

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EXPLANATORY NOTES

Regional classifications, industrial classifications, trade classifications, and symbols used in the statistical tables of this report, unless otherwise indicated, follow those adopted in the United Nations Statistical Yearbook.

Dates divided by a slash (1986/87) indicate a crop year or a financial year. Dates divided by a hyphen (1986-1987) indicate the full period, including the beginning and end years.

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

Totals may not add precisely due to roundings.

In Tables:

Three dots (...) indicate that data are not available or not separately reported;

Two dashes (—) indicate that the amount is nil or negligible;

A hyphen (-) indicates that the item is not applicable.

Basic indicators and graphical illustrations of manufacturing trends contained in this Review are based on data sourced from the UNIDO data base, international organizations, commercial and national sources.

The following abbreviations are used in this document:

DFCK	Development Finance Company of Kenya
EAC	East African Community
GDP	Gross domestic product
GNP	Gross national product
ICO	International Coffee Organization
IDB	Industrial Development Bank
IMF	International Monetary Fund
IPC	Investment Promotion Centre
ISIC	International Standard Industrial Classification
KAM	Kenya Association of Manufacturers
KIE	Kenya Industrial Estate
KIRDI	Kenya Industrial Research and Development Institute
KSh	Kenyan shilling
KPCU	Kenya Planters' Co-operative Union
KUSCO	Kenya United Steel Company
MVA	Manufacturing value added
PTA	Preferential Trading Agreement
SITC	Standard International Trade Classification
UNCTAD	United Nations Conference on Trade and Development

BASIC INDICATORS 1

The economy

GNP (1985)	:	\$5,000 million						
Population (1986)	:	21.2 million						
Annual average growth rate	:	4.1 per cent						
Total labour force (1983)	:	7,033 thousand						
GNP per capita (1985)	:	\$290						
Annual real growth rate of GDP (per cent)	:	<u>1963-1973</u>	<u>1977-1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
		6.2	5.6	4.8	4.1	1.8	2.1	0.9
		<u>1985</u>	<u>1986</u>	<u>1987^{a/}</u>				
		4.4	5.7	4.9				
GDP by sector of origin (percentage)	:			<u>1982</u>		<u>1986</u>		
		Primary sector ^{b/}		28.4		27.6		
		Secondary sector ^{c/}		17.8		18.0		
		Manufacturing		10.9		11.6		
		Services		53.8		54.4		
Annual average rate of inflation	:	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
		11.8	20.5	11.5	10.1	13.1	4.0	5.2
Exchange rate (KSh equivalents to \$1)	:	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	
		7.569	10.286	12.725	13.796	15.781	16.284	
		<u>1986</u>	<u>1987</u>	<u>1988 (March)</u>				
		16.042	16.515	17.027				

a/ Estimate.

b/ Consists of agriculture, forestry, fishing, mining and quarrying.

c/ Consists of manufacturing, construction and utilities.

BASIC INDICATORS 2

Resources

Principal cash crops ('000 tons, 1984)	: Coffee (95), tea (115), sugar cane (3,910)
Food ('000 tons, 1984)	: Total cereals (1,724), root crops (1,446), oil crops (32), meat (330)
Livestock ('000, 1984)	: Cattle (12,000), sheep (6,700), goats (8,300), pigs (100)
Fishery ('000 tons, 1983)	: Freshwater (91), marine fish (6)
Forestry ('000 tons, 1983)	: Fuelwood and charcoal (27,877), industrial roundwood (1,453), sawnwood and panels (204)
Minerals ('000 tons, 1985)	: Soda ash (228), fluorspar (64), salt (34.4)

BASIC INDICATORS 3

Foreign trade and balance of payments

Exports

Total value (1986)	:	\$1199.6
Main goods	:	Coffee, tea, petroleum products, pineapples, cement
Main destinations (1986) (per cent)	:	United Kingdom (16.3), Federal Republic of Germany (13.7), United States (10.1), Uganda (7.4), Netherlands (6.6), Pakistan (5.7)

Imports

Total value (1986)	:	\$1613.2
Main goods	:	Industrial machinery, crude oil, petroleum products, commercial road vehicles, iron and steel products
Main origins (1986) (per cent)	:	United Kingdom (15.0), France (12.4), Japan (10.4), Federal Republic of Germany (9.9), United States (4.2), Italy (4.0) Singapore (3.3)

Balance of payments (current account deficit, \$ million)	:	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
		560.2	304.7	48.1	126.3	98.4	102.2
		<u>1987^{a/}</u>					
		200					

Foreign exchange holdings (March 1988)	:	\$240.9 million
Total external debt (1988)	:	\$4.2 billion
Debt service (1987-1989)	:	\$400 million per annum
Debt service ratio (1987)	:	35 per cent

a/ Estimate.

BASIC INDICATORS 4

The manufacturing sector

Manufacturing value added (1986 at 1980 prices)	:	\$869.5 million				
<u>MVA per capita</u>	:	\$41				
Employment in manufacturing (1986)	:	128,700				
as percentage of total labour force	:	1.7 per cent ^{a/}				
Structure of MVA	:		<u>1977</u>	<u>1986</u>		
		Consumer goods	34.1	50.9		
		Intermediate goods	28.6	31.4		
		Capital goods	17.3	17.7		
Annual real growth rate of MVA (per cent)	:	<u>1963-1973</u>	<u>1977-1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
		9.1	8.7	5.3	3.6	2.2
		<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	
		4.5	4.1	4.6	5.3	
Share of manufacture ^{b/}						
- in total exports	:	11.2 per cent				
- in total imports	:	45.2 per cent				

a/ Estimate.

b/ SITC 5 to 8 less (67 and 68).

BASIC INDICATORS 5

Inter-country comparison of selected indicators

	Unit	<u>Kenya</u>	Egypt	Nigeria	Tanzania	Uganda	Zimbabwe
I. <u>DEMOGRAPHIC INDICATORS</u>^{a/}							
Area	'000 sq. km.	583	1,001	924	945	236	391
Population (mid-1985)	millions	20.4	48.5	99.7	22.2	14.7	8.4
Population growth (1980-85) (average annual growth rate)	per cent	4.1	2.8	3.3	3.5	3.0	3.7
Primary school enrollment as percentage of age groups (1984)	per cent male/female	101/94	94/72	103/81	91/84	65/49	135/127
II. <u>ECONOMIC INDICATORS</u>^{a/}							
GDP (1985)	\$ million	5,020	30,550	75,300	5,600	...	4,530
GDP growth rate (1980-85) (average annual growth rate)	per cent	3.1	5.2	-3.4	0.8	4.9	2.5
GDP per capita (1985)	\$	290	610	800	290	...	680
Agriculture (1985)	per cent of GDP	31	20	36	38	...	13
Industry (1985)	per cent of GDP	20	31	32	8	...	43
Manufacturing (1985)	per cent of GDP	13	...	9	5	...	29
Services (1985)	per cent of GDP	49	49	32	33	...	44
Gross domestic investment (1985)	per cent of GDP	-8.9	0.7	-18.0	-3.4	...	-2.4
Merchandise trade							
Exports (1985)	\$ million	976	4,150	12,567	255	332	1,061
Imports (1985)	\$ million	1,436	11,200	8,877	1,017	380	854
III. <u>Industrial indicators</u>							
MVA (1984) (at 1980 prices)	\$ million	919	...	8,039	407	120	1,259
MVA per capita (1984)	\$	45.0	...	80.6	18.3	8.2	149.9
Share of manufactured exports ^{b/} in total exports (1985)	per cent	11.2 ^{c/}	10.0	10.3 ^{d/}	10.58 ^{e/}	0.39 ^{f/}	9.57 ^{h/}
Share of manufactured imports ^{b/} in total imports (1985) rate estimated	per cent	45.2 ^{c/}	52.1	71.7 ^{d/}	57.8 ^{e/}	58.7 ^{f/}	64.3 ^{h/}

a/ Based on the World Bank data presented in the World Development Report 1987. It should be noted that the UNIDO data base, United Nations statistics, national statistics and World Bank data base do not always tally precisely and, therefore, discrepancies may be found between Basic Indicators 5, and the text and Tables.

b/ SITC 5 to 8 less (67 and 68).

c/ 1983.

d/ 1979.

e/ 1981.

f/ 1976.

g/ 1980.

h/ 1982.

SUMMARY

The year 1988 is marked by cautious and relatively low-key optimism about the prospects for a healthy pace of economic growth. Sustained pace of economic growth remains constrained due largely to the depressed world prices of coffee and tea, Kenya's principal exports. Real GDP recorded a 5.7 per cent increase in 1986, up from 4.4 per cent and a sluggish growth rate of 0.9 per cent in 1984. Faltering growth rates of 4.9 per cent and 3.8 per cent are estimated for 1987 and 1988 respectively. A 3.8 per cent growth rate will fail to keep pace with the country's population growth, implying that per capita income will remain stagnant in 1988 after having risen to an average of about 2 per cent during 1985 and 1986.

In the wake of a deteriorating balance of payment situation Kenya began negotiating with the IMF in mid-1987 and reached an agreement in February 1988 on an assistance totalling \$180 million. The IMF has applied its usual recipe for reforms - lifting of price controls, tight credit ceiling and a reduction in the budgetary deficit.

The 1987/88 budget has been moderately expansionary, with an 8 per cent increase in fiscal expenditure. Around one fourth of government expenditure is expected to be financed through borrowings and grants. The government endeavours to reduce the fiscal deficit from KSh 298 in 1986/87 to KSh 200 million in 1987/88. Public sector investment has stagnated, and a 12 per cent average annual increase in gross fixed capital formation during 1985-1987 has been sustained almost entirely by the private sector.

Kenya's diversified manufacturing sector is known for its bias towards the domestic market, its reliance on imported inputs, and its capital-intensive nature. Major industries in terms of production value and employment generation are food production, petroleum industry, metal industry and automobile industry. The pace of industrial growth has slackened considerably in recent years. The principal cause of such a decline has been the rapid decline in domestic demand which stood as the main source of growth of Kenyan manufacturing during the 1960s and 1970s.

Declining growth rate has also been a consequence of difficulties experienced within the manufacturing sector itself. Very little structural change has taken place reflecting existing high level of industrial concentration and significant barriers to entry within the manufacturing sector. Small- and medium-sized modern firms are almost non-existent in the key industrial branches - engineering, chemicals, and even textiles. Moreover, the significant decline in investment levels - from both domestic and foreign sources - has meant that industrial restructuring is a particularly difficult task at the present juncture.

Declining investment levels have reflected very low rates of return. This is due primarily to falling capital productivity and high material and transport costs. Real wage rates have declined dramatically in the past two decades leading to a significant fall in domestic demand. This decline in real wages has not been accompanied by an increased substitution of labour for capital in the production process. Employment elasticities over the period 1975-1984 were below unity for 13 of the 24 branches for which data was available. The very rapid growth of population requires that industrial employment should expand if serious economic imbalances are to be avoided in the medium run.

Prospects for individual sub-sectors of manufacturing depict mixed trends. Prospects for coffee and tea processing are overshadowed by market uncertainties. Sugar consumption has been increasing steadily as against fluctuating production trends. The high cost and unreliable supply of local raw materials and poor quality control affect the performance of the textile industry. There is a need for rapid technological improvement, with a view to sharpening the competitive edge of the textile industry to cease opportunities stemming from the assured expansion of domestic demand for textile products. A centrally organized purchasing agency is deemed vital for the growth and progress of Kenya's chemical and allied industries. The country's leather industry represents a promising product area where local resources, foreign technology, expertise and finance could be effectively combined for fostering the process of industrialization. The sustained boom in the Kenyan tourist industry may lead to an increase in domestic demand for cement. However, the cement industry needs a comprehensive government support package. Expansion of Kenya's metal industry requires technological upgrading, while the electronics enclaves cite a strong case for protection against imports of finished products. The motor assembly industry in Kenya suffers from uneconomical proliferation of makes and models. Further expansion for the motor assembly industry is to be carefully studied and evaluated.

Manufactured exports performance has not come up to expectations despite the adoption of a flexible exchange rate policy and a correction of the anti-export bias in the protection structure. Most manufactured exports are directed to neighbouring countries and a rapid expansion of these exports requires successful economic integration within the Preferential Trading Agreement (PTA) area. Unfortunately in this respect progress has been slow and can be speeded up only if trade expansion is seen as a consequence of stable institutional arrangements leading to a harmonization of macro-economic policies and a co-ordination of investment plans at the sub-sectoral levels (metal products, non-electrical machinery, chemical feedstock, textiles, perhaps fertilizers). Scope also exists for increasing trade in manufactures with countries such as Egypt, India, Pakistan and Syria. It has been suggested that Kenyan firms may be encouraged to develop institutional links with Indian firms and could explore the possibility of arrangements - including countertrade deals - involving the procurement of Indian technology for Kenyan manufactured exports.

The government has been committed to a programme of economic liberalization throughout most of the 1980s. The 1986 Sessional Paper has placed particular emphasis on the development of the micro-enterprise sector as the key positive element within the liberalization programme. This sector is seen as the major generator of employment opportunities and the source for the transmission of technical knowledge to potential Kenyan entrepreneurs. State regulation of these micro-enterprises has been significantly reduced.

Kenya has developed a long and stable relationship with multilateral agencies and during 1987 and 1988 several such agencies showed keen interest in assessing the potential for renewed industrial expansion in Kenya. There is considerable scope for the expansion of multilateral technical assistance to the Kenyan manufacturing sector.

Resources could be provided for fully exploiting Kenya's existing technological and human resources (which are considerable by African standards) and for strengthening this resource base. There is a special need to focus attention on the development of organizational and subcontracting links and integration between large-scale and small-scale enterprises. The establishment of such links is a pre-requisite for the nation-wide diffusion of technological skills. State institutional support for the development of such linkages would need to be provided since they will not evolve naturally in response to the liberalization and control dismantling industrial strategy currently being favoured.

Industrial restructuring will be feasible only if substantial levels of new investments are made within the manufacturing sector. Existing capital equipment is old and obsolescent and capital productivity is very low. New investment is needed also in order to reduce the capital-intensity of manufacturing production processes - permitting the import of more appropriate production technology. Public, domestic, private, and transnational investments and international bank-loans have declined significantly during the 1980s. Multilateral agencies could take an initiative in facilitating the negotiation of new packages - including e.g. debt-equity swaps - for revitalizing investment growth in Kenyan manufacturing.

Support may also be provided to accelerate the growth of manufactured exports. This eventually requires the establishment of viable regional institutional arrangements for policy harmonization and for developing regional investment linkages and gradually evolving a regional export policy. Multilateral support to the PTA institutions involved in the integration of national industrial policies could be directed towards harmonizing regional policies. Support for "counter trade" deals can also be useful.

Kenya needs a flexible industrial policy. The role of the government cannot be limited to the dismantling of control. It could pursue an active differentiated industrial policy fostering key branches and enterprises, delivering essential services redressing the costs of unbalanced growth and monitoring compliance of enterprises with the objectives of its strategy. This requires an expansion of the administrative, managerial and accounting capacities of industrial policy-making institutions which are aiming at sustaining industrial growth through restructuring and integration.

1. THE ECONOMY OF KENYA

1.1 Recent economic trends

The momentum gained in economic recovery in 1986 could not be sustained as the economy of Kenya plunged into faltering rates of growth in recent years. Adverse international economic conditions, particularly the uncertainties centred on the world prices of Kenya's principal exports, coffee and tea,^{1/} are likely to severely affect Kenya's growth prospects during 1988. The balance of payments situation is also unlikely to improve significantly as the relative price of oil imports will probably rise and domestic fiscal stimulation will increase import demand. Favourable weather conditions and important successes achieved with respect to the government's informal sector development programme are likely to stimulate growth within the productive sectors of the economy. However, an economic downturn is predicted for 1988, with GDP growth faltering below 3.8 per cent. A healthy pace of economic growth is overshadowed by unfavourable external factors. This implies that per capita income growth will remain stagnant during 1988 after having risen at an average of about 2 per cent during 1985 and 1986.

The Kenyan economy experienced an impressive growth rate of 5.7 per cent in 1986, up from 4.4 per cent in 1985 and a sluggish growth rate of 0.9 per cent in 1984, when drought decelerated growth. The higher growth rate in 1986 was attributed to a number of factors. The price of coffee rose above the ceiling price, the oil price had dropped, tourism was looking buoyant and tea was performing reliably. In 1987 the economy of Kenya suffered from a halving of its coffee export revenues, costlier oil imports and poor rains. Growth of GDP in real terms was estimated at 4.9 per cent for 1987, only just ahead of population growth rate of 4.1 per cent.^{2/}

The slowing down of growth has been accompanied by accentuated inflationary pressure. The government's Economic Survey of 1986^{3/} estimated that money supply grew by 33 per cent during that year. Government borrowing from commercial banks rose by 56 per cent. It is estimated that the inflation rate will once again reach a double-digit level during 1988^{4/} and the pressure on both the fiscal and the current account deficit is likely to increase.

1/ International prices of coffee, which remained depressed throughout 1987, have not responded markedly to the restoration of quotas under an agreement with the International Coffee Organization (ICO) in October 1987. While the terms of the ICO scheme limits the global exports to 58 million bags (of 60 kg) for 1987/88 (October-September), Kenya secured a marginal increase in its quota from 2.46 per cent to 2.49 per cent of global exports. The degree of responsiveness of international coffee prices to a reduction in global quota from 58 million bags to 56.5 million bags in early 1988 seems to be meagre. International prices of tea reached its five-year low of \$1.24/kg in mid-June 1987 and rose to \$1.94/kg in November 1987. Leading tea producers, India and Sri Lanka, are trying to revive prices by means of a global quota agreement along the lines of ICO scheme for coffee.

2/ The Kenyan population is expected to continue to grow at an average of 4 per cent during 1985-2000. See World Bank, World Development Report, 1987, Technical Table 27, p. 254.

3/ Published in June 1987.

4/ After experiencing double-digit inflation rate in the first half of the 1980s, the rise of consumer prices subsided to 4.0 per cent and 5.2 per cent in 1986 and 1987 respectively.

The 1987/88 budget has been moderately expansionary. The estimated fiscal expenditure is expected to reach KSh 2,217 million (8 per cent higher than 1986/87). Recurrent revenue is to increase by 9.5 per cent. It is argued that the decision to cut income tax will lead to an expansion in tax revenues (due to an anticipated decline in tax evasion and a positive "incentive" effect). Revenue from import duties are also expected to increase as pent-up import demand finds a vent in response to lowered import duties and surcharges. Grants and borrowings are expected to finance 23.6 per cent of government expenditure - this is marginally lower than the ratio of actual grants and borrowings to total expenditure during 1986/87. The fiscal deficit is expected to fall from KSh 298 million in 1986/87 to KSh 200 million in 1987/88. The share of domestic borrowing as a source of financing this deficit is expected to increase from 70 per cent during 1986/87 to 74.2 per cent in the current fiscal year. While external borrowings are expected to fall from KSh 87 million to KSh 67 million, grants may rise by almost 30 per cent (from KSh 187 million to KSh 241 million) over this period.

Expansion of government borrowings from commercial banks comes at a time of increased financial stress. During 1986/87 a number of important Kenyan banks - Timba Credit Cooperation, and Continental Bank of Credit - were forced to suspend operations and could resume business only after leading creditors had agreed to convert debt into equity or maintain deposits for a two-year period. Special measures were announced in the 1986/87 Budget to tighten legislative control over the building societies and the Central Bank increased surveillance over all commercial and financial institutions. In the 1987/88 budget speech, it was announced that the special Investment Committee appointed by the President in September 1986 had placed all commercial institutions under a restrictive "code of practice". Despite this, in June 1987 the United Trustee Finance Company declared itself unable to meet the claims of its major creditors and government auditors discovered that it had violated several clauses of the Banking Code. The restoration of confidence within the financial system thus remains an urgent necessity.

This is particularly so because since the mid-1980s, public investment has stagnated and the average annual growth of 12 per cent in gross fixed capital formation during 1985-1987 has been sustained almost entirely by the private sector. Uncertainty in the financial sector has represented the most serious constraint on the growth of private sector investment. The government has sought to stimulate foreign private investment by the establishment of a Capital Investment Development Authority in 1988 to encourage foreign participation in Kenyan private companies. USAID has also committed itself to the provision of a loan worth \$24 million for the development of small-scale manufacturing enterprises within the rural sector.

Investment growth is also restrained by scarce foreign exchange. Kenya achieved a balance-of-payments surplus equivalent to 0.5 per cent of its GNP during 1986, mainly due to a buoyant world coffee market. The fall in coffee prices coupled with the import incentives provided by the present budget have led to a disappearance of this surplus. The balance-of-payments deficit for 1987 was estimated at \$200 million. The deterioration of the balance of payments situation has been due to an acceleration in "capital flight" in recent years. International reserves fell from \$413 million in 1986 to \$256 million in 1987.

While foreign exchange reserves cover only two or three months of imports, the debt service ratio currently stands at about 35 per cent of export earnings. Kenya has also been a major recipient of concessional

finance in Africa. Kenya's stand-by facility of \$85.2 million provided by the IMF expired in February 1986 and was not drawn upon because of the coffee boom. Having survived without the IMF since the beginning of 1986, Kenya began negotiating with the IMF in mid-1987 and reached an agreement in February 1988 on IMF assistance totalling about \$170 million covering the next three years. This amount is to be supplemented by other donors. The negotiations with the World Bank regarding the Structural Adjustment Facility are likely to be more complex. The World Bank terminated its structural adjustment facility to Kenya during 1985. In granting \$170 million to Kenya the IMF has applied its usual recipe for reform, insisting on the lifting of many price controls, tight credit ceiling and a reduction in the budgetary deficit.

There are some indications that bilateral concessional assistance will increase during 1988. Japan has announced an aid package worth \$31 million and the US has signed three agreements totalling \$15.2 million. Concessional bilateral assistance levels are likely to rise if effective utilization aid can be geared towards further diversification of the Kenyan economy.

1.2 Economic structure^{1/}

With a per capita income of about \$290, Kenya is among the low income countries in the world. The size of Kenya's population stood at 21.2 million in 1986. Assuming an average annual population growth rate of 4 per cent, the population is expected to increase to 36 million by the year 2000 and to 131 million in 2030. In the longer term Kenya's high rates of population and unemployment pose the greatest threat to the stability of its economy.

In 1985 Kenyan GDP was estimated at about \$5,000 million - the size of the Kenyan market is thus smaller than that of Egypt, Sudan and Tanzania but larger than that of Somalia, Uganda, Zambia and Chad. The Kenyan economy is, however, one of the most industrialized in East Africa. MVA in 1984 was estimated at \$919 million - as against \$407 million in Tanzania, \$86 million in Somalia, \$729 million in Zambia and \$1,259 million in Zimbabwe.^{2/} The manufacturing sector of Kenya is also more diversified than that of the neighbouring countries of East Africa.

In comparison with these countries, Kenya has had an impressive record of growth over the last two decades. Kenyan GNP per capita has grown at an annual average rate of 2 per cent over the period 1965-1985. During this period average per capita income growth has been negative in Uganda (-2.6 per cent), Zambia (-1.6 per cent), Chad (-2.3 per cent) and Somalia (-0.7 per cent). Zimbabwe, Tanzanian and Sudanese GNP per capita income has remained stagnant during 1965-1985.^{3/} Kenya is thus the most dynamic and thriving national economy of East Africa.

1/ Unless otherwise indicated statistics used for inter-country comparison in this section are from the World Development Report, 1987.

2/ Estimates are not provided for Egypt, Sudan or Uganda.

3/ Recording an annual average growth rate not significantly different from zero.

Growth rates have, however, fluctuated widely. During the period of the so-called "Kenyan miracle" in the mid-1970s real growth averaged 7 per cent per annum. This was followed by a two-year recession. During 1976-1977, growth rates accelerated once again but a prolonged recession with falling GDP per capita set in during 1978-1984. Rising export prices stimulated the economy during 1985-1986 with windfall profit stemming from the coffee bonanza, but, as noted earlier, there has been an economic downturn since 1987.

Despite relatively longer-term rapid growth, structural change has remained limited. The share of agriculture in GDP still stood at 27.6 per cent in 1986 (it was 33 per cent in 1970), and industry accounted for 18 per cent compared to 17.8 per cent in 1982 (Table 1.1). During 1965-1980, small-scale agriculture and import substituting manufacturing registered the highest growth rates. Agricultural growth was accompanied by a rising substitution of cash crops for food crops. The growth within the cash crop sector is largely a function of changes in the world prices of coffee and tea. The economic strategy laid down in the key policy document Sessional Paper No. 1 of 1986 identifies manufacturing as the sector where the highest expansion of both, output and employment, is to be sought. It targets an average annual rate of growth of 7.5 per cent for manufacturing over the period 1985-2000 - agriculture is expected to grow at the rate of about 5 per cent per annum during this period. The Sessional Paper puts strong emphasis on the development of rural industry and expansion of the informal sector. It sees this as the main source of employment growth in the decades ahead. Unemployment is predicted to increase from 13.4 per cent in 1986 to about 20 per cent in 2000. Informal establishments in the urban sector account for only 11 per cent of sectoral employment.

Wage employment has grown at an annual rate of about 3.5 per cent during 1980-1986 - significantly below the rate of population growth and very substantially below the rate of urban migration. The share of the public sector in wage employment has risen from 47 per cent to 50 per cent over this period with particularly strong growth being recorded in the public services sector. Employment in the commodity producing sectors has declined as a proportion of total wage employment and has fallen from 38.3 per cent in 1980 to 36.2 per cent in 1986. These trends indicate that expanding employment will remain a difficult task. Public investment is unlikely to expand rapidly as long as the fiscal deficit remains large and the current economic strategy - as outlined in the Sessional Paper No. 1 as well as in the present Fifth Five-Year Plan (1984-1988) - emphasizes growth in the commodity producing sectors. Such growth is unlikely to accelerate growth in employment unless a more labour-intensive technology of production can be rapidly defined and adopted in the commodity producing sectors.

The economic strategy emphasizes rapid growth of private sector investment. Gross domestic investment as a proportion of GDP increased from 14 per cent in 1965 to 24 per cent in 1981, but this had declined to 18 per cent in 1986. The gross domestic investment to GDP ratio is higher in Kenya than in Somalia, Tanzania, Uganda, or Sudan. The gap between gross domestic investment and gross domestic saving represented 3 per cent of Kenyan GDP in 1985. The corresponding figure was 11 per cent for both Tanzania and Sudan and 9 per cent for Egypt. The gross domestic investment to GDP ratio and that of gross domestic savings in Zimbabwe stood at 23 per cent in 1985.

Table 1.1: Distribution of GDP by sector of origin, 1982-1986
(percentage)

Sector	1982	1983	1984	1985	1986 ^{a/}
Primary sector	28.4	28.9	27.5	27.7	27.6
Agriculture, forestry and fishing	28.2	28.7	27.3	27.4	27.3
Mining and quarrying	0.2	0.2	0.2	0.3	0.3
Secondary sector	17.8	17.7	17.7	17.9	18.0
Manufacturing	10.9	11.1	11.4	11.6	11.6
Construction	5.0	4.6	4.3	4.3	4.4
Utilities	1.9	2.0	2.0	2.0	2.0
Tertiary sector	40.1	40.1	40.8	41.5	41.3
Trade, restaurants and hotels	8.8	8.8	9.1	9.6	9.8
Transport, storage and communications	5.7	5.8	5.7	5.6	5.6
Financial institutions	6.1	6.4	6.6	6.7	6.7
General government	12.9	13.1	13.3	13.5	13.4
GDP at factor cost	86.3	86.7	86.1	87.0	87.0
Indirect taxes less subsidies	13.7	13.3	13.9	13.0	13.0

Sources: Statistical Abstract, 1985; Economic Survey, 1986.

a/ Projection.

Foreign capital inflows have traditionally been an important source of investment in Kenya. Whereas net inflow of direct foreign investments by multinationals has been somewhat limited, the government has obtained both concessional and commercial loans on a short- and long-term basis. Its own development expenditure fell during the early 1980s but has increased by about 75 per cent in money terms over the period 1983/84 to 1986/87. This represents a substantial real increase as inflation averaged about 10 per cent per annum during this period. The growth of domestic private sector investment has been constrained by the "crowding out" effect of the increased domestic borrowing undertaken by the government during 1982-1987 (during which period government borrowing increased from KSh 484.1 million to almost KSh 1 billion) and by the financial instability of the domestic banking sector.

Despite this instability it should be stressed that Kenya possesses the most developed financial sector in East Africa. The Central Bank has extensive powers. There were 30 commercial banks and about 50 non-bank financial institutions in early 1988. Monetization - as measured by the broad money (M1 + M2) to GDP ratio - stood at 39.5 per cent in Kenya in 1985, as against 22.8 per cent in Somalia, 29.0 per cent in Sudan, 33 per cent in

Zambia and 45.2 per cent in Zimbabwe.^{1/} Notes in circulation account for less than 40 per cent of money supply (M1). The Nairobi Stock Exchange with a total capitalization of KSh 850 million is one of the largest in Africa. In 1986 the largest foreign bank^{2/} announced a public issue of shares to sell 30 per cent of its equity to local shareholders. Since 1985 the government has placed some emphasis on achieving an increase in Kenyan ownership participation in foreign manufacturing and financial companies while maintaining the structure of incentives to attract foreign investment to the country.

The liberal economic orientation of successive regimes has ensured that Kenya remains one of the most open economies in Sub-Saharan Africa. The trade/GNP ratio stood at 57.6 per cent in 1985. The export/GDP ratio for Kenya in 1985 was 25 per cent. The value of this ratio was 7 per cent for Somalia and Tanzania, 10 per cent for Sudan, 39 per cent for Zambia and 26 per cent for Zimbabwe in 1985.^{3/} In 1965, the Kenyan export GDP ratio had been as high as 31 per cent. Coffee and tea exports account for over 50 per cent of Kenya's total foreign exchange, earnings and hence export revenue growth is largely determined by changes in the world prices for coffee and tea. The other major export revenue earner is petroleum products. Other manufactures account for a relatively small proportion of total Kenyan export receipts.

Despite an average annual growth in export earnings of about 15 per cent over the period 1981-1986, the trade deficit has remained around KSh 350 million per annum. In 1980, the deficit had touched an all time high level of KSh 450 million. The IMF's insistence on import restraint had some effect in the first two years of the present decade but the coffee boom of 1986 and the expansionary budget of 1987/88. Substantial reductions in import duties are likely to have significantly stimulated import growth. Despite periodic gains from short-term increases in the prices of coffee and tea, Kenyan terms of trade have generally moved adversely. The terms of trade index in 1985 stood at 94 in comparison to a value of 100 in 1980. However, over the 1980-1985 period, terms of trade had declined by a larger percentage for Somalia, Tanzania, Zambia and Sudan. Kenya intends to stimulate the growth of manufacturing exports in order to escape the perennial slump in world commodity markets but success in this would depend crucially upon Kenyan ability to diversify export markets.

The European Community (EC) accounts for roughly 45 per cent of Kenyan exports and the United States for about 9 per cent. Exports destined to the East African region constitute only about 10 per cent of total Kenyan exports. The balance of trade with Tanzania and Uganda is highly favourable to Kenya and with the opening of the Tanzanian border in 1983 - exports to Tanzania have quadrupled over the 1983-1986 period. The acceleration of national economic reconstruction in Uganda is also likely to lead to a significant boom for manufacturing exports from Kenya. But in order to sustain such developments, it is necessary to construct long-term viable arrangements whereby Tanzanian and Ugandan access to the Kenyan market is also improved.

1/ Estimates not available for Tanzania and Uganda.

2/ Barclays.

3/ Estimates not available for Uganda.

Kenyan imports from these countries equal about KSh 4 million - less than 0.3 per cent of total Kenyan import expenditure - in a typical year. The collapse of the East African Community (EAC) was the result of a growing imbalance in regional trade. If the Preferential Trading Agreement (PTA) arrangements are to become durable and effective, they must provide a framework for an equitable distribution of the benefits of expanded inter-regional economic co-operation.

Kenya's total external debt has increased from \$3.5 billion in 1980 to \$4.2 billion in 1988 - 67 per cent of this is in the form of public or publicly guaranteed borrowings. Debt servicing is estimated at about \$400 million per annum over the period 1987-1989 - provided of course no major new loans are contracted. Terms of borrowing have hardened - the average interest rate rising from 5 per cent in 1983 to almost 7 per cent in 1988 and the maturity period being significantly shortened. Despite the rise in debt repayment obligations, the rate of commercial borrowings has not slackened significantly during 1987. Kenya's volume of external debt is reported to be larger than that of other East African countries - however estimates for Sudan and Uganda, two very heavily indebted countries are not available.

The Kenyan economy has relied heavily in the past on foreign finance to stimulate its development. As net direct investments have declined and development needs have expanded, it has naturally turned to the Euro-currency markets and multilateral and bilateral aid donors. But sustaining the burden of external borrowings has become difficult and increasing emphasis will have to be placed in the future on structural changes with the economy which can both reduce import intensity and increase foreign exchange earnings while generate an investable surplus for sustaining a high rate of employment and output growth. The development strategy outlined in the Sessional Paper No. 1 of 1986 indicates that the manufacturing sector has an important role to play if self-reliant growth is to become possible for Kenya.

1.3 An overview of the manufacturing sector

Kenya's manufacturing sector is characterized by its bias towards the domestic market, its reliance on foreign inputs and its capital-intensive nature. These characteristics result from the fact that the manufacturing sector was established mainly to cater to the domestic market through an import-substitution policy. Major industries in terms of value production and employment generation are food production, the petroleum industry, the metal industry including electrical machinery and automobile industry, textiles and beverage industry. It was estimated in 1985 that there were 560 large- and medium-scale enterprises, 720 small-scale units and over 1,600 informal sector workshops within the industrial sector. Total employment in manufacturing stood at 128,700 in 1986. Foreign investors control about two-thirds of large-scale manufacturing enterprises. There is also significant public ownership.

There have been very wide erratic fluctuations in growth, and there has been a very little structural change. High material costs and low and declining capital productivity levels have meant that the gross profit to gross output has remained very low by developing country standards. Despite a decline in the value of fixed capital stock in the manufacturing sector capital-intensity remains high and the capacity of the modern enterprise sub-sector to generate employment has not increased. Kenya has a relatively high level of industrial concentration within the modern sector. The lack of medium-sized modern manufacturing firms is perhaps the single most significant deficiency in the

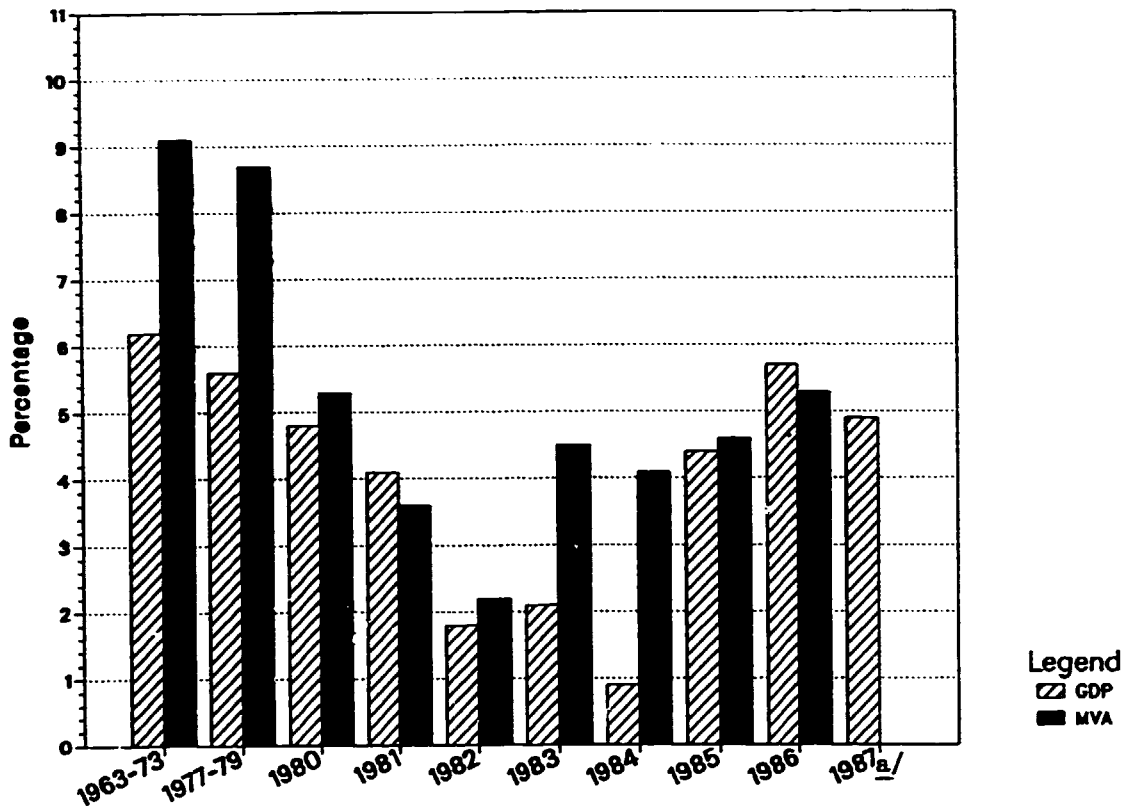
industrial structure. The absence of such firms makes the diffusion of industrial skills and production technology from the modern to the informal sector very difficult. Although the informal sector has expanded it can thrive only if subcontracting and technological links can be established between it and the modern firms.

The growth of the informal sector was attuned to the domestic demand orientation of manufacturing development. The government pursued an import-substituting industrialization strategy during the 1960s and 1970s and the import to domestic consumption ratio of a very wide range of manufactured products remains high. It seems difficult to argue that the process of import substitution has been "completed" in Kenya. The import substitution that has occurred is mainly limited to food processing, textiles, a small range of chemicals and petroleum-based products and cement. There has been little import substitution in e.g. the metal products, wood products (excluding paper), non-electrical machinery, fertilizers. etc. Policies which can stimulate selective efficient import-substitution thus retain their relevance in Kenya.

Manufacturing employment has contracted in recent years as has the rate of gross fixed capital formation. The government aims at liberalization and rationalization of the tariff structure. Restructuring of the manufacturing sector to strengthen integration of industrial linkages is deemed vital to stimulate the growth of output, employment and exports.

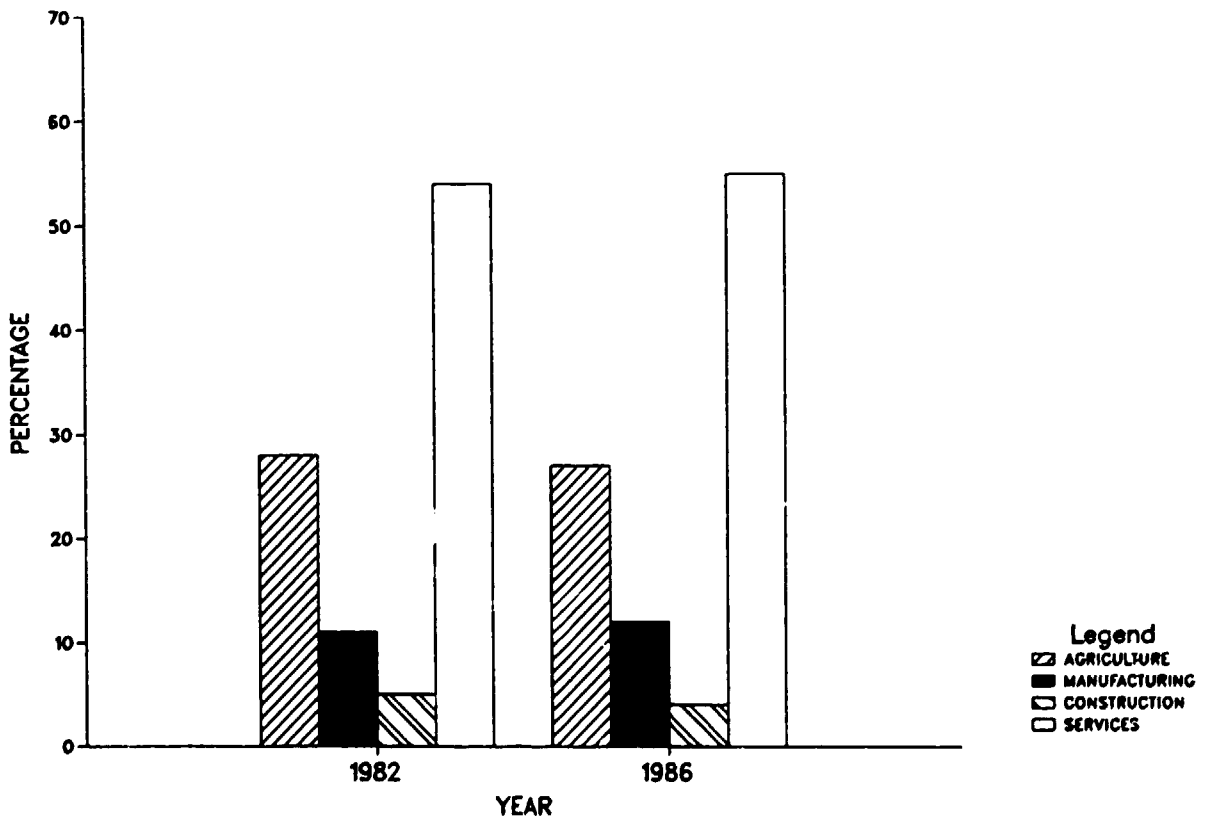
1/ The figures for 1986 are excluded, the average growth ratio is reduced to about 4 per cent.

REAL GROWTH RATES OF GDP AND MVA, 1963-1987

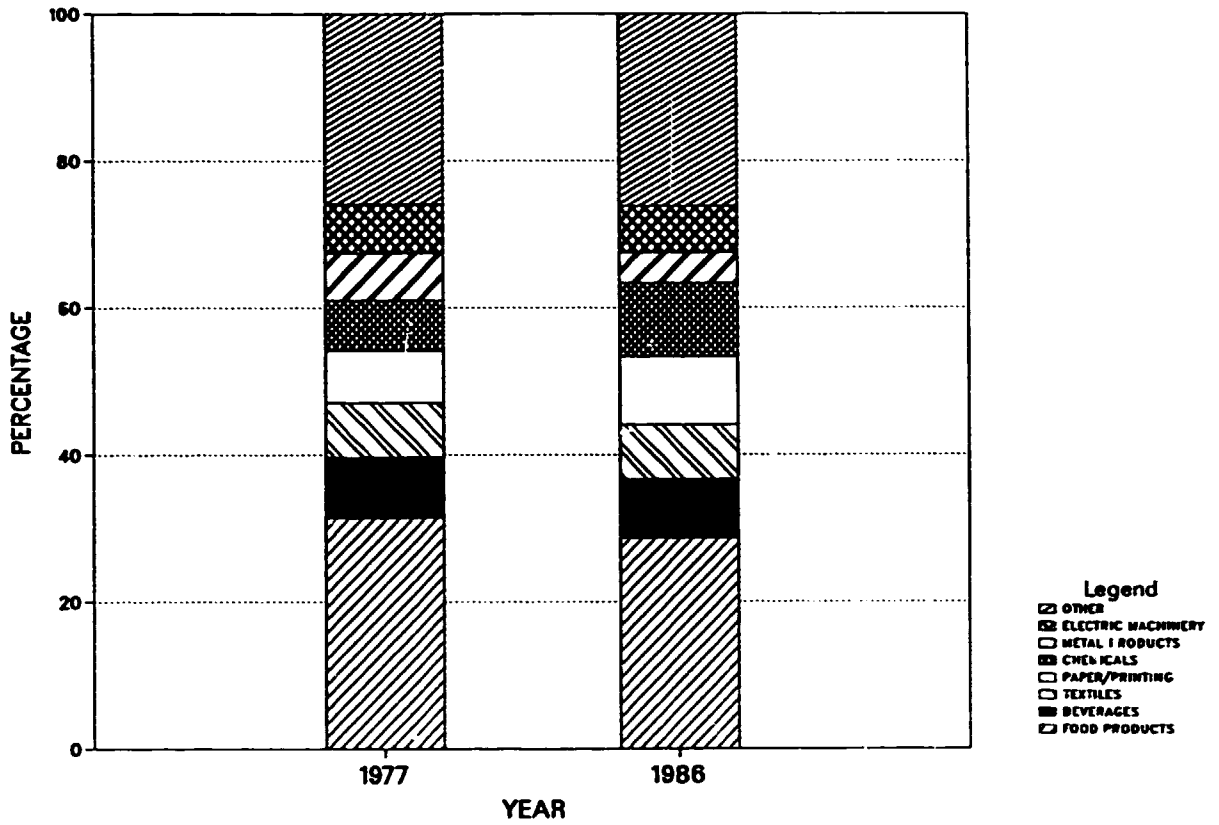


^{a/} MVA growth rate for 1987 is not available.

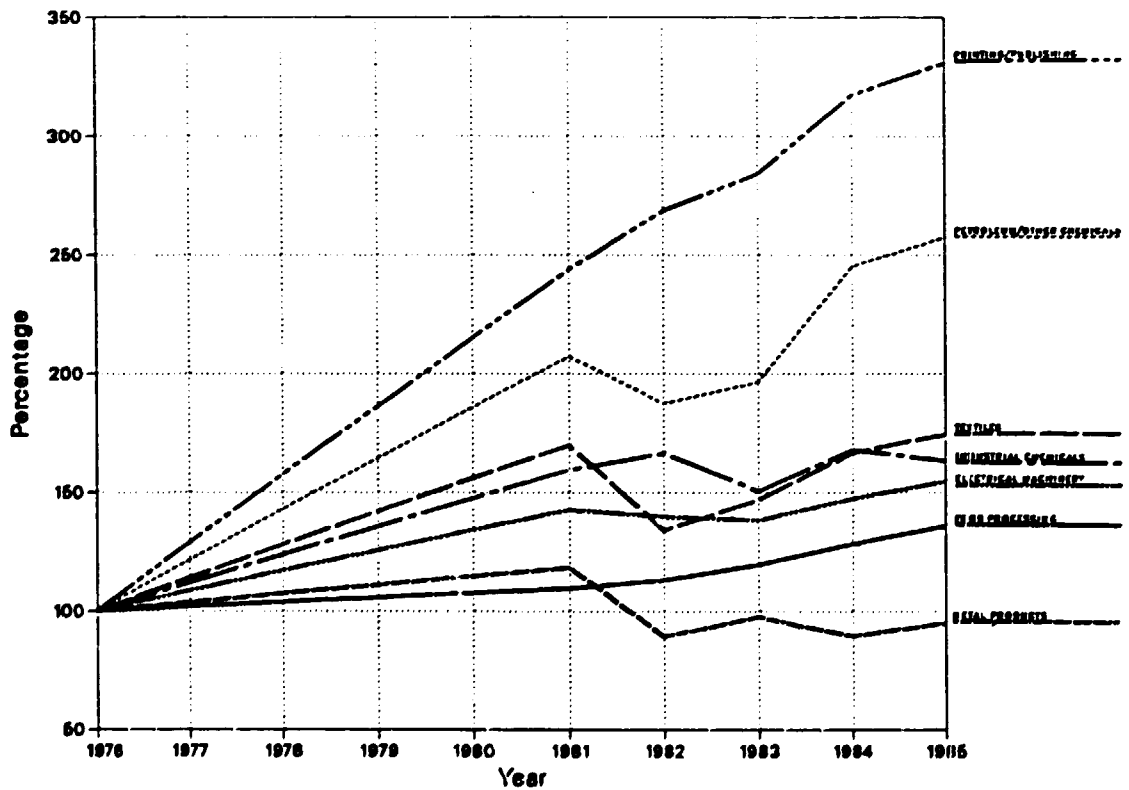
DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1982 AND 1986



COMPOSITION OF MANUFACTURING VALUE ADDED, 1977 AND 1986

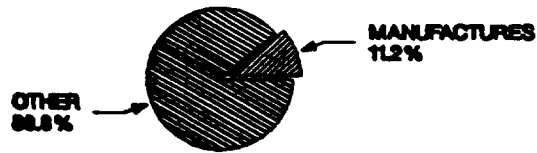


QUANTITY INDEX OF MANUFACTURING OUTPUT, 1981-1985 (1976=100)

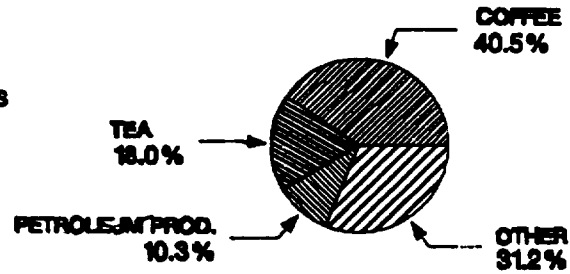


EXPORTS AND IMPORTS

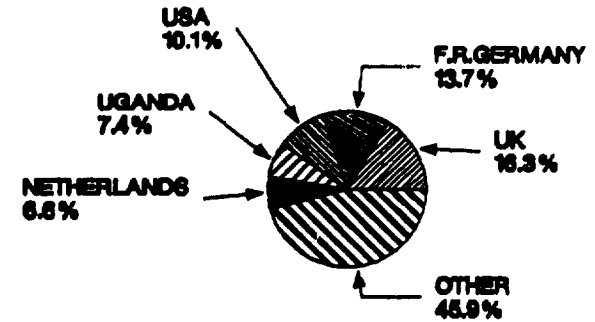
SHARE OF MANUFACTURES
IN TOTAL EXPORTS, 1983



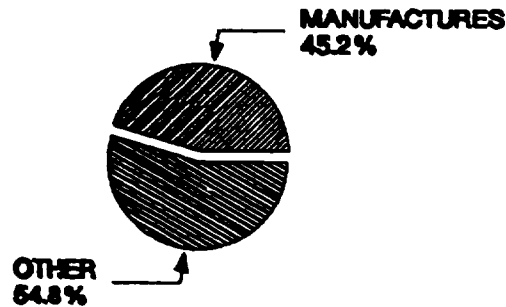
COMPOSITION OF EXPORTS, 1986



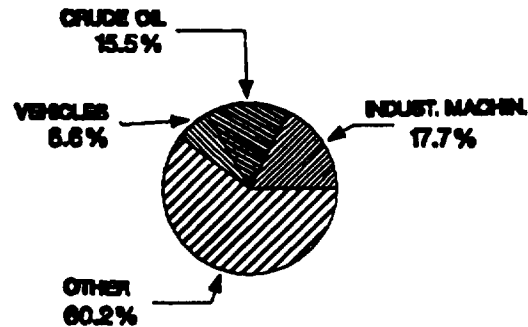
DESTINATION OF EXPORTS, 1986



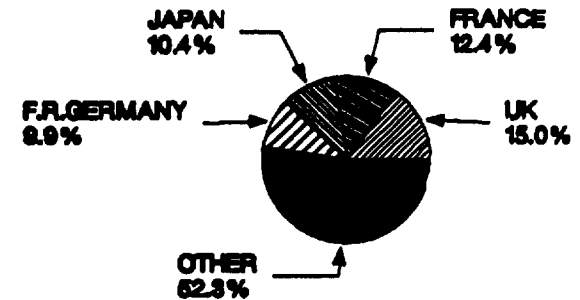
SHARE OF MANUFACTURES
IN TOTAL IMPORTS, 1983



COMPOSITION OF IMPORTS, 1986



ORIGIN OF IMPORTS, 1986



2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

2.1 Growth and structural change

During 1963-1973, the rate of growth of MVA was in most years significantly in excess of the average rate of growth of the Kenyan economy. Thus while GDP grew at an average annual rate of 6.2 per cent, the average rate of MVA growth was 9.1 per cent during this period. As Table 2.1 shows, the growth performance of the manufacturing sector has decelerated significantly during the 1970s and 1980s. In most years the average MVA growth rate has not been higher than 5 per cent per annum - exceptional years being 1977 and 1978 when MVA growth exceeded 10 per cent. Intra-sector fluctuations in growth during this period have been very high. Although annual growth rates of MVA measured in constant 1982 price as presented in Table 2.1 are not exactly corroborated by index of industrial production (1976=100) reported in Annex Table A-1, the latter virtually depicts the wide variations in sub-sectoral growth rates.

The manufacturing sector, developed within the framework of the former East African Community (EAC), enjoyed strong protection against foreign competition and virtually tax-free access to investment in machinery and capital equipment. Consequently during the 1960s the sector grew significantly. The slow down in the rate of growth in the following decade, particularly by the end of the 1970s was due to foreign exchange shortages which limited industrial inputs, drought which raised the price of domestic inputs, and the abolition of the EAC which eliminated the larger protected market. In 1983 the markets of EAC countries were opened for trade and in 1984 the Preferential Trade Agreement (PTA) was signed.

In 1985 MVA grew by 4.6 per cent as a result of increased agricultural income and its favourable impact on domestic consumption of manufactured goods, as well as improvements in the availability of imported inputs. Most sub-sectors of manufacturing recorded increases in MVA significantly above the targets set for the 1984-1988 Development Plan. However, sugar and confectionary, clothing, leather products and footwear, wood and cork products, industrial chemicals, and transport equipment suffered negative growth rates. A 12.9 per cent decline in transport equipment was attributed to the reduction of import duty on imported vehicles which adversely affected the local production of vehicles. In 1986 MVA in real terms grew by 5 per cent and manufacturing output by 5.3 per cent. Table 2.2 presents data pertaining to the value of manufacturing output in current prices.

The erratic fluctuations in growth rates have ensured that structural change in MVA has remained very limited since 1977. The extremely limited structural change in Kenyan MVA during 1976-1985 is revealed by data presented in Table 2.3. The five leading industrial branches were food products, beverages, textiles and fabricated metal products,^{1/} and electrical machinery. They accounted for 60.2 per cent of MVA in 1977. In 1986 they contributed 54.6 to MVA. Food products, textiles, beverages, transport equipment^{2/} and electrical machinery continued to be the five leading sub-sectors of manufacturing in 1987, with the MVA share of these five leading branches unchanged at 60.6 per cent. Thus it is clear that the structure of the manufacturing sector in the late 1980s remains broadly similar to that of

1/ These two branches had equal relative weight in the 1976 distribution.

2/ Mainly involving assembly operations.

Table 2.1: Growth of value added by sub-sector of manufacturing, 1977-1985
(at constant 1982 prices)

Sub-sector	1977	1978	1979	1980	1981	1982	1983	1984	1985
Meat and dairy products	1.6	-30.7	-14.2	-20.5	15.8	12.6	28.1	-15.3	19.3
Canned vegetables, fish, oils and fats	29.9	7.6	2.6	10.7	-5.4	1.1	20.7	-8.6	16.2
Grain mill products	-2.1	1.9	-2.2	28.4	16.3	21.2	-12.6	6.3	8.0
Bakery products	2.9	4.6	-21.7	3.1	-20.5	35.2	19.7	-2.0	10.3
Sugar and confectionery	8.7	15.0	19.2	32.0	-12.1	16.3	5.7	23.6	-6.1
Miscellaneous foods	15.6	6.1	6.4	-16.4	7.2	9.9	-5.2	4.0	12.8
Beverages and tobacco	12.6	14.5	2.1	2.7	1.4	-5.6	-0.8	5.0	7.3
Textiles	29.8	8.1	8.7	5.7	5.4	-21.1	11.0	12.0	4.6
Clothing	63.8	25.4	14.0	17.6	37.9	2.3	4.7	-9.2	-4.6
Leather products and footwear	-5.7	22.0	-12.7	-6.2	17.8	-16.4	0.3	-12.7	-1.5
Wood and cork products	13.2	7.1	7.3	3.8	-7.1	5.2	-16.9	-16.5	-27.4
Furniture and fixtures	12.9	-16.7	-38.3	32.2	1.0	-16.3	3.4	4.0	2.6
Paper and paper products	17.2	23.6	7.8	0.1	-13.3	5.4	-9.3	5.9	7.3
Printing and publishing	28.2	22.6	36.6	-14.0	32.0	10.2	5.8	11.7	4.3
Industrial chemicals	28.1	-0.8	15.8	18.6	-8.8	4.5	-9.6	11.5	-2.7
Petroleum and other chemicals	18.1	8.9	6.1	43.0	6.2	-9.6	4.9	24.6	5.0
Rubber products	19.7	2.8	48.5	5.4	5.9	-25.1	27.8	16.7	8.7
Plastic products	35.1	32.5	9.9	5.6	-14.9	-7.3	7.8	5.5	6.3
Pottery and glass products	120.8	8.3	3.2	17.4	-31.6	-8.4	19.4	30.2	2.4
Non-metallic mineral products	18.0	-4.6	2.6	9.4	-1.1	-0.2	-2.0	-11.3	12.5
Metal products	10.7	11.7	9.1	-4.1	-8.6	-24.6	9.2	-8.2	6.0
Non-electrical machinery	-2.1	2.1	-2.6	27.1	-17.2	-4.7	2.5	3.0	6.3
Electrical machinery	19.4	33.6	-4.4	3.5	-9.6	-2.0	-1.1	6.5	5.0
Transport equipment	108.3	175.9	11.8	2.5	19.7	-1.8	16.8	-14.3	-12.9
Miscellaneous manufactures	-46.9	84.9	26.7	10.6	6.7	-26.5	10.1	32.7	28.2
Average growth rates:	15.3	13.2	7.6	5.3	3.6	2.2	4.5	4.1	4.6
Production indices:	65.0	70.3	74.8	84.0	90.1	100.0	104.9	113.6	122.2

Source: Central Bureau of Statistics, Statistical Abstract, various issues.

Table 2.2: Value of manufacturing output, 1976, 1980 and 1985
(in current KSh '000)

Sub-sector	1976	1980	1985
Meat and dairy products	40,087	50,679	154,225
Canned vegetables, fish, oils and fats	31,989	51,447	129,346
Grain mill products	45,612	59,093	218,869
Bakery products	11,193	16,850	60,419
Sugar and confectionery	24,849	64,023	94,196
Miscellaneous foods	180,045	187,700	653,859
Beverages and tobacco	47,204	73,845	216,016
Textiles	31,717	73,618	144,956
Clothing	20,250	27,668	68,779
Leather products and footwear	10,732	16,987	39,606
Wood and cork products	12,828	24,537	43,518
Furniture and fixtures	12,399	15,008	21,530
Paper and paper products	27,883	41,066	93,597
Printing and publishing	22,477	32,864	54,771
Industrial chemicals	21,141	41,049	91,926
Petroleum and other chemicals	143,108	221,859	617,590
Rubber products	9,531	32,939	64,183
Plastic products	6,605	15,768	42,615
Pottery and glass products	3,073	5,440	8,618
Non-metallic mineral products	25,682	33,834	96,377
Metal products	52,849	101,440	241,953
Non-electrical machinery	9,146	7,671	20,046
Electrical machinery	18,879	46,877	119,606
Transport equipment	27,161	95,244	208,382
Miscellaneous manufactures	17,632	12,623	30,593
Total	854,072	1,360,129	3,535,575

Source: Central Bureau of Statistics, Statistical Abstract, various issues.

the mid-1970s. Consumer good branches (ISIC 311-ISIC 324) still account for 50.9 per cent of MVA in 1986. The other significant branches in terms of contribution to MVA are the electrical and transport equipment branches basically involved in simple assembly operations.

The intermediate branches - the development of which are very important for industrial diversification - constitute a relatively minor segment of Kenyan manufacturing. In 1977 the intermediate branches (ISIC 331-ISIC 369) represented 28.6 per cent of MVA. By 1986 this share had registered a marginal increase to 31.4 per cent. If printing and publishing - which had constant growth record and almost doubled its MVA share during 1977-1986 - is excluded from the category of intermediate goods, the MVA share of this category remained stagnant at around 26 per cent during the same period. Despite being East Africa's most diversified manufacturing sector, there exists significant production "gaps" and the process of industrial diversification has perceptibly slowed down during the previous decade.

The structure of manufacturing employment has virtually remained stagnant over years. The contribution of the manufacturing sector to the growth of employment has been modest. As Annex Table A-2 shows, employment in the large-scale firm sector remained virtually unchanged over the period 1976-1985. Alarming large-scale manufacturing employment has declined from 141,452 in 1982 to 125,050 in 1985. Although there have been an upturn in 1986, the long-term trend does not seem to be significantly improved. With the possible exception of the transport equipment branch, significant employment growth has not been recorded in sectors which have experienced rapid growth in MVA. This would indicate that there has been no significant decline in the capital-intensity of manufacturing production in the past decade.

Overall, the industrial performance is characterized by erratic and widely fluctuating growth, very limited structural change and a virtual stagnation of manufacturing employment. The performance of the Kenyan manufacturing sector can thus be judged to have deteriorated significantly during the post-1973 period. A major improvement in enterprise efficiency is required to recoup the previous losses and to cope with the future challenges.

2.2 Performance and efficiency

Table 2.4 presents estimates of labour productivity growth (measured in terms of MVA per employee at constant 1983 prices)^{1/} in the large-firm sector over the 1976-1985 period. Productivity thus measured is seen to have increased significantly though this may represent more an increase in capital-intensity than growth in the efficient use of resources. Growth in capital-intensity is reflected in the fall in the employment elasticity. The ratio of change in employment to change in output fell from an average of 0.64 during 1963-1973 to an average of 0.53 during 1976-1985.^{2/} There is some evidence that productivity growth was higher in the first half of the 1976-1985 period and that it was higher in the medium than in the really large manufacturing enterprises. This would indicate a decline in the efficiency of

1/ MVA per employee measured in current prices is presented in Annex Table A-3.

2/ Employment elasticity is defined as the ratio of employment growth to value added growth. For the period 1975-1984 it is presented in Annex Table A-4.

Table 2.3: Composition of manufacturing value added, 1977-1986
(Percentage share at 1980 prices)

Description (ISIC)	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL MANUFACTURING(300)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food products(311)	31.4	27.1	26.5	24.6	24.7	26.9	27.1	27.8	28.4	28.7
Beverages(313)	8.3	8.3	8.1	7.9	7.8	7.4	6.5	6.7	7.2	8.0
Tobacco(314)	2.9	3.0	2.9	2.7	2.9	3.2	3.7	3.3	3.0	2.9
Textiles(321)	7.4	7.1	7.3	7.3	7.6	6.3	6.6	7.1	7.2	7.4
Wearing apparel,except footwear(322)	1.6	1.8	1.9	2.2	3.0	3.2	3.2	2.6	2.5	2.4
Leather products(323)	0.9	1.0	0.8	0.7	0.8	0.7	0.6	0.6	0.6	0.5
Footwear,except rubber or plastic(324)	1.6	1.8	1.4	1.3	1.5	1.3	1.3	1.0	1.0	1.0
Wood products,except furniture(331)	2.8	2.6	2.6	2.6	2.4	2.7	2.1	1.7	1.2	1.1
Furniture,except metal(332)	2.4	1.8	1.0	1.3	1.3	1.1	1.1	1.1	1.1	..
Paper and products(341)	4.3	4.8	4.9	4.6	4.0	4.4	3.6	3.6	4.0	4.0
Printing and publishing(342)	2.8	3.0	3.9	3.2	4.2	4.8	4.9	5.2	5.2	5.2
Industrial chemicals(351)	2.3	2.5	2.7	3.0	2.7	3.0	2.6	2.6	2.6	2.5
Other chemicals(352)	4.5	4.5	4.2	5.6	5.9	5.6	6.6	6.7	6.6	7.0
Petroleum refineries(353)	1.7	1.5	1.8	2.4	2.5	2.4	2.4	2.9	2.9	3.0
Misc. petroleum and coal products(354)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubber products(355)	2.5	2.3	3.3	3.2	3.4	2.7	3.2	3.6	3.6	3.6
Plastic products(356)	1.4	1.7	1.8	1.7	1.5	1.4	1.7	1.5	1.5	1.5
Pottery, china, earthenware(361)	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Glass and products(362)	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4
Other non-metallic mineral prod.(369)	3.4	3.0	2.9	3.0	2.9	3.0	2.9	2.4	2.6	2.8
Iron and steel(371)	..	..	..	1.4	..	..	..	..	..	..
Non-ferrous metals(372)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fabricated metal products(381)	6.4	6.3	6.5	5.9	5.4	4.3	4.4	3.9	4.0	4.2
Machinery,except electrical(382)	0.8	0.7	0.7	0.8	0.6	0.6	0.6	0.6	0.6	0.7
Machinery electric(383)	6.7	7.9	7.2	7.0	6.2	6.5	6.1	6.2	6.3	6.3
Transport equipment(384)	2.4	5.9	6.3	6.0	7.2	7.4	6.2	6.6	6.7	6.7
Professional & scientific equipm.(385)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other manufactured products(390)	1.1	0.9	1.0	1.1	1.1	0.9	0.9	1.2	1.4	1.8
TOTAL MANUFACTURING IN THOUSANDS US \$	600177	673508	716027	757100	762550	727610	761897	798013	826000	869486

Source: Statistics and Survey Unit, UNIDO. Based on data supplied by the UN Statistical Office, with estimates by the UNIDO Secretariat.

Note: TOTAL MANUFACTURING is the sum of the available components and does not necessarily correspond to ISIC 300 total.

capital use. This finding is corroborated by the fact that total factor productivity growth fell from 8.2 per cent during 1976-1979 to 4.8 per cent during 1986-1987. Capital productivity growth fell from 0.9 per cent per annum during 1976-1979 to minus 2.7 per cent during 1980-1985. There is thus clear evidence of declining capital efficiency in the first half of the present decade in the Kenyan manufacturing sector. This has been accompanied by a rise in the rate of capacity utilization estimated at about 80 per cent (Table 2.5). There is thus evidence of increased obsolescence of capital stock and the inauguration of a major reinvestment initiative to increase capital efficiency in the manufacturing sector.

An 80 per cent capacity utilization rate estimated for large-scale firms does not necessarily reflect the rate of capacity utilization across the entire industrial sector. The rate of capacity utilization in the entire Kenyan industrial sector is estimated at 35 per cent of installed capacity. In some industries capacity utilization is even less, at 23 per cent for steel and foundries, 22 per cent in hand tools and cutlery manufacture, about 30 per cent in metal engineering industries and 50 per cent in plastics.^{1/}

Productivity growth rates tend to vary widely. The tobacco, beverages, paper and paper products, and electrical machinery industries have shown considerable improvements in productivity levels. In contrast the metal products (except machinery), wearing apparel, glass and glass products, pottery, china and earthenware, and other non-metallic products have shown a marked fall in the level of value added per employee during 1975-1984 (see Table A-4). Table 2.4 suggests that in some industries, such as sugar and confectionery, textiles, leather products and footwear, paper and paper products, plastic products, non-metallic mineral products and non-electrical machinery productivity levels remained largely unchanged when comparing levels of value added per employee in 1976 with that in 1985.

The decline in factor productivity growth has been accompanied by a decline in the gross profit rate. As Table 2.6 shows, both the value added to gross output and the gross profit to gross output ratios are extremely low by both African and developing country standards. UNIDO estimated that the average value of the group of representative countries for the late 1970s was about 40 per cent. In Kenya, the value of this ratio is less than half that level. This reflects the relatively higher level of material costs with which the Kenyan manufacturing sector is burdened. Increasing efficiency in resource use as well as rapid replacement of old and obsolescent capital stock thus seems to be of considerable importance for an improvement in the operational efficiency of the Kenyan manufacturing sector.

The very low and declining gross profit rate indicates that there is a declining capacity for generating investible surplus within the sector. The gross profit to value added ratio is also lower in Kenya than in most African developing countries. Gross profits typically account for over 50 per cent of value added in Kenyan manufacturing and as Annex Table A-5 shows there is no clear declining trend. While the gross profit to value added ratio fell during 1980-1982, it increased during both 1983 and 1984. It is thus clear that high and rising material costs are a much more important constraint on improving efficiency within Kenyan manufacturing than are wage costs. Moreover, reducing unit wage costs can depress domestic demand and create problems for the import substituting manufacturing units.

1/ African Business, April 1987, p. 40.

Table 2.4: Value added per employee in large-scale firms by sub-sector, 1976-1985
(KSh'000 at 1983 prices)

Sub-sector	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Meat and dairy products	2,348	3,126	1,274	1,923	1,661	2,132	2,598	3,475	1,844	4,511
Canned vegetables, fish, oils and fats	2,392	3,061	3,010	3,002	4,731	3,889	3,920	4,470	4,692	5,454
Grain mill products	1,000	1,127	1,142	1,032	1,140	1,073	1,626	1,382	1,430	1,492
Bakery products	2,265	1,842	2,350	1,310	1,202	909	1,550	1,954	1,170	1,218
Sugar and confectionery	3,430	3,960	4,278	3,102	5,008	4,639	3,839	3,450	3,180	
Miscellaneous foods	1,677	2,261	2,206	2,127	1,631	1,760	1,889	1,756	1,876	2,105
Beverages and tobacco	5,864	6,316	6,859	6,612	9,154	8,604	6,385	6,385	6,065	7,342
Textiles	1,442	1,691	1,605	1,570	1,700	1,466	1,109	1,062	1,492	1,738
Clothing	532	839	1,139	1,207	1,197	1,520	1,352	1,394	1,447	1,153
Leather products and footwear	2,513	1,975	1,824	1,555	1,482	1,690	1,657	1,646	1,708	5,257
Wood and cork products	967	1,103	1,090	1,119	1,138	936	993	7,355	846	657
Furniture and fixtures	3,285	2,360	1,834	1,093	1,960	1,845	1,809	1,649	1,276	1,761
Paper and paper products	3,332	3,791	5,167	4,628	4,730	3,926	4,195	3,525	3,832	3,543
Printing and publishing	1,004	1,623	2,074	2,882	2,537	3,342	3,188	3,262	4,453	4,405
Industrial chemicals	2,269	4,586	3,937	4,442	4,292	3,408	3,668	3,387	3,627	3,889
Petroleum and other chemicals	3,936	4,173	4,376	4,895	5,639	4,459	4,098	4,237	5,658	5,702
Rubber products	5,814	6,332	4,566	6,347	7,119	7,481	6,756	8,131	9,900	10,233
Plastic products	2,191	2,000	2,349	2,405	2,796	2,534	2,266	2,171	2,487	2,286
Pottery and glass products	1,281	2,423	2,343	2,387	2,827	1,743	1,415	1,574	2,235	2,215
Non-metallic mineral products	1,760	1,925	2,077	1,975	1,683	1,767	1,503	1,392	1,429	1,927
Metal products	3,155	3,209	3,571	3,233	2,552	2,247	1,917	1,903	2,137	2,107
Non-electrical machinery	3,283	2,349	2,954	2,106	2,129	1,962	2,297	1,896	4,070	3,019
Electrical machinery	3,203	3,583	4,471	3,719	3,901	3,295	3,020	2,884	13,813	12,151
Transport equipment	156	296	842	876	923	1,080	1,024	1,133	1,376	1,295
Miscellaneous manufactures	929	949	1,492	1,799	1,381	1,093	734	739	1,106	1,222
Total	1,821	2,070	2,177	2,179	2,290	2,203	2,225	2,328	2,600	2,865

Source: Central Bureau of Statistics, Statistical Abstract, various issues.

Table 2.5: Capacity utilization rates in large-scale manufacturing firms, 1987
(percentage)

Sub-sector of manufacturing	Capacity utilization
Food products	89
Beverages and tobacco	75
Textiles and clothing	96
Leather and footwear	53
Paper and wood	93
Plastics and pharmaceuticals	72
Chemicals	86
Cement and glass	88
Iron and steel products	56
Electrical and transport equipment	42

Source: World Bank, Kenya: Industrial Sector Policies for Investment and Export Growth, May 4, 1987, Main Report.

Table 2.6: Selected performance indicators of manufacturing enterprises, 1970-1985
(percentage)

	<u>Gross profit</u> Gross output	<u>Value profit</u> Value added	<u>Value added</u> Gross output
1970	15.50	47.13	28.29
1975	12.92	56.63	22.92
1980	12.43	56.92	19.21
1985	10.12	53.59	18.92

Source: UNIDO data base.

Variations in performance across the manufacturing sector has been considerable over the period 1971-1985 (Annex Table 2-6). In 1985, the highest value of the ratio of gross profit to value added were recorded in beverages, electrical machinery, tobacco, wood products, and leather products branches. This indicates that the crisis of the early 1980s affected the intermediate and heavy industrial branches more severely. Firm conclusions are, however, difficult to draw on the basis of the data presented in Table A-6 because virtually every branch witnessed a large variation in the value of the gross profit and the value added to output ratio during the past two decades. It is evident, however, that whereas it is difficult to discern a trend for the consumer goods industries the value added to gross output

ratio has fallen throughout the period 1971-1985 for the intermediate branches.^{1/} The only branch for which the value added to gross output rose throughout the period was leather products. The decline in the value added ratio does not seem to be associated with a relatively high wage component of value added. The average value of "labour costs"^{2/} to value added in the consumer goods branches (from "meat and dairy" to "wood and cork") is 49 per cent in 1985. The value of this ratio for the intermediate goods industry (from paper products to plastic products) is 45.5 per cent. Hence wage costs do not seem to have been a major influence determining performance differentials within the Kenyan manufacturing sector.

The decline in the performance of the intermediate and of some capital goods branches seem to be related much more closely to higher unit material costs and declining productivity of an ageing capital stock. An increase in manufacturing investment is thus an important prerequisite for improving operational efficiency levels within the sector.

2.3 Investment and ownership patterns

Reliable estimates on gross fixed capital formation within the manufacturing sector are difficult to obtain. It is estimated that total capital stock within the manufacturing sector declined from KSh 1428.3 million in 1976 to KSh 1245.9 million in 1985. When measured at constant 1982 prices the manufacturing investment has declined very significantly during the 1976-1985 period - the upturn in 1986 (Table 2.7) is entirely due to the buoyant coffee market. Even in 1986 investment in manufacturing was equivalent to only 55 per cent of real manufacturing investment in the boom year of 1978. Investment in machinery has declined in a similar way. The 1985 level of investment in machinery was equivalent to 39.4 of the level recorded in the peak year of 1978. (Table 2.7)

Manufacturing investment as a percentage of gross fixed capital formation has also tended to decline - from 13.4 per cent in 1980 to 10.6 per cent in 1985. It is thus clear that the annual rate of fixed capital formation in the manufacturing sector is significantly lower than the real rate of depreciation of stock. The existence of excess capacity in some sub-sectors (such as basic metals) should not be taken to obscure the fact that obsolescence of stock is perhaps the single most important constraint on productivity growth in Kenya. A modernization programme aimed at replacing the rapidly ageing and inefficient capital stock is urgently needed. However, care should be taken to ensure that the introduction of new technology does not increase the capital-intensity of manufacturing production. Kenya possesses expertise which can enable the country to procure appropriate technology - particularly in countries such as the People's Republic of China, Egypt, India, and Pakistan - which allows an optimum utilization of the country's factor endowment. The substitution of such technology will be difficult, however, as long as industrial concentration remains high and major manufacturing branches remain dominated by firms (particular foreign firms) which are used to procuring technology from established sources.

1/ ISIC 342, ISIC 351, ISIC 352, ISIC 353, ISIC 355, ISIC 356, ISIC 361, ISIC 362, ISIC 369 and ISIC 371.

2/ "Labour costs" are not synonymous with the "wages" definition in the UNIDO data base.

Table 2.7: Investment in the manufacturing sector, 1976-1986
(KSh million)

Year	Total investment	Investment in machinery ^{a/}	Percentage
1976	108.65	85.04	78.26
1977	129.23	110.25	85.31
1978	156.78	134.57	85.83
1979	137.65	97.76	71.02
1980	110.07	88.35	80.26
1981	100.31	81.26	81.00
1982	66.01	53.86	81.59
1983	80.85	61.77	76.46
1984	68.59	56.89	82.94
1985	63.93	53.02	82.93
1986	86.46 ^{b/}	...	...

Source: Central Bureau of Statistics, Annual Statistical Abstracts, various issues.

a/ Other constituents of manufacturing investment are buildings, other construction and transport equipment.

b/ Provisional estimate.

An important cause of decline in investment within the manufacturing sector has been a significant increase in the cost of borrowing. The real interest rate which was negative for most of the 1970s is currently estimated at over 10 per cent. The cost of foreign borrowing has also escalated due to the depreciation of the Kenyan shilling against major European currencies by over 100 per cent during 1979-1987. The creditworthiness of Kenyan enterprise has declined.

All major manufacturing investors have been reluctant to increase or replenish asset holdings during the past decade. The government which has a portfolio of over a hundred industrial companies has embarked on a major privatization programme partly to meet IMF conditionality and partly to cut back on the losses of the public enterprise sector. High material costs and difficulties in obtaining bank credit have deterred an expansion of private sectors investment. Large foreign investors have not responded to the government's incentive programmes and have been selling off their holdings during 1985-1987. Moreover barriers to entry in the Kenyan manufacturing sector remain very high and the gulf separating the large- and the small-enterprises within the manufacturing sector remains huge. It is therefore not possible for small-scale African entrepreneurs to graduate from the informal (or even the medium-scale) sector - and take up the slack created by the decline in large-scale manufacturing investment. This means that the contraction of the public manufacturing sector amounts to a serious set-back as far as the government's indigenization programme is concerned.^{1/}

1/ See Chapter 4.

The government has a major share in 38 parastatals and minority holdings in 66 industrial enterprises. Ownership is spread fairly evenly across most manufacturing branches, but the major public holdings are in textiles, sugar refinery and cement.^{1/} An annual review of public sector performance is not available. But negative rates of return have been recorded in recent years in sugar and textile public enterprises. Many public enterprises have heavy debt burdens and suffer from the use of inappropriate technology.

The 1986 World Bank Survey of the manufacturing sector found that for the seven public enterprises for which it collected data, the financial rate of return was 15 per cent - not significantly different from the value of this ratio for the 13 foreign firms for which data was collected.^{2/} These results as the Report states are strongly affected by the inclusion of one large efficient foreign firm. If this firm is removed from the sample, the foreign private sector becomes the least efficient, most protected and least profitable of the three enterprise categories^{3/} (the public enterprises, domestic private firms and foreign enterprises). Local manufacturing firms are the most efficient and least protected groups - their financial rate of profit was estimated at 20 per cent and their effective rate of protection (ERP) was found to be 60 per cent - as against ERP value of 184 per cent for public firms. As Table 2.8 shows the Bank also found evidence to support the view that profitability varied mainly with size - smaller firms had a higher financial rate of return although the level of protection was roughly equivalent to that of the larger firms.^{4/} In general the survey found that firms with high import content of production, high effective rates of protection and high capital-labour ratios tended to be relatively inefficient. As Table 2.9 shows the greater efficiency of the smaller sized firms is gradually reducing the degree of concentration within Kenyan manufacturing. However, "competitive" firms still account for just a little over one third of manufacturing sales. Moreover, gains of the competitive firms (mainly over the oligopolies) have been made during the early 1980s - a period of import restraint. In the period of expansion (1976-1980) the market share of the oligopolies actually increased from 63 per cent to 68 per cent.

Increasing the efficiency of manufacturing enterprises is necessary for raising the diffusion of entrepreneurial and technical skills throughout the economy. The encouragement of sub-contracting links between large-scale manufacturing enterprises on the one hand and medium-sized and informal sector establishments on the other can be an important means for increasing the indirect employment generating capacity of manufacturing investment. Such links can also strengthen integration between agriculture and industry and reduce the very wide income differentials that presently exist in Kenya.

1/ The exact share of public enterprises within the manufacturing sector cannot be estimated as figures on the ownership distribution of manufacturing enterprises are not recorded in Kenyan statistical sources.

2/ This was estimated at 18 per cent.

3/ World Bank, Kenya: Industrial Sector Policies for Investment and Export Growth, May 4, 1987.

4/ Results for the smallest firms are of course not comparable with the two other groups because of the small number of such firms included in the sample.

Increasing competitiveness thus must remain an important objective of government policy. This is as important for increasing the efficiency of factor use as it is for increasing the employment potential of manufacturing output growth as well as for accelerating the country's export drive.

Table 2.8: Firm size and performance, 1985

Firm size	No. of firms	Percentage of sample value added	Effective rate of protection (ERP)	Rate of return (percentage)
0 - 49 employees	3	0.15	195	44
50-499 employees	19	14.58	90	25
>500 employees	23	85.27	88	18

Source: World Bank, Kenya: Industrial Sector Policies for Investment and Export Growth, May 1987, Report No. 6711-KE.

Table 2.9: Distribution of sales according to firm category, 1976-1985
(selected years) (Percentage)

Firm category ^{a/}	1976	1980	1985
Competitive firms	21.8	25.9	37.7
Oligopoly firms	63.6	68.4	56.7
Monopoly firms	14.6	5.7	5.6

Source: World Bank, Kenya: Industrial Sector Policies for Investment and Export Growth, May 1987, Report No. 6711-KE.

a/ This has been calculated on the basis of an upper bound of 1000 for pure monopolies. As the number of firms in the sub-sector increases the index decreases to a lower bound of zero. For further details, see source of the table, p. 44.

2.4 Exports and imports of manufactures

Kenya's principal exports are coffee, tea and petroleum products. Manufactured exports (SITC 5 to 8 less 68) represent over 10 per cent of total exports compared with 15 per cent in 1976. The main manufactured exports are pesticides, soups, cement and iron and steel products, usually accounting for more than half of total manufactured export earnings in recent years. Exports of textiles, wood carvings, beverages and tobacco^{1/} have grown rapidly in recent years.

1/ The latter two are excluded from the narrow definition of manufactured exports (SITC 5-8 less 68).

Most manufactured exports are destined for neighbouring countries. Cement and paper exports which were more widely dispersed geographically have during the early 1980s lost non-East African markets and are increasingly concentrated within the region. Manufactured exports to the developed countries (DCs) are now limited to leather, wood carvings, wattle extracts, canned vegetables, pineapples and meat. The revival in trade links with Uganda and Tanzania is likely to have an important impact on the growth of Kenyan manufactured exports.

The first of the five basic aims of the manufacturing sector set out in the 1980 Sessional Paper is to expand and diversify the manufactured export base. This is a difficult task to achieve because Kenya has for over two decades been pursuing a policy of import-substituting industrialization and the scope for domestic demand-oriented manufacturing growth has by no means been exhausted. Despite the emphasis on export growth the share of exports in manufacturing gross output declined from 18.9 per cent in 1980 to 7.5 per cent in 1985 - in 1972 the value of this ratio had been 22.6 per cent. Moreover as Table 2.10 shows the ratio of imports to total supply of several product categories remains high. Thus the scope for efficient import substitution even at existing levels of domestic demand remains not insignificant particularly in the intermediate and heavy industrial branches.

Table 2.10: Share of imports in total supply, selected manufactures, 1983
(percentage)

Non-electrical machinery	86.6
Industrial chemicals	63.5
Electrical machinery	37.2
Petrochemicals	33.9
Pottery and glass products	32.1
Transport equipment	31.4
Metal products	17.8
Miscellaneous manufactures	16.3
Printing and publishing	14.9
Paper products	13.7
Textiles	13.1

Source: UNIDO data base.

Manufactured imports are eight times larger than manufactured exports. Hence it is increasingly important that the import content of manufacturing output be reduced and capacity created for efficient import substitution. A quick glance at Table 2.11 reveals that for a wide range of products the share of imports in apparent consumption is 100 per cent.

Table 2.12 presents an analysis of "source of growth" for the Kenyan manufacturing sector over the period 1976-1984. It is clear that export growth played no part whatever in the expansion of the manufacturing sector over this period - average export growth was actually negative. The positive and significant contribution of external demand (241.14 per cent) to the growth of non-electrical machinery should be viewed with caution as this particular sub-sector of manufacturing is branded as a declining industry.

The contribution of import substitution to overall manufacturing growth in Kenya was of the same order as in many other African countries - Nigeria, Zambia and Tanzania.

It is often alleged that there was an anti-export bias which prevented the growth of export oriented industries. Import controls and a cascading tariff structure encouraged firms to produce for the domestic market and the exchange rate remained over-valued. The effective rate of protection remains extraordinarily high for most manufactured products (Table 2.13) - but the ERP for glass and cement products, the one manufacturing branch which enjoyed significant export success is the highest of all. This indicates that, as is indeed the case, Kenya operates a comprehensive export incentive system incorporating compensation arrangements, establishment of export processing zones and other forms of institutional support. Significant expansion of manufactured exports depends most crucially on the integration of manufacturing investment strategies within the PTA region in order to promote regional trade. Without this, the rationalization and liberalization of export incentive schemes can individually achieve very little.

Table 2.11: Import to apparent consumption ratio, 1981-1984
(percentage)

Value	Product
100%	Wood pulp, mechanical, Wood pulp sulphate and soda, Wood pulp sulphite, Wood pulp semi-chemical, Newsprint, Chlorine, Nitric acid, Sulphuric acid, Titanium oxide, Lead oxide, Ammonia, Hydrogen peroxide, Calcium carbide, Dyes stuffs, Nitrogenous fertilizers, Phosphatic fertilizers, Potassic fertilizers, Rubber synthetics, Non-cellulosic staple and tar, Regenerated cellulose, Plates heavy, Plates medium, Plates and Sheets, Tin plates, Railway track material, Tubes seamless, Copper refined, Copper plates, sheets etc., Copper tubes and pipes, Aluminium, Zinc unwrought and Tin unwrought.
99%-90%	Cocoa powder ^{a/} , Insecticides
69%-50%	Cocoa butter, Vegetable oils
49%-11%	Other paper, Papery board and Distilled fuel
10%-0%	Raw sugar, Refined sugar, Chocolate ^{b/} prepared, Animal feeds ^{b/} , Cotton yarn ^{b/} , Cotton woven ^{b/} , Woollen woven ^{b/} , Footwear, Other printing, and writing paper, Zinc oxide, Soda ash ^{b/} , Motor gasoline, Kerosene, Residual fuel oils, Liquefied petroleum ^{b/} , Cement ^{b/} .

Source: UNIDO data base.

Note: a/ value = 68.0 per cent.
b/ value = 2 per cent.

Table 2.12: Sources of growth^{a/}, in Kenyan manufacturing, 1976-1984
(percentages)

	Domestic demand	Export	Import substitution
Beverages and tobacco	84.27	4.03	11.70
Textiles	31.70	-2.79	71.09
Clothing	41.11	0.69	58.80
Leather	92.87	-75.29	82.43
Wood products	97.90	-9.56	11.65
Furniture ^{b/}	-87.21	-13.45	-87.21
Paper products	75.36	-19.28	43.92
Printing and publishing	72.67	-1.34	28.67
Industrial chemicals	31.82	-7.14	75.33
Petroleum	84.26	-12.86	28.72
Rubber products	61.80	-1.31	39.51
Plastic products	51.72	1.05	47.23
Glass products	25.87	-26.08	100.21
Non-metallic minerals	68.23	19.57	12.20
Metal products	21.37	-0.30	79.33
Non-electrical machinery ^{b/}	-317.97	241.14	-317.91
Electrical machinery	46.29	-2.15	55.06
Transport equipment	49.80	-0.13	80.27
Miscellaneous manufacture ^{b/}	-122.71	-0.75	23.46

Source: Central Bureau of Statistics, Statistical Abstract, 1985.

a/ Calculated using the formula:

$$\Delta X = M_1 (\Delta D + \Delta W) + M_1 (\Delta E) + M_2 - U_1(Z_1)$$

where X = domestic supply

$$M_1 = X_1/Z_1$$

(D+W) = domestic plus intermediate demand

E = exports

$$M_2 = X_2/Z_2$$

Z = total supply

b/ These are contracting sectors.

In a recent econometric study^{1/} of Kenyan exports it was found that the determinants of export performance for Kenyan products differed markedly when Kenyan exports to OECD countries were compared with Kenyan exports to Africa. Highest revealed comparative advantage values were recorded by products exported to Developing Market Economies (DMEs) which had relatively high capital-intensity. Major manufactured exports to African countries were relatively more skill-intensive and labour-intensive. Although a reduction in industrial concentration increases efficiency and hence export competitiveness, it is the medium-sized firms - precisely the type which is most scarce in Kenya - which is the most successful exporter. The employment-intensity of exports to DMEs and developed countries (DCs) is very different. Kenya could promote exports to the DCs if its main concern is with employment. This would suggest that the export strategy needs to be two-tiered if success is to be achieved on both DME and DC fronts.

1/ S. Lall et al, "Determinants of Manufactured Exports in Kenya and Tanzania", World Development, September 1987, pp. 1219-1224.

Table 2.13: Effective rate of protection in Kenyan manufacturing, 1986
(percentage)

Effective rate of protection	
Food products	111
Beverages and tobacco	38
Textiles and clothing	126
Leather and footwear	80
Paper and paper products	6
Plastics and pharmaceuticals	129
Basic and other chemicals	211
Cement and glass	248
Iron and steel products	312
Electrical and transport	312

Source: World Bank Report, Kenya: Industrial Sector Policies for Investment and Export Growth, Main Report, May 4, 1987.

The 1986 Sessional Paper aims at tripling coffee exports over the period 1985-2000. This would depend on winning a substantial increase in Kenya's share of world coffee exports within the International Coffee Agreement (which is to be reviewed in 1989) as well as on an increase in coffee's share of total farmed land. Even if such increases could be achieved, prospects for further processing are not particularly bright. Processing can, however, be significantly increased with regard to fruits (particularly pineapples, cashew nuts, vegetables and hides and skins). But an expansion in such exports would require removal of barriers to entry in both EC and also developed country markets.

Kenya's mineral resources are also limited - the principal product being soda ash (annual production equalling about 220 tons during 1981-86). Other minerals include limestone products, fluorspar and gold. A large proportion of soda ash and fluorspar is exported and there is also an essentially export oriented gemstone industry. The main mineral-based exports have been petroleum products (main customers being Burundi, the Central African States, Rwanda, Uganda and Zaire). There is only one oil refinery in Kenya (at Mombasa) and production in 1986 was equivalent to about 70 per cent of the level achieved in 1980. Nevertheless in recent years petroleum products have accounted for about two-thirds of the foreign exchange generated by manufactured exports, excluding processed coffee.

The strategy for increasing manufactured exports will have to concentrate on a narrow range of products, with the export drive steered to promising destinations. It will have to be strongly focussed on establishing durable trade links with developing countries particularly within the PTA region. The DC share of Kenyan manufactured exports typically stands at over 70 per cent. Whereas attention is usually focussed on expanding PTA ties it is important to stress that Kenya's oldest developing country partner is India. There are currently about 40 Kenyan-India joint ventures within the manufacturing sector - mainly located in the printing and packaging (Pan African Paper Mills at Webuye is reputed to be East Africa's largest industrial enterprise); engineering, electronics, textile, printing, beverages, sport goods, etc.

Plans for expansion include the establishment of Indian-Kenyan joint ventures in the area of surgical instruments, bandages, antibiotics, sanitary fittings, building hardware, oil extracting machinery, railway equipment and food processing. Despite the existence of these joint ventures and the strong ties between Kenyan Asian owned firms and Indian enterprises Kenyan exports to India remain very limited. Currently Kenyan exports to India are mainly non-manufactured goods and include cashew nuts, wattle extract, pyrethrum and fluospar. Kenya could study the possibility of concluding export agreements as part of joint venture arrangements for opening up the Indian market to Kenyan manufactured exports. In recent years Indian manufacturers have seen Kenya as an important point of access to the PTA region. It is possible to use this opportunity to "trade" market shares and obtain entry into the growing Indian market. Regulation of joint ventures can be an important means for stimulating Kenyan manufactured exports to India. A similar joint venture strategy may be devised to extend economic co-operation with Egypt and Pakistan. Both of these countries are in a position to provide appropriate production technology and may be willing to consider opening up their markets for some Kenyan manufactured exports in return for assured access to the PTA region.

Despite a decline in the value of fixed capital stock in the manufacturing sector capital-intensity remains high and the capacity of the modern enterprise sub-sector to generate employment has not increased. Kenya has a relatively high level of industrial concentration within the modern sector. The lack of medium sized modern manufacturing firms is perhaps the single most significant deficiency in the industrial structure. The absence of such firms makes the diffusion of industrial skills and production technology from the modern to the informal sector very difficult. Although the informal sector has expanded, it can thrive only if subcontracting and technological links can be established between it and the modern firms. Industrial policy must address this task. The growth of the informal sector stresses the domestic demand orientation of manufacturing development.

The government pursued an import substituting industrialization strategy during the 1960s and 1970s and the import to domestic consumption ratio of a very wide range of manufactured products remains high. However, it seems difficult to argue that the process of import-substitution has been "completed" in Kenya. The import substitution that has occurred is in the main limited to food processing, textiles, a small range of chemicals and petroleum based products and cement. There has been little import-substitution in e.g. the metal products, wood products (excluding paper), non-electrical machinery, fertilizers etc. Policies which can stimulate efficient import substitution thus retain their relevance in Kenya. Similar government policies can play an important role in constructing regional economic arrangements and developing appropriate joint venture for expanding the range of Kenyan manufactured exports and the markets to which these exports have access.

3. PROBLEMS AND PROSPECTS OF SELECTED INDUSTRIES

3.1 Food processing

Food products (ISIC 311) accounted for 28.7 per cent MVA in 1986, roughly equal to the share of agriculture (27.6 per cent) in GDP. Kenya's food industry encompasses grain mill products, bakery products, sugar and confectionery, canned vegetables, fish, oils and fats, and meat, dairy products, etc.

The high quality of Kenya coffee is attributed partly to the modern technology which Kenya uses in milling and handling coffee. The Kenya Planters' Co-operative Union (KPCU) has established centralized mills in Nairobi where coffee is dehusked and polished. In vigorously applying modern technology in processing coffee, KPCU has established modern electronic colour and ultra-violet sorting machines which identify, sort and isolate electronically all the discoloured and defective beans. Thus, during the post-independence period Kenya achieved rapid increase in coffee production and processing. However, prospects are overshadowed by market uncertainties. In volume terms the supply of coffee to processing units fell by 13.1 per cent during the second quarter of 1987 (Table 3.1).

Although coffee prices were expected to stage a brief recovery in response to the re-introduction of quota system, the long-term trend in the price of coffee is likely to be stagnant. Demand for coffee on the world market seems to be more responsive to large price fluctuations than to small ones, while the degree of responsiveness of price to oversupply is felt immediately. The government endeavours to increase acreage under coffee by an additional 50,000 hectares by the year 2000. Unless falling production levels in Latin American countries, particularly Brazil, continue, Kenya's planned expansion in coffee production would only add to the glut in the market and prices may not surge upward.

Table 3.1 shows that the supply of tea to processing units increased from 34,124 tonnes in April-June 1986 to 37,592 tonnes during the second quarter of 1987, representing a 10.2 per cent increase. The Kenya Tea Development Authority in 1987 became the world's largest exporter of tea.^{1/} It exported 75 million kg of black tea in 1987, all of which was of high quality. Thirty-nine tea factories were in operation during 1987. A total of 13 tea-processing factories are to be built to cope with the increased tea production. The first four will be financed through loans and equity participation by the European Investment Bank which is providing \$17.2 million and the United Kingdom's Commonwealth Development Corporation which provides \$9.7 million. In addition, the World Bank is likely to provide up to \$30 million. A slight fall in the production of tea in India and Southern Africa resulted in a gentle recovery of tea prices on the world economy to \$1.94 per kg in November 1987, compared with a five-year low of \$1.24 per kg in mid-June 1987. The long-term possibility for sustaining the revival in tea prices seems to be determined by an agreement among the leading producers.

Prior to 1966, Kenya relied on two privately owned sugar factories, one at Miwani and the other at Ramisi in the Coast Province. With the establishment of East African Sugar Industries at Muhoroni in 1966, and Chemeli (the fourth largest factory) at Kisumu District the sugar industry in

1/ Africa Research Bulletin, January 31, 1988.

Kenya underwent a major structural change. The establishment of government-controlled sugar companies and the incorporation of small-scale farmers in cane production resulted in a steady increase in domestic production, leading to self sufficiency in sugar production in 1975.

Table 3.1: Deliveries of agricultural commodities to processing units^{a/}, 1986 and 1987

Commodity	April-June quarter		Percentage change
	1986	1987	
Cash crops (tonnes)			
Coffee	34,209	29,726	-13.1
Tea	34,124	37,592	+10.2
Sisal	9,485	8,685	-8.4
Seed cotton	1,561	1,342	-14.0
Sugar cane	414,289	629,850	+52.0
Food crops (tonnes)			
Maize	17,121	51,555	+201.1
Wheat	8,368	8,053	-3.8
Rice (paddy)	5,703	4,634	-18.7
Beans	6,428	5,038	-21.6
Livestock and livestock products			
Cattle and calves (nos)	1,466	446	-69.6
Pigs (nos)	12,931	9,767	-24.5
Milk ('000 litres)	72,957	84,911	+16.4

Source: Central Bank of Kenya, Quarterly Economic Review, Vol. XIX No. IV, April-June, 1987.

a/ Including supplies to marketing boards.

Growth in domestic sugar production began to suffer a decline in recent years after six years of domestic self-sufficiency. The shortfall led to the importation of some 50,000 tonnes of sugar in 1986, reflecting a gradual slowdown in the country's domestic production. A 52 per cent increase in the quantity of sugar cane supplied to processing units during April-June 1987, compared with the same period in 1986 reflects an exceptional increase in output in consequence of the fair weather which prevailed in the early part of 1987.

Sugar consumption has been increasing steadily as against fluctuating production trends. The government projects that sugar consumption will grow at an average annual rate of 7.07 per cent to the year 2000, while production will grow at a rate of 9.8 per cent per year during the same period - implying a three-fold increase to 1.3 million tonnes. These projections seem to be rather ambitious. While consumption is determined mainly by the population

increase, domestic production is determined by a number of factors including cane yields, sugar extraction rates, land availability and prices paid to farmers and millers. Some farmers are pulling out of sugarcane production as they are increasingly aware of the fact that sugarcane production does not offer them alternative returns as they had initially been promised. Some farmers are even pulling out of their five-year contracts with the companies. Long delays in payments for cane at some factories also discourage farmers. While it is reasonable to expect an increase in output given good weather conditions, the long-term viability of increasing output calls for sound agricultural practices. An efficient financing scheme for sugarcane development and maintenance is also deemed vital to increase domestic production to satisfy the growing domestic demand.

Kenya has a large livestock sector. Although the size of national herd is gradually increasing from the severe draught in 1984, the supply of livestock to processing units did not increase significantly. As shown in Table 3.1 deliveries of cattle and calves and pigs registered two-digit negative growth rate in the second quarter of 1987. However, supply of milk to processing units increased from 72.9 million litres in April-June 1986 to 84.9 million litres in the second quarter of 1987, representing a 16.4 per cent increase. The commercial demand for dairy products is projected to reach almost 800 million litres per year by 1990, which calls for an increase of more than 170 per cent of the present commercial output. Government is currently promoting dairy co-operatives which would be responsible for milk collection, cooling, processing and distribution functions in selected areas. Finland provides assistance to milk production, marketing and processing in twelve districts of Kenya.

3.2 Textiles and garments

Until recently Kenya was a net importer of textile products. In 1977 Kenya embarked on a programme to develop the textile industry. Growth was pretty fast and by the early 1980s the country had installed capacity well over 199 million square metres of fabrics or 30,000 tonnes of yarn a year. By 1986 Kenya's textile industry encompassed 14 fully-integrated mills with an installed capacity of 100 million square metres of woven fabrics and another 14 knitting and weaving units producing some 15 million square metres of cotton and man-made fibres a year. The textiles and garments industry is also one of the biggest employers in the manufacturing sector, employing 19 per cent of wage employment and 22 per cent of all persons engaged in large-scale firms.

Kenya's textile mills process synthetic and natural fibres, producing a wide range of products such as yarns, twines, rope, thread, drills, Khakis, printed cotton and polyester fabrics, woollen suiting materials, curtain materials, upholstery fabrics, carpets, mats, bedsheetings, khangas and towelling. Unlike their counterparts in other countries which concentrate on one stage of the process, many textile mills in Kenya incorporate more than one stage of manufacture. Textile factories like Sunfag Textile mills and Knitwear Mills of Nairobi, East African Garments Factory in Mombasa and Raymond Woollen Mills in Eldoret produce yarn and process right up to the garment stage. Table 3.2 shows that the Kenyan textile industry exported \$6.6 million worth of production in 1985, compared with \$3.5 million in 1977. The 1985 export value exceeded the previous peak export of \$6.1 million in 1980, while gross output in 1985 fell short of the 1980 peak output of \$194.8 million.

Table 3.2: Gross output, exports and imports of textile industry,
1977-1985
 (current \$ million)

	1977	1978	1979	1980	1981	1982	1983	1984	1985
Gross output	109.5	136.4	169.6	198.4	192.8	171.4	149.5	156.1	176.5
Exports ^{a/}	3.5	4.3	4.3	6.1	4.2	2.2	1.8	3.4	6.6
(% of output)	3.2	3.2	2.5	3.1	2.2	1.3	1.2	2.2	3.7
Imports ^{a/}	40.3	41.2	41.2	40.7	23.6	22.4	10.7	16.1	12.7
(% of output)	36.8	30.2	24.3	20.5	12.2	13.1	7.2	10.3	7.2

Source: World Bank, Kenya: Industrial Sector Policies and Investment and Export Growth, May 4, 1987, Report No. 6711-KE.

a/ Trade in textile products excludes garments, and covers SITC numbers 651 through 659.

The industry's progress has much to do with the government's import substitution policy. Despite a ban, on the import of textile fabrics and garments, sizeable quantities are still imported and smuggled into the country. This is partly due to the poor quality of some local products and partly the result of local prices. The high cost of local cotton results in incompetent price structure compared with world market prices. Thus, the textile industry has encountered a number of problems amidst its pretty fast rate of expansion.

While private firms now operate at profitable levels and are considering further expansions in capacity, the public sector mills on the other hand have been performing poorly. Old equipment, poor technical and financial management, poor marketing and overmanning have all contributed to long periods of losses. The private mills differ from each other in terms of the age of equipment used. Some firms use relatively obsolete technology. The use of newer technologies can help to lower cost or produce better products. The productivity of the Kenyan textile manufactures is still low relative to international levels (those achieved by the East Asian countries for example).

Kenyan textile manufacturers produce a wide range of products - thus losing some of the advantages conferred by economies of scale. This reflects the relatively low level of concentration within the textile industry and the close - sometimes organizational - links between individual manufacturers on the one hand and individual wholesalers and retailers on the other. Single manufacturers are expected to supply the entire range of products to wholesaler markets. Rationalization within the industry is thus required to reduce product duplication and to enhance international competitiveness. Such rationalization must be planned in a manner which prevents the demise of small and medium-sized firms. For an increase in concentration within the sector will almost certainly reduce its employment generating potential. The textile industry accounted for over 50 per cent of the expansion of manufacturing employment in the large-and medium-scale sector during 1970-1983.

Rationalization and upgrading of technology used should not be at the expense of the employment-intensity of production within the textile branch - for the growth of unemployment is likely to be the main challenge the Kenyan economy will have to face during the 1990s.

The Kenyan textile industry has largely been unable to keep pace with developments in the international textile technology. New technology will be needed if higher quality, special, blended finish fabrics are to be produced. The lack of suitable labour and engineering skills among the Kenyan work force places a restraint on introducing this new technology. The industry has to a limited extent used expatriate workers to overcome this constraint. The provision of an advanced training programme for indigenous technicians and engineers is necessary if the Kenyan textile industry is not to lag too far behind internationally competitive levels.

High input costs also hinder the textile industry. The high cost of local cotton which sells for up to 60 per cent above the world market prices, unreliable supply, and poor quality control all affect its performance. The high cost of imported inputs (duties imposed range from 20-45 per cent) and high transport costs also affect producers of synthetic textile products in Kenya. If good quality cotton at world market prices can be obtained Kenya can develop an export market in cotton-based textiles. The Kenyan textile industry can find its comparative advantage in lower price products when the more advanced East Asian newly industrializing countries move to higher quality products. With the development of the Kenyan engineering sector, the industry's backward linkages can be increased by obtaining the necessary supplies of spares and equipment from local suppliers.

Kenya is not affected by the developed market economy countries' import quotas imposed on textile exporters because its existing quota are under-utilized. The shift of the economy toward export orientation should encourage the textile industry to improve competitiveness in response to market signals. Product specialization could be encouraged to obtain economies of scale. Mergers could also be encouraged to lower the number of firms and obtain benefits of large-scale production. The government could also help by providing the necessary training facilities for local technicians and engineers. With the appropriate actions the textile industry can be improved and developed to contribute to Kenya's economic development.

The export to total production ratio in both the textile and clothing branches remains low. The argument that the potential for import substitution has been largely exhausted rests upon the assumption that the domestic industry can compete effectively in the domestic market for industrial fabrics. Moreover, rapid population growth virtually ensures the expansion in the domestic demand for textile products. Hence in the foreseeable future it is reasonable to expect that the dominant proportion of textile production will be oriented towards the domestic market. Standardization of production, perseverance of the relatively moderate-sized firm structure and the competitiveness that this implies, and an encouragement of the use of a relatively labour-intensive technology of production should be key elements of the sector strategy geared at the promotion of the domestic demand-oriented industry. This sub-sector also offers considerable scope for the growth of indigenous and small-scale enterprises because links with domestic producers of inputs and distributional units is strong. Technological diffusion and improvisation is also easy and can be further facilitated if manufacturers are encouraged to concentrate on a relatively limited range of standardized products in order to reap the full benefits of economies of scale.

The country's textile strategy should, however, optimally be two-tiered, since there is potential for the development of an export-oriented textile and clothing sector employing a modern and capital-intensive production technology. The success of the export-oriented firms depends crucially on the harmonization of regional investment plans within the textile sector. Both the domestic and the export-oriented branches can gain substantially from regional agreements on the supply of cotton from Egypt and Sudan - this can lead to both a significant reduction in unit material costs and improvement in product quality since many countries within the PTA area are at a roughly similar level of industrial development and the textile industry is seen as a key sub-sector with significant potential comparative advantage. A regional textile industry needs to be evolved which permits an equitable distribution of the benefits realised from a joint exploitation of the economies of scale and which encourages the complementarity of national investment plans. Technical assistance needs to be provided for the development of a regional textile industry in East and Southern Africa.

3.3 Chemical and allied industries

Kenya's chemical and allied industries recorded a fast pace of expansion since independence and to-day they produce a wide range of basic industrial chemicals, fertilizers, pesticides, paints and varnishes, pharmaceuticals, plastics and allied products. Output of other chemicals, including petroleum products, grew by 24.6 per cent in the mid-1980s.

The chemical industry in Kenya is largely dependent on imported inputs, with the exception of soda ash, wattle extract, pyrethrum and fluorpar. Most of the spare parts for the industrial units, which are generally capital-intensive, are imported from abroad. According to the Kenya Association of Manufacturers (KAM)^{1/}, there has been insufficient research and development to develop locally based alternatives. Despite high import duties on finished products competition from imported chemicals is posing problems to local producers.

The local manufacturers of pharmaceuticals are capable of supplying up to 60 per cent of the country's needs for drugs and medicines, with the exceptions of injectable and other specific drugs which require specialized production technologies and facilities. In practice, the firms' capacity utilization rate is far below their installed capacity. The local producers seem to favour more government-purchase of locally-produced drugs even if local drugs cost twice as much as imported ones. More government purchase of locally produced drugs would help increase the capacity utilization rate which will in turn lead to further employment creation and multiplier effects through backward linkages.

There has been a spur in quality consciousness since the removal of protection granted to this industry. The growth in the number of firms has increased competition particularly in the area of branded products. Competition also helps keep up quality standards.

1/ E.A. Report on Trade and Industry, "KAM Sector Reports: Chemicals and Pharmaceuticals", February 1986.

The number of firms in the plastics industry grew from 1 in 1946 to about 60 in 1983, reflecting an expansion in the process applied in the industry. Raw material needs in the manufacture of plastics and rubber-related products are largely satisfied through imports, mainly from Europe, America and the Middle East. The absence of a centrally organized purchasing agency has created numerous loopholes. The government could initiate a major step towards monitoring and undertaking the importation of inputs needed by the industry. While the consumption of plastics is fairly low, the import bill continues to be rising. Kenya may explore the potential for reducing the import bill for the inputs by producing raw materials for the plastics industry locally. The plastics and rubber industries are also considerably affected by capacity under-utilization. Other factors afflicting the industry include seasonal and insufficient demand and delays in acquisition of raw materials. Overall, the plastics industry is set to expand with the introduction of new areas of application including recycling of plastics waste.

3.4 Leather products

According to research findings by the Kenya Industrial Research and Development Institute (KIRDI), around 80 per cent of Kenya's annual production of hides and skin was exported raw in 1986.^{1/} This reveals a missed opportunity in industrial potential.

While a number of tanneries have been experiencing serious financial problems, a new leather processing factory, Leather Industries of Kenya Ltd., started operating in October 1986. This new leather factory stand as a striking example of the effective combination of local responses, foreign technology, expertise and finance. The new factory has been established to convert locally available raw hides into high quality finished leather, with a view to sharpening the industry's competitive edge in international markets.

The new factory is designed to process 1,000 hides per day to produce three quarters of a million square metres of finished leather per year. At full capacity utilization, export sales are expected to reach KSh 1,000 million over a period of 10 years. Technologically advanced chemical and process control equipment and tools are to be supplemented by skilled personnel in tanning and finishing of leather. The quality of the final product largely depends on the knowledge and skill of the experienced tanner, and hence equal recognition has been given to the importance of a skilled workforce. The factory is expected to generate skilled, semi-skilled and unskilled employment for approximately 400 people at an investment cost per job of around KSh 274,000. The new factory has also demised a manpower development programme with a view to ensuring the future availability of a well qualified workforce.

3.5 Cement manufacturing

The manufacture of cement in Kenya began in the 1950s with the setting up of two cement manufacturing companies with both government and foreign participation. There has been limited export markets for Kenya's cement output. The development of the industry has also been hampered by the relatively low domestic per capita cement consumption. Kenyan per capita cement consumption is 30 kg compared with 100 kg in Togo, 60 kg in Nigeria and 170 kg in the Côte d'Ivoire. The two cement producers differ both in the methods of manufacture and in the markets they supply.

1/ E.A. Report on Trade and Industry, October 1986.

The older of the two companies is Bamburi Portland Cement Company Ltd. (BPCC) which was formed in 1954 with a majority foreign holding of 73.2 per cent, a government stake of 15.8 per cent and local investors contributing 11 per cent of the investment. The firm uses the more efficient dry production process. Fuel costs are also relatively lower with 65 per cent of the fuel used being the cheaper coal. Fifty-six per cent of the company's output is exported with the rest being sold locally. Exports are mainly to Indian Ocean countries and the Middle East. Demand in the Middle East markets was badly affected with cutbacks in their construction programmes after the fall in the price of oil. Lower demand and increased competition in export markets have affected BPCC's export performance and led to the recent poor performance. The company carried financial losses in both 1984 and 1985 and as a result, was unable to pay a dividend to shareholders. Some difficulty has also been encountered in meeting short-term debt service commitments. In order to compensate for lower exports the company is trying to promote more sales in its domestic market. Recent implementation of plant modernization and conversion to coal have made the firm a more cost efficient producer with unit costs of only \$48.66 compared with the other firms \$68.72.

East African Portland Cement Company Ltd (EAPC) is the other cement manufacturer in Kenya, formed in 1958. At present the government holds the majority (50 per cent) stake, with 28 per cent held by investors from the United Kingdom and Switzerland and 22 per cent by local private investors. The firm is largely domestic demand oriented with 96 per cent of its sales being in domestic markets. The plant uses the less efficient wet process methods and the more expensive fuel oils in the production process. There are plans to convert to the dry production process and to the use of coal-fired production. The conversion will also mean an increase in capacity. Both firms are currently operating at relatively high levels of capacity utilization and will need further investments if production is to be increased. EACP has a capacity utilization rate of 88 per cent and BPCC a rate of 75 per cent. Financially EAPC has performed relatively better having recorded profits in recent years. Because of its strong financial position the company has been able to undertake much needed plant improvements and has also paid off all short-term debts.

Table 3.3 shows the marked increase in the domestic demand for cement during 1986 and 1987. The sustained boom in the Kenyan tourist industry may lead to an increase in domestic demand for cement. While demand for the product seems to have somewhat improved, both companies need to consider means of lowering the cost of production and improving overall efficiency. The EAPC conversion to the dry process should mean the utilization of more domestic inputs in the production process increasing the level of backward linkages. Both companies have also implemented training programmes to further improve the technical skills of the work force and the managerial skills. The performance of the industry in the medium-term can be further improved with a comprehensive government support package.

The government by its direct investments seems to recognize the importance of a cement sub-sector in the early stages of industrial development. The government also attempts to influence the industry through the use of price controls. In this role the government faces a conflict of interest. It is a major consumer of cement and would benefit from lower prices. In addition it is a major shareholder in both firms and would like the benefits of a price increase. The government's position on the industry has been as unclear as its position on price controls. In an economy that provides considerable government assistance to industry, it is important that

government policy is clearly specified. With both firms soon being major users of coal reductions in the import duties on coal can assist both firms. In developing an overall strategy for the cement industry the government could consider the options presented in the 1983 NORCEM (a Norwegian consulting company) study on the industry. Both companies would benefit from such a comprehensive rationalized strategy as they would be clear on government policy regarding price controls, export compensation and import duties on inputs that would affect their performance. A consistent strategy will help the firms exploit the fact that they are relatively large-scale producers, make use of the boom in the tourist industry and plan for increasing exports particularly through co-operation with other FTA members.

Table 3.3: Domestic demand sales, 1986 and 1987
(tonnes)

	1986	1987	Percentage change
March quarter	174,158	208,649	+19.8
June quarter	189,986	215,471	+13.4
September quarter	201,597	242,531	+20.3

Source: Kenya Cement Marketing Board.

3.6 Engineering products and electronics

Metal products and basic metals accounted for 8.6 per cent of MVA in 1976. By 1985 this share had fallen to about 4.9 per cent. The basic metals industry in Kenya mainly produces steel melting and hot rolling, wire and wire products, galvanized and cold rolled steel products and pipes. The basic metal branch in particular are currently operating at very low levels of capacity utilization. Over the period 1970-1985 the basic metal branch contracted at an average annual rate of 2.7 per cent. Despite this fall in output the number of medium and large enterprises^{1/} in the basic metals sector increased from 35 in 1976 to 61 in 1985. Total employment almost doubled between 1976-1981 but fell by 15 per cent during 1981-1985 when it stood at about 9,600. Over 1978-1985 productivity levels declined by 43.7 per cent within the sector.

The first rolling and smelting plant, Kenya United Steel Company (KUSCO), is now 20 years old and remains the largest such unit supplying about half the domestic market. Capacity utilization has remained low due to insufficient scrap imports. The company's continuous casting facilities are under-utilized because of lack of demand. The company intends to enter into the ship breaking business to increase the supply of local scrap.

Besides KUSCO, there are eleven other units possessing rolling and smelting facilities. Although capacity utilization rates range between 20 to 48 per cent, projects within the industry exist due to the high level of protection - tariff rates on individual products range widely and have been

^{1/} Those with more than 50 employees each.

described as "haphazard". Excess capacity also characterizes the wire products which consists of only ten producer units and are mainly engaged in the production of nails. The galvanized and cold rolled products market is dominated by Malati Rolling Mills with a capacity of about 120,000 per annum of cold rolled sheets. Kenya's needs of these products are estimated at 60,000 tons - hence excess capacity is inevitable.

Under-utilization of capacity also exists in the pipes producing branch which includes only four firms. They manufacture galvanized water pipes and tubes used in the production of furniture. Difficulties in obtaining raw material have constrained capacity utilization.

The basic metals industry is dominated by two Kenyan Asian groups (Chandria and Bhattessa). Foreign equity participation is small although there is a strong dependence on expatriate technical expertise and imported technology. Over the years, however, the major steel manufacturers have significantly increased their expertise in engineering, commissioning, installing and procuring steel-related technologies. Expansion of capacity has thus not been haphazard and in general imported technology has been in accordance with local needs and aspirations. Ability to handle the complicated technology imports has also been continuously upgraded. There has been significant emphasis placed on the extension of on-the-job and on overseas training programmes. Technological adoption is becoming increasingly common. There is, however, a need to improve quality control. This partly reflects difficulties in recruiting and retaining skilled technical and engineering staff within the industry. Expansion of the industry requires a careful harmonization of regional investment plans and an increase in the production of local scrap - the early establishment of a local ship-breaking industry should be seriously considered. Expansion of capacity based on increased primary imports can be feasible only if the imports are obtained within the context of regional investment arrangements. Regional arrangements are particularly desirable because existing Kenyan plants are too small to reap the full benefits of scale but the domestic market is unlikely to grow sufficiently to justify a significant expansion of their size. Without effective regional integration, the prospects for increasing steel exports from Kenya are relatively modest.

Kenya's metal product industry is also domestic demand oriented. In 1980 there were over a hundred engineering workshops, 20 foundries and a large number of machine shops attached to large factories. They were mainly established during the 1960s phase of import substitution industrialization. The largest workshops belong to Kenyan railways. The firms produce cutlery, hand tools, furniture, reconditioned motors and vessels for industrial use. Technical skill requirements are low and production equipment is old and unsophisticated. Designs are limited and quality control is virtually non-existent. Firms have generally not done well during the recession of the early 1980s.

There exist high levels of capacity under-utilization. In 1983 metal producers and foundries used only 23 per cent of installed capacity.^{1/} This is largely explained by the high import content of gross output within most of these firms. The costs of maintaining large import inventories has

1/ P. Coughlin, Converting Crisis to Boom for Kenya Foundries, University of Nairobi, 1986, p. 73.

been very high. Lack of control on machinery imports has created a scarcity of spare parts. Also the wide range of products imported means that the domestic production of components and spares remains a difficult task. Since the average producer of metal products is small he cannot reap the benefits from an efficient exploitation of the economies of scale and he cannot afford the technical upgrading required to provide a wide range of good quality products.

An important sub-sector of the metal products industry has been doing relatively well during the 1980s. This consists of firms producing agricultural hand tools. Products include locks, padlocks and pangas and production is undertaken not only for Kenya but also for neighbouring markets. Production technology employed by these firms is old and inefficient, however.

In general, Kenyan metal producers are relatively efficient producers of products which do not require quality control or standardization. Technological upgrading has remained very limited within the sector, however. This is mainly due to the very weak links with other major manufacturing interests - a very large proportion of equipment used is imported.

The electronics industry caters mostly to the domestic market. Radios are the biggest line of production, ranging from the pocket type to more elaborate products. The market for radios of all sorts is considered to be between 150,000 and 200,000 units a year.^{1/} The market for cassettes and radio cassettes, the next biggest product line, is estimated to be around 50,000 units a year, while the demand for TVs, both black and white, and colour, are estimated between 7,000 and 15,000 units a year.^{1/} Other locally assembled products include a wide range of office and hotel equipment and products. Although the manufacturers have trained a sizeable pool of technicians, more electronics technicians and engineers are needed as the number of applications based on electronics increases. In recent years there has been a surge of imports of completely assembled products, competing with those locally manufactured. The electronics industry has a case for protection from imports of finished products and smuggled items.

3.7 Motor assembly and autoparts manufacture

The motor assembly industry in Kenya has undergone a significant transformation from an industry more oriented to importing complete built-up vehicles and spare parts to one meeting a fairly large proportion of the local market needs with locally assembled vehicles and spare parts. The setting up of assembly plants in the mid-1970s represented considerable investment. Leyland Kenya Ltd., 35 per cent owned by the government, was the first, to start up. Its installed capacity is around 4,000 units a year. Shortly after Leyland Kenya, General Motors Kenya Ltd., with 51 per cent government equity participation, came on stream, with a capacity of 4,000 units a year. This was followed by the setting up of several other assembly plants. The assembly plants have installed capacity of around 16,000 units on single shift. Stimulated by local assembly units, the auxiliary and component manufacturing sub-sector has grown considerably.

The expansion of the motor industry has led to considerable employment creation. In 1986 the assemblers employed around 1,300 workers, while the auxiliary firms employed more than 30,000 persons in the same year. The industry has also helped in the development of technical skills.

^{1/} E.A. Report on Trade and Industry, January 1986, p. 12.

With only about 10,000 units built in Kenya a year, assembly plant capacity utilization stood at 62 per cent in 1986. With high investment costs coupled with high production overheads, the price of the finished product is prohibitively high. Greater volume of output is required, with a view to reducing the production overheads per unit. According to an estimate^{1/} an assembly plant must produce half a million units a year and produce at least 50 per cent of all components near the assembly plant but the local market does not augur well for such an expansion in the motor industry. The market for motor vehicles and spares is not large. In fact, it shrank drastically in terms of vehicle registration from 18,000 in 1980 to just over 6,000 in 1983, and recovered in 1985. The motor industry in Kenya also suffers from the uneconomical proliferation of makes and models. Some industry analysts feel that rationalization of models and makes could help trim some costs. The government imposed high duty and sales tax on completely built-up vehicles, with a view to discouraging imports, but these measures failed to curtail imports significantly as ready-made alternatives continued to be more attractive to many customers. The motor industry has not done very well in export markets mainly because the Kenyan product tends to be expensive. Possibilities for further expansion of the motor industry are to be carefully studied and evaluated in the context of the above constraints that prevent the industry from getting into the top gear.

3.8 Small-scale industry

The government's industrial development strategy has placed strong emphasis on the expansion of small-scale enterprises in both the formal and informal manufacturing sectors. The rapid expansion of small-scale manufacturing enterprises is seen as a key element in the government's employment strategy. Despite the rapid growth the informal sector's share of manufacturing employment was probably below 10 per cent in 1985 - lower than in Tanzania, Nigeria and Sierra Leone. The typical informal manufacturing enterprise is extremely small. It is rare for such units to employ even a single wage labourer. Formal sector small-scale manufacturing enterprises (those employing less than ten wage earners) have stagnated. Their share of MVA has declined consistently for over a decade and less than a 100 modern small-scale manufacturing enterprises have been registered over the period 1976-1986. This relative paucity of small-scale enterprises represents the most significant weakness of the Kenyan manufacturing sector, for such enterprises are a necessary source for the domestic production of inputs used by large-scale industry and provide an essential base for the identification and training of the country's indigenous entrepreneurial talent. The encouragement of the informal sector can have optimum effect if subcontracting links between small-scale and large-scale enterprises are rapidly built and scope is provided for increasing the diffusion of production technology and marketing and organizational links within the sector. The very small size of informal manufacturing enterprises represents a serious constraint on increasing the internal integration of the Kenyan manufacturing sector and reducing its dependence on both imported inputs and expatriate technical expertise.

Perhaps the single most numerous element within the informal manufacturing sub-sector is the rural enterprise. The Sessional Paper 1986 estimated that a total of 1.3 million persons were employed in non-farm rural enterprises. About 95 per cent of such enterprises represent household production units. The exact number or proportion of rural manufacturing units

1/ E.A. Report on Trade and Industry, January 1986, p. 12.

remains unknown. Of the 51,374 rural enterprises enumerated in trading centres, about 6,700 enterprises were classified as manufacturing units. It has been estimated that manufacturing employment provides about 25 per cent of the non-farm income in the rural sector. The share of non-farm income in total rural income is about 10 per cent. Thus only about 2.5 per cent of total rural incomes comes from manufacturing activity. Manufacturing activity within the rural sector is thus very modest and is mainly undertaken by the relatively more prosperous rural households who can afford to take time off from subsistence farming. Major products produced include beer, charcoal, wood products, weaving and knitting, sisal processing, pottery, tobacco, tailoring, tanning, metal tools and utensils. Non-farm rural units are concentrated in the Eastern provinces. Future growth prospects for the rural manufacturing enterprises depend crucially upon the growth of farm income on the one hand and an improvement in the pattern of rural income distribution on the other. The rural manufacturing enterprises produce simple commodities mainly consumed by poor and middle peasant households. It is growth in the the income of these activities that will determine the growth prospects of rural manufacturing enterprises in Kenya.

Small-scale urban manufacturing enterprises are mainly involved in the production of clothing, wood working and metal products. They represent the second most numerous category of small-scale units - accounting for about 17 per cent of informal sector employment. The share of the leading sub-sector - trading enterprises - stands at 55 per cent. If repair establishments are included within the manufacturing sub-sector (the distinction between the two is usually an arbitrary one), the combined share of informal sector employment was 25 per cent. Whereas the trading sector's share of informal sector employment has fallen significantly manufacturing has maintained its share. The manufacturing informal sector has thus not contracted during the recession - indeed as noted earlier it has grown at thrice the rate of the large-scale private manufacturing sub-sector. There are some indications that urban based informal and small-scale enterprises have taken up some of the slack as the large private manufacturing firms suffered from the depression of the early 1980s. Urban informal and small-scale manufacturing enterprises have grown more rapidly than rural based ones - the latter declined during the drought of 1983-84 while the former expanded rapidly during this period as rural immigrants flooded into the shanty towns. The share of urban manufacturing enterprises in total non-household informal sector employment has risen from about 69 per cent in 1978 to over 75 per cent in 1985. About 50 per cent of the total employment generated by the informal enterprises is concentrated in Nairobi and Mombasa. It has been shown that the size of the informal urban sector is positively related to the size of the urban population and the size of the wage earning labour force within that location. However, the rate of small-scale employment per 1,000 residents is highest in the smaller towns. Informal urban enterprises can flourish in a relatively under-developed infrastructural environment and the indirect employment effect of major industrial investment is highest in the smaller towns. These findings are in line with the expectations of the government's industrial decentralization outlined in the 1986 Sessional Paper. The greater success in the smaller town once again indicates the character of Kenyan small-scale manufacturing enterprises. They produce commodities that are purchased mainly by low income groups resident in the smaller towns. Since this income has grown relatively faster than the income of the rural poor, urban small-scale manufacturing enterprises have done significantly better than their rural counterparts. The expansion of the sector has not been accompanied by informal sector remuneration, however - there is evidence that during 1980-85 both the wage rates and entrepreneurial earnings have declined significantly.

Table 3.4: Distribution of informal sector employment by sub-sector, 1974, 1980 and 1985
(percentages)

	1974	1980	1985
Manufacturing	14.3	14.8	17.1
Repair	11.3	10.1	8.1
Sub-total	25.6	24.9	25.2
Other services	4.7	3.8	5.4
Trade	66.4	56.0	55.8
Catering	1.7	14.1	11.8
Construction and transportation	1.6	1.4	1.7

Source: Central Bureau of Statistics.

As noted earlier government policy has actively encouraged small-sector development since 1980. Surveillance has decreased and a series of incentives - exemptions from income and sales taxes and the application of safety standards - have been provided. Private voluntary organizations have provided financial and auxiliary support for the development of small-scale enterprises. Payment defaults have seriously constrained the extension of credit facilities to the sector however and credit facilities are available to a very small proportion of the small-scale informal enterprises. The continuing uncertainties of the commercial banking and financial system have made a major extension of credit facilities to the informal sector more and more problematic.

Among the small-scale enterprises - which numbered about 18,000 in 1984 - there are 716 firms with 10 to 50 employees each. These "medium"-sized enterprises are mainly located in the food processing, saw milling, furniture, printing and sheet metal product branches. A small number of medium-sized enterprises produce steel sinks, bicycles, spark plugs and milk churns. Table 3.5 shows that these enterprises have grown at an annual rate of about 4 per cent per annum - which is less than half the rate of growth recorded by the informal manufacturing enterprise sector. Most of the growth has remained concentrated in the 20-50 employee sub-category of medium-sized firms within the fabricated metals, machine parts and other non-traditional areas. There is some evidence that there is some technological adaptation within the sector. However, technical upgrading remains rare and only a very small proportion of medium firms experience sustained growth in output or sales. The inability to establish a thriving medium-sized manufacturing sector remains the single most important constraint on the development of subcontracting and on the increase in the domestic resource content of manufacturing output in Kenya. Moreover links between the medium-sized and the small formal and informal manufacturing enterprises are very few. Medium-sized enterprises, unlike informal manufacturing units are heavily dependent on imported inputs and the depression of the early 1980s affected them severely.

Table 3.5: Establishments employing 10-50 persons, 1974 and 1984

	1974		1984	
	10-19 employees	20-50 employees	10-19 employees	20-50 employees
Dairy products	4	4	5	5
Grain milling	9	4	3	6
Baking	14	16	18	7
Other food	25	34	19	31
Saw milling	16	24	15	28
Wooden furniture	26	19	15	31
Printing	38	37	38	37
Fabricated metal	23	23	35	47
Machine products	43	59	44	74
Other	<u>91</u>	<u>97</u>	<u>106</u>	<u>152</u>
Total	289	317	298	418

Source: Annual Abstract of Statistics, various issues.

The government has remained concerned with the rapid development of the medium-sized sector. Loans worth \$32 million have been extended to this sector over a decade. But payment defaults have been common and financial collapse is not rare. Financial assistance needs to be supplemented with technical support which can enhance entrepreneurial performance. Improving economic efficiency within the sector depends critically upon strengthening its backward and forward linkages with both informal and large-scale manufacturing enterprises and upon reducing its very high level of import dependence.

4. STRATEGIES, POLICIES, PLANS AND INSTITUTIONS FOR INDUSTRIAL DEVELOPMENT

4.1 Strategies and plans

During the first ten years since independence in 1964 an import substitution policy was the key instrument influencing the process of industrialization in Kenya. The country's Second Development Plan (1970-1974), for instance, reiterated the belief that the country has not yet exhausted all opportunities for import-substituting industries. The government adopted measures such as tariff protection and quantitative restrictions tailored to protect domestic enterprises from international competition. The incidence of such protection turned out to be incompatible with the overall development objectives aiming at increasing exports, local value added and employment opportunities.

Kenya's Third Development Plan (1974-1978) stated that "sustained industrialization depends on the ability of manufacturing enterprises to maintain internationally competitive cost and qualities. While temporary protection may be required by industries with high initial costs and unexperienced personnel, those that would need permanent protection are a drain on the economy. Enterprises that can compete only within a protected market do not have much scope for expansion."^{1/}

The Fourth Development Plan (1979-1983) proposed to pursue the following objectives in the manufacturing sector:

- to reduce the foreign content of manufactured goods;
- to accord priority to the development of industries having local comparative advantage, i.e., industries using local resources and technology;
- to generate more employment opportunities through appropriate choice of technology and promotion of small-scale rural and urban informal manufacturing activities;
- to provide financial and management assistance to "Kenyanization" programmes;
- to diversify industrial activities;
- to reduce protective barriers enjoyed by industries under the pretext of "infant industry" argument;
- to stimulate exports among the implementation of Export Credit Guarantee Scheme, establishment of more export houses and through the rationalization of export incentives; and
- to encourage greater dispersal of industries to smaller urban and rural areas through such measures as:
 - (a) promotion of foot-loose industries in smaller towns;
 - (b) promotion of resource-based industries in rural areas;

^{1/} Government of Kenya, Development Plan 1974-1978, 1974, p. 280.

- (c) differential investment allowance on a sliding scale depending on the size and the location of industries;
- (d) provision of more and better infrastructural facilities such as roads, water, electricity and housing in rural areas; and
- (e) better extension services to industries in rural areas.

Kenya's Fifth National Development Plan covering the period 1984-1988 was drawn up within the context of a major stabilization programme supported by a series of IMF stand-by arrangements beginning in the 1980s. The stabilization programme incorporated the typical IMF measures - "crawling peg" devaluation, import liberalization, increases in agricultural producer prices, curtailment of public expenditure, upgrading of the interest rate structure, tightening of monetary policy and a greater financial surveillance of public enterprises. The Fifth Plan was therefore much more cautious and moderate than its predecessor - it aimed at an average annual GDP growth of 4.9 per cent as against 6.3 per cent in the Fourth Plan. Total investment in the manufacturing sector was expected to reach KSh 771.9 million over the 1984-1988 period. Its contribution to GDP growth was expected to be of the order of 15.9 per cent, second only to that of agriculture (agriculture's share in total investment was however only KSh 572.5 million). The manufacturing sector was expected to grow at an average annual rate 6.5 per cent, with the highest growth rates being registered in leather, pottery and glass, textiles, non-electrical machinery, clothing and furniture. The share of consumer goods industries in manufacturing GDP was expected to increase from 45.3 per cent in 1983 to 46.5 per cent in 1988 and that of intermediate industries to fall from 31.8 per cent to 30.4 per cent, while the share of capital goods industries was planned to rise from 22.9 per cent to 23 per cent over this period.^{1/} The Plan thus envisages comparatively little structural change within the manufacturing sector.

The Plan outlined the following order of priorities for guiding development financing agencies and the Import Licensing Authority in industrial financial decisions:

- a. resource-based export-oriented industries;
- b. export-based industries using imported raw materials provided net value added is in excess of 25 per cent;
- c. modernization of existing enterprises;
- d. industries required to support developments in other sectors of the economy;
- e. producer goods industries needed to reduce the import liability of existing industries; and
- f. domestic resource based import-substituting industries.

The key statement of government objectives and strategy remains the Sessional Paper^{2/} of 1986 placed before the Kenyan Parliament. The strategy outlined in the Paper for the period 1986-2000 is summarized as follows:

1/ Consumer goods industries defined as food manufactures, beverages and tobacco, textiles and leather; intermediate goods industries as wood products, paper products, chemicals and non-metallic minerals; and capital goods as metals and engineering goods industries. Government of Kenya, Fifth Development Plan 1984-1988, Nairobi, 1984.

2/ Government of Kenya, Sessional Paper No. 1 on Economic Management for Renewed Growth, Nairobi, 1986, pp. 1-7.

- i. Economic growth is the primary concern of economic policy. It is to be accelerated to average 5.6 per cent a year to end of the century.
- ii. Agriculture remains the leading sector in stimulating economic growth and job creation.
- iii. The great majority of new jobs be created, not in the cities or in large industry, but on farms and in small-scale industries and services, both rural and urban.
- iv. Most investment be directed to create a prosperous agriculture, to build rural market centres and towns, and otherwise to support informal sector growth.
- v. Investment in modern industry must be highly productive, capable of employing workers at low cost and capable of competing in world markets with modest protection or subsidy.
- vi. Government policies and budget allocations be moved decisively, and soon, in these directions.^{1/}

Key features of the industrial strategy outlined is the strengthening of rural-urban linkages, the encouragement of small informal enterprises and efforts to increase the employment impact of manufacturing growth in Kenya. To achieve these objectives, the Paper endorses the concept of a "direct focus" as a development unit. Forty-one districts (including metropolitan Nairobi) have been identified and the decentralization of industrial policy is to be speeded up. The key policy intervention is identified as the strengthening of the micro-enterprise-based informal manufacturing and service sector which is now regarded as a key source of employment growth. While wage employment in the modern sector grew by 5 per cent in 1985, informal sector employment has been growing at roughly twice this rate in that year. The informal sector, which is defined by the Sessional Paper to include the self-employed and very small-scale firms with fewer than ten employees in industry and services and located in both town and country,^{2/} is expected to increase its total employment from 200,000 in 1984 to 400,000 by the turn of the century. Government support will be aimed at expanding entrepreneurial training, tapping of small individual and family savings for investment, creation of industrial skills at low cost and strengthening the role of the informal sector as a source of agricultural inputs. The expansion of the sector is expected to lead to a substantial conservation of foreign exchange, production of suitable consumer goods for low income groups and a reduction of the very wide income differentials characteristic of Kenya.

The government continued to be committed to a policy of mixed economy in which both the private and public sectors play their respective roles in fostering the process of industrialization. A range of initiatives have been outlined in the Plan and in the Sessional Paper to stimulate private investment. Both documents make relatively little mention of public sector manufacturing investment. The share of the public sector within manufacturing remains large but there has been a virtual stagnation of new public investment in manufacturing. Preliminary estimates indicate that the investment target

1/ Ibid, pp. 1-7.

2/ Ibid, p. iii.

of KSh 771.9 million for the manufacturing sector specified by the Plan is unlikely to be fulfilled during this period.^{1/} A total of 39,400 jobs (6.3 per cent of which were to be in large-scale enterprises) was expected to be generated by this investment. The strategy of the Sessional Plan envisages a significant expansion of manufacturing employment particularly within the micro-enterprise sector. A number of policy initiatives have been taken to facilitate the achievement of the objectives outlined in the industrial strategy.

Both the Plan and the Sessional Paper place emphasis on restructuring public sector investment. Emphasis is placed on balancing and modernizing existing units, improving capacity to export and through the concentration on the "development district focus" to increase the regional dispersion of industrial units on the one hand and to strengthen industry-agriculture linkages on the other. The mini-coffee boom of 1986 led to the adoption of a cautiously expansionist and stimulating programme by the government. Public expenditure increased significantly during 1986 and an expansion of public sector investment in manufacturing seemed possible for the remaining duration (1986-1988) of the Fifth Plan. However the earlier than expected collapse of coffee prices (in 1987) makes it likely that the industrial strategy outlined in the Plan and the Sessional Paper - with its emphasis on expansion of exports, lowering of capital-intensity and encouragement of informal micro-enterprises - will prove more relevant in 1988-1990 than it did in 1986 as far as public sector investment is concerned.

4.2. Instruments of industrial policy

A. Financial policies

The Kenyan financial system consists of 24 commercial banks and about 45 non-bank financial institutions governed by the Central Bank of Kenya. The financial crisis of 1985 and 1986 led to mergers within the financial intermediaries sub-sector. There are six development finance corporations, two savings banks, over 40 insurance companies and an active stock exchange. The ratio of money and quasi money (M_2) to GNP is about 30 per cent (average over the period 1980 to 1986). Liquid liabilities of the financial system as a proportion of GNP increased from 36 per cent in 1983 to 44 per cent in 1986. Financial development in Kenya is significantly ahead of other countries in the Eastern and Central African regions.

The Central Bank uses credit squeeze as well as moral persuasion to control the expansion of credit. A more vigorous surveillance and control policy was announced in the 1987/88 budget. Reliance is also placed on banks and other institutions complying with guidelines on the allocation of credit to priority sectors. Interest rate policies have been increasingly relied upon during the 1980s. Real interest rates are significantly positive but the spread, the minimum and maximum permissible rates is small. The issuance of treasury bonds is aimed at increasing the flexibility of the interest rate structure.

Industrial finance is provided by commercial banks and non-bank intermediaries (mainly concerned with short-term credit), development finance companies (which mainly provide long-term loans denominated in foreign

^{1/} Eighty per cent of the investment was to be in the large-scale sector. Government of Kenya, Fifth Development Plan, 1984-1988, 1988, p. 201.

currencies) and the stock market. The decline in manufacturing investment during the 1980s has meant that financial constraints have not been significant for many firms. The high level of industrial concentration has meant that the largest manufacturing enterprises have developed a close relationship with the commercial banks. The commercial banks usually follow conservative policies and are rarely the source of long-term credit. The ability of the non-bank institutions to lend to industry has declined since 1985. The Banking (Amendment) Act of 1985 and other measures announced in the budgets of 1986/87 and 1987/88 have reduced the intermediaries' capacity to expand credit.

The development financial institutions' financial position is described as weak, due to a high level of arrears, excessive administrative expenses, and weak procedures in project selection, appraisal and supervision. The Industrial Development Bank (IDB), the Development Finance Company of Kenya (DFCK) and Kenya Industrial Estate (KIE) have very high levels - approaching 90 per cent of IDB's total loans. Rates of return on loans and other investment of industrial banks rarely exceed 4 per cent in a typical year. Hence these institutions' financial resources are severely constrained and they are unlikely to be sources of major new long-term loans in the near future. Government has become reluctant to increase the supply of additional funds to these institutions and a major restructuring of the industrial development finance sector is under active consideration. This is particularly required to increase the provision of development finance to small, medium-sized and micro-enterprises in Kenya.

B. Price and income policy

The Price Control Act of 1956 (as revised in subsequent years) provides the framework for governmental price regulation. The number of controlled commodities has declined consistently in recent years. Procedures for price revisions have also been simplified although some anomalies remain: Kenya Association of Manufacturers (KAM) believes that there is a need to shorten the time taken to reach decision on price adjustment allocation and to more effectively take into account changes in input structures in determining product prices.^{1/} The effectiveness of the administration of the price control system needs to be improved. Most small producers and virtually all micro-enterprises escape price regulations. The very high level of monopolization of the manufacturing sector means that it is desirable to maintain a system capable of effectively monitoring and controlling the price structure in manufacturing. A Department of Monopoly and Price Control has been created to achieve this end. The determination of cost order is to be revised and there is to be more from a cost based to an import parity basis for considering price re-evaluation.

The government has been pursuing an active income policy since the early 1970s. Average real wages in the large-scale manufacturing sector have fallen drastically. The average real manufacturing wage in 1984 was about the same as in 1964 - it was 42 per cent lower than the 1975 level when Kenya embarked on the restructuring programmes. The average real wage has declined by 20 per cent in 1981-1983. Wage rates have fallen while Kenya's average per capita income and the skill of labour force has increased.^{2/} This means a

1/ E.A. Report on Trade and Industry, Nairobi, January 1988.

2/ J. Vandermortele, Wage Policy in Kenya, University of Nairobi, 1985.

significant deterioration of the pattern of income distribution. The cost of living index of the poorest income group in Nairobi has gone up faster than that of the middle-income and upper-income groups in terms of all commodities. The decline in real wages is thus not compensated by movements in commodity prices within the domestic economy.

The Kenyan average wage is currently about 50 per cent of the wage rate in Zimbabwe. There is no evidence that wage growth has been a major factor inhibiting profitability in the manufacturing sector: this is largely a result of the low and declining level of capital productivity. Falling real wages have moreover constrained domestic demand resulting in the emergence of excess capacity within the manufacturing sector. Without an increase in income of the lower-income groups, the small-scale and micro manufacturing sector cannot expect to prosper. It produces mainly for them. Encouragement of small-scale enterprise thus requires an improvement in the pattern of income distribution and a reform of the industrial relations and bargaining system which has proved ineffective in checking such a major erosion of real wage rates in Kenya.

C. Exchange rate management

The Kenyan shilling is pegged to the Special Drawing Rights (SDR). During 1975-1985 the government was committed to maintaining the real value of the shilling. Differentials in the Kenyan rate of inflation and that of the major trading partners have led to several "crashing peg devaluations" since 1982 - when the shilling was devalued by 15 per cent. Because of the relatively low level of inflation Kenya is under less pressure to devalue than most other African clients of the IMF.

Foreign exchange control and "rationing" is maintained and a parallel market has emerged. There is typically a 10 to 15 per cent differential in the government and on illegal exchange rate. The parallel market is the main mechanism for capital flight which assumed alarming proportions during 1982-1983 but has declined subsequently.

Since early-1986, the Central Bank has operationally (though not officially) abandoned the policy of maintaining the real exchange value and embarked on a series of mini-devaluations dispute. The earlier than expected fall in coffee prices has meant that pressure for accelerating the pace of devaluation has increased. There is no evidence that this acceleration in the depreciation of the shilling has had any positive effect on manufactured exports. This is because the bulk of Kenyan manufactured exports are destined for the markets of neighbouring countries who are typically under pressure to devalue at a faster rate than Kenya. Harmonizing exchange management policies and moving towards a unified currency system within the PTA is thus an important pre-requisite for increasing interregional exports.

D. Trade policies

The pressure for import liberalization was intensified during the period of the structural adjustment programme of the early-1980s. Nevertheless due to a deteriorating balance of payments position Kenya has had no option but to substantially maintain import controls. Import licensing and categorization of commodities into various schedules is the responsibility of the Import Management Committee with representatives from the Central Bank, the Ministry of Trade and the Ministry of Finance. Import and industry licensing procedures accord priority to capital goods and intermediate inputs and

essential grain inputs. Non-essential consumer goods are the main items subject to import control. The rigour with which the import control regime is applied varies with foreign exchange available - thus in 1986 import liberalization proceeded rapidly.

The average nominal tariff rate in Kenya in the mid-1980s was not atypical of most developing countries in its income group - nor was the variation range atypical. Like most import-substituting developing countries Kenya levied the highest nominal tariffs on consumer goods and the lowest on capital imports. Effective rates of protection were higher and tended to vary much more than nominal tariffs.

Since 1974 the government has been concerned to develop a comprehensive range of export incentives. The Export Compensation Scheme permits duty drawbacks on imported inputs and refunds indirect tax revenues to export oriented firms. In 1986, 700 products were designated as eligible products within this scheme. The Export Compensation Scheme is structured in such a way that it benefits exporters of manufactures to developed countries (particularly canned pineapples) disproportionately. Large firms are the main beneficiaries. Small and medium-sized are said not to apply for compensation due to the complicated administrative procedures.

Export incentives have not proved very effective in stimulating manufactured exports. Kenya has had very marginal benefit from participation in Lomé III (which in principle allows restriction-free entry of Kenyan manufactures to EC markets) and the operation of the Generalized System of Preferences. High hopes were placed on the expansion of inter-regional trade but as noted earlier progress has been slow because of the inability to organize a regional payment system and to actively pursue regional investment cooperation. There is a need to pursue these initiatives vigorously and to link trade, investment and macro policy harmonization issues at a regional level. There is also a need to seriously study the possibility of expanding countertrade with countries such as Egypt, India, and Pakistan. Nigeria's experience with Brazil in this area may provide important lessons for Kenya.

E. Foreign investment climate and indigenization

Since independence Kenya has pursued a consistent policy supporting private sector development. Transnational corporations and Asian owned firms dominate the private manufacturing sector and Kenyan-Africans maintain essentially a symbolic presence. Indigenization has therefore meant an expansion of the public sector. As the World Bank survey shows, Transnational Corporations (TNCs) enjoy a higher level of effective protection than public manufacturing enterprises.^{1/} The government offers a comprehensive range of incentives - tariff protection, input price controls, duty drawbacks, investment subsidization, access to domestic credit, one step licensing and sanctioning procedure etc. Direct foreign investment has continued to move out of Kenya since the mid-1970s, the time of the collapse of East African Community. The switch from an import substitution to an export oriented industrialization policy is unlikely to stimulate the growth of foreign investment unless the PTA region experiences an economic recovery and becomes attractive to the foreign investor. It is thus not incentive packages but a thriving domestic and regional economy which can revive the interest of the TNCs in Kenya.

1/ World Bank Report, Kenya: Industrial Sector Policies for Investment and Export Growth, May 1987, No. 6711, KE, Vol. 2, p. 30.

The 1980s has been witnessing a partial switch to outward looking and more liberal policies. Continued adherence will depend upon the effect they have on employment, investment and output growth and on reducing the maldistribution of income.

4.3 Recent changes in industrial policy

The key elements of recent industrial policy are focussed on the development of the micro-enterprise sector, promotion of export orientation and stimulation of industrial employment. Paradoxically, the emphasis on liberalization may retard the inflow of foreign investment - because most direct foreign investment during the 1960s and 1970s was of the import-substituting type which depended significantly on high levels of protection for continued profitability. A substantial reduction in protection levels is unlikely to increase the attractiveness of Kenyan industry to potential foreign markets. That Kenya is serious in its pursuit of economic liberalization is evident from the fact that the import licensing system was relaxed generously in both 1986 and 1987. The new IMF stand-by agreement means that this programme of liberalization will have to be sustained during the next three years.

Kenya's attraction to foreign investors is likely to increase because of normalization of relations with both Uganda and Tanzania during 1986 and 1987. Moreover Kenya's success in May 1986 in persuading the PTA to ease regulations and allow companies with a majority of foreign equity holding to enjoy preferential rates (worked out on a sliding scale linked to the percentage of foreign equity ownership) is another important advantage from the TNC perspective. Most TNC investment (which took place before 1977 when the East African Community collapsed) in Kenya was geared to supplying the East African regional market. Kenya's important position within the PTA is a significant incentive which might lead to a revival of TNC interest in Kenya as a point of entry into Central and Southern Africa. This depends of course on the progress made by the PTA.

Incentives provided for an expansion of private investment during 1987 also included rationalization of the price control system. The price adjustment system was streamlined with a view to reducing the time lag involved in government response to manufacturers' requests for price adjustment. Prices of a large range of "non-essential" goods were de-regulated in 1986 and 1987.

The government remains committed to a programme of "Kenyanization". But this has largely taken the form of the entirely voluntary and officially non-induced sale of equity by some TNC subsidiaries to Kenyan nationals. Kenya's Foreign Investment Protection Act is perhaps the most liberal legislation of its type anywhere in the developing world. Despite thereof there has been virtually no new direct foreign investment in the manufacturing sector since 1978. General Motors established a vehicle assembly plant near Nairobi.^{1/} During 1985-1987 the pace of de-investment by foreign companies has increased. About twenty major firms have significantly reduced their operations during this period.

Both domestic and foreign investment in manufacturing has been deterred by the banking crisis of 1986 and 1987. Although a somewhat more rigorous procedure has been evolved to regulate bank lending during 1987 and 1988, the

^{1/} Oil exploration has continued (by ARAMCO) during the 1980s.

commercial banking and other financial intermediaries are primarily geared to meeting essentially short-term credit needs. Long-term credit needs remain undersatisfied. The credit system is also incapable of meeting the credit needs of small enterprises. The jua kali firms (small firms) - central to the industrial strategy outline in the Sessional Paper 1986 - remain seriously credit starved. The Nairobi Stock Exchange is a less important source of external finance for major manufacturers than it is for large commercial and trading interests.

Official policy during 1987 encouraged the establishment of intermediate industries. The Investment Promotion Centre (IPC) has been canvassing potential investors to establish factories producing PVC - which could supply manufactures producing a wide range of items - and machine tools. Two new glass producers started manufacturing bottles and glasses. IPC has produced evidence to show that the potential for a sheet glass factory and a factory producing carburetors also exists. Several new establishments producing automobile components started functioning in 1987.

4.4 Manufacturing prospects and opportunities

Expansion of manufacturing investment remains seriously constrained by the foreign exchange shortage. The import intensity of the sector has increased since 1982 when the import liberalization was initiated. Despite the pressure on the balance of payments, Kenya is likely to persist with the import liberalization programme due to its need for IMF stand-by credit on the one hand and its need for IMF-endorsed rescheduling arrangements with its commercial creditors.

It seems likely that the pace of manufacturing sector growth will slow down during 1988. Manufacturing growth in Kenya is significantly constrained by the rapid obsolescence of capital equipment. However, investment, by both public and private sector enterprises, shows little signs of buoyancy. Domestic investment fell sharply during 1985. Although there was a mild recovery during 1986 the growth of domestic investment remained constrained by the crisis within the financial sector. The earlier than expected fall in coffee prices and the need to adopt macro-economic deflationary measures are likely to depress investment growth particularly in the large-scale manufacturing sector. Gross capital formation as a proportion of GDP stood at 26 per cent in 1978 (one of the highest levels in Sub-Saharan Africa). This had fallen to 18 per cent in 1985 and a further reduction has in all probability occurred during 1987/88.

Decline in large-scale manufacturing investment levels and scarcity of foreign exchange mean that the micro-enterprises are expected to play a key role in providing manufacturing jobs. During 1987 and 1988 the government has adopted a number of policy measures to facilitate the expansion of this sector. These include the establishment within the Kenya Commercial Bank (one of the largest public sector financial institutions within the country) of an informal enterprise sector-oriented credit facility, the expansion of training programmes aimed at alleviating the shortage of skills and management techniques which the jua kali sector currently experiences and the provision of some taxation and tariff preferences in favour of jua kali producers. There is some indication that the more positive and encouraging policy environment - not so much the provision of credit and training facilities which remain marginal and benefit a very tiny proportion of the enterprises within the sub-sector, but rather the noticeable nation-wide decline in official surveillance and harassment of jua kali producers - is encouraging a

diversification and expansion of informal micro-enterprises particularly in Nairobi and Mombasa. There has been a particularly encouraging expansion of jua kali enterprises producing machine tools including tile making machinery, wheel rims, wheel caps, other automobile parts, hydraulic jacks, bottle jacks etc. There is some prospect of institutionalized cooperation between such enterprises and the University of Nairobi to facilitate technological upgrading. Diversification of jua kali production remains confined to urban micro-enterprise.

Potential also exists for rapid product diversification within the large- and medium-scale manufacturing sector. The Kenya Association of Manufacturers argues that scope exists for domestic production of a wide range of intermediate industrial and agricultural inputs. Kenya has the capacity to manufacture single stage centrifugal pumps to satisfy total domestic needs according to KAM.^{1/} Production of fertilizers, pesticides, industrial acids, textile dyes and caustic soda could also be expanded rapidly. Expansion of production of motor parts is however more problematic because of the wide range of trucks, cars, buses and pick-ups that are locally assembled. KAM believes that during 1987 under-utilization of capacity has become a serious problem. This is particularly serious in steel foundries (capacity utilization rates of 23 per cent), hand tools (22 per cent), metal engineering (30 per cent), plastics (50 per cent).^{2/} However, existence of technical ability to expand production within these sectors is offset by the rapid obsolescence of existing capital stock (which ensures that capital productivity remains very low), investment cutbacks by both private and public manufacturing enterprises, foreign exchange shortages and the government's commitment to economic liberalization.^{3/} Demand constraints on the growth of these manufacturing branches could be relaxed by the development of trade co-operation within the PTA - but progress in this field has been very slow. Thus during 1984-1987 Kenya made only 122 transactions through the PTA Clearing House^{4/} at Harare. Trade growth is inhibited because almost all transactions have to be in hard currencies,^{5/} transportation costs are high and there have been only marginal adjustments in tariffs and non-tariff barriers. It is clear that in the PTA - as in similar arrangements throughout the developing world - trade co-operation requires prior agreements on the harmonization of fiscal and monetary policies and the establishment of a medium-term framework for investment co-operation. Trade within the PTA cannot grow in the absence of such arrangements. Trade growth has also been crucially constrained by an absence of regional marketing institutional infrastructure and appropriate technical expertise.

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- 1/ At end-1987 the Kenya railway engineering workshop and the Chemiluli Sugar Company manufactured such pumps only for personal use.
 - 2/ As reported in Africa Business, April 1987, pp. 38-40.
 - 3/ Even in the export-substitution phase, KAM insists that inconsistencies in tariff discriminatory policies inhibited the growth of the intermediate and producer goods industries.
 - 4/ Africa Business, April 1987, p. 64.
 - 5/ The relative strength of the Kenyan shilling however ensures it is wider acceptable within the region.

Sustained and efficient expansion of the manufacturing sector requires the development of a positive industrial policy framework. There is also a need for improving Kenya's access to international finance both concessional and commercial, particularly direct investment by TNCs, - and to regional and developed country markets. Multilateral technical assistance can play an important role in meeting both these needs of the Kenyan manufacturing sector.

4.5 The role of technical co-operation in industrial development

During 1987 and 1988 a marked revival of interest in the industrialization of the Sub-Saharan economies induced some multilateral agencies to take a fresh look at these economies with a view to reassessing the industrial strategies of key African countries. There is now a wider recognition of the role of international co-operation in the development of these economies. The de-industrialization that has occurred during the 1980s has had both a social and an economic cost. Industrial growth has traditionally been the main conduit for the transmission of skill to the bulk of the population. The appearance of a thriving small-sector with a subcontracting role is also a means for accelerating the diffusion of the benefits of economic growth and thus improving the pattern of income distribution. De-industrialization is a symptom of both de-skilling and widened income disparities. Despite its relatively broader and diversified manufacturing base Kenya has not escaped internal and external constraints.

A widely cited recent report has pointed out that "the shortage of industrial capabilities and its inadequate growth in relation to expanding industrial needs in the (Sub-Saharan) region is the major structural problem of past industrialization."^{1/} In Kenya this takes two forms. First of all the high level of industrial concentration has meant that the upgrading of technological and entrepreneurial skills that has taken place - and this has been considerable in comparison with most other African countries - has remained concentrated in a small number of manufacturing enterprises. Secondly, this expansion has also remained concentrated in industrial branches which grew in the 1960s and early 1970s with the result that changes in the structure of manufacturing production and employment have been very limited. A priority task for multilateral technical assistance in the industrial field is the establishment of an institutional and policy framework for accelerating the dissemination of technical, managerial and marketing skills throughout the manufacturing sector. The government's approach to this problem has been the encouragement of the jua kali sector. But as is widely recognized the upgrading of jua kali and even modern small-scale enterprise and their graduation into the world of big business has proved very difficult. There is what has been described as a "missing middle" in the manufacturing enterprise structure. To fill this gap it is necessary to provide an institutional focus for constructing and strengthening organizational and subcontracting links between the major manufacturing firms on the one hand and the small-scale and jui kali enterprises on the other. Multilateral technical assistance should be provided to enable the government to play an active role in constructing such linkages, continuously negotiating subcontracting and organizational agreements, monitoring and implementing negotiated agreements, and fostering institutional co-operation. Such an active industrial policy has been pursued by the Republic of Korea where considerable emphasis has been placed on expanding organizational and subcontracting between large- and small-scale manufacturing enterprises.

^{1/} S. Lall and G. Hayira, Long Term Perspectives on Sub-Saharan Africa, May 1987.

The need for a positive industrial policy is also underlined by the decline in the rate of capital accumulation. The rate of capital accumulation has actually been negative during most of the 1980s with the result that the capital stock has diminished significantly. Despite the emergence of high levels of capacity under-utilization in key industrial branches the need for new investment remains high because of the growing obsolescence of the existing capital stock and the very low level of capital productivity that exists within the manufacturing sector. The low employment elasticities in manufacturing firms illustrate the inappropriateness of existing technology in the face of the rapidly expanding urban population. Although considerable expertise in procurement has been built up in the engineering industries, employment considerations have clearly not been taken into account when acquiring new technology. Thus, while value added grew at the annual average rate of 22.8 per cent in the transport equipment branch over 1975-1984, employment grew only at the annual rate of 2.6 per cent. Expansion of employment capacity thus requires an active technological acquisition policy and the conclusion of agreements between multilateral agencies, development finance institution, TNCs, international banks and public sector bodies which can revitalize the flow of foreign capital to the manufacturing sector, monitor its deployment and promote its utilization in avenues which can significantly expand the employment generating capacity of most industrial branches. Once again this will involve the strengthening of organizational, financial and subcontracting linkages between large- and small-scale enterprises. Multilateral technical assistance can play an important role in the formulation of a viable national technology acquisition policy and in the development of appropriate financial arrangement for improving Kenya's access to foreign capital markets. Debt equity swaps may be one mechanism which needs particular investigation.

Kenya's industrialization has concentrated on the development of domestic demand-oriented branches. This is unlikely to change in the foreseeable future particularly because, contrary to popular belief, the scope for efficient import substitution has not been exhausted. The import to apparent consumption ratio remains high for a wide range of manufactured products. The import substitution which has occurred in the past has however created problems of economic efficiency. There is therefore a strong case for overhauling the system of industrial incentives and regulations to ensure a balanced approach towards revitalizing manufacturing activities. Dismantling of market restraints has to be seen in the context of an active industrial policy which discriminates selectively in favour of key sub-sectors (machine tools, chemical feedstock and fertilizers, textiles) through an evolutionary, flexible and imaginative deployment of a wide array of policy instruments.^{1/} The development of such a policy arsenal and its effective utilization requires a significant upgrading of the administrative, managerial and accounting expertise available to the governmental institutions dealing with the formulation and implementation of industrial policy. The provision of training facilities for building up the managerial and accounting capacity of government bodies provides another role for multilateral technical assistance and can be of special importance to UNIDO.

Kenya would also need to significantly expand manufactured exports. Such expansion must not be at the expense of Kenya's neighbours through for example a policy of competitive devaluation. The present concern to correct the assumed "anti-export" bias of industrial policy must be examined in this

^{1/} Once again the experience of the Republic of Korea is relevant.

context. It has been shown that Kenya's manufactured exports are primarily oriented to regional markets. Multilateral technical assistance could therefore be provided for strengthening the institutional framework for the development of a regional industrial policy - involving investment co-operation, macro-economic policy harmonization and trade integration - within the context of PTA. There is also a need for improving the coverage and operation of the relevant sections of the forthcoming re-negotiations under Lomé Convention to increase Kenyan manufactured exports to EC markets. Multilateral assistance can also be provided to expand Kenya's industrial co-operation with countries such as India, Egypt and Pakistan. The development of export arrangements as part of comprehensive co-operation initiatives between Indian and Kenyan manufacturing enterprises can assume significant importance.

ANNEX A
STATISTICAL TABLES

Table A-1: Quantity index of manufacturing output, 1981-1985
(1976 = 100)

	1981	1982	1983	1984	1985
Food processing	109.4	112.9	119.5	128.2	135.7
Beverages and tobacco	137.0	129.3	128.3	134.7	144.6
Textiles	169.9	134.0	146.8	166.6	174.3
Clothing	379.8	388.5	406.8	369.5	352.5
Leather and footwear	111.0	92.8	93.1	81.3	80.1
Wood and cork products	125.4	131.9	109.6	91.5	66.4
Furniture and fixtures	77.5	64.9	67.1	69.3	71.6
Paper and paper products	135.5	142.8	129.5	137.1	147.1
Printing and publishing	243.7	268.5	284.1	317.3	330.8
Basic industrial chemicals	159.4	166.5	150.5	167.8	163.3
Petroleum and other chemicals	207.3	187.4	196.6	245.0	257.2
Rubber products	203.8	152.6	195.0	227.5	247.2
Plastic products	176.7	163.8	176.6	186.3	198.0
Clay and glass products	198.2	181.5	216.8	282.3	289.1
Non-metallic minerals	125.0	124.7	122.2	108.4	121.9
Metal products	118.3	89.2	97.4	89.4	94.8
Non-electrical machinery	102.5	97.7	100.1	103.1	109.6
Electrical machinery	142.6	139.7	138.2	147.2	154.5
Transport equipment	788.3	774.1	904.2	774.9	674.8
Miscellaneous manufactures	146.8	107.9	118.8	157.7	202.1
Total manufacturing	<u>153.1</u>	<u>156.5</u>	<u>163.6</u>	<u>170.3</u>	<u>178.2</u>

Source: Economic Survey, 1986.

Table A-2: Structure of manufacturing employment, 1976-1985

Sub-sector	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Meat and dairy products	6,311	4,816	8,188	4,655	4,282	3,865	3,570	3,420	5,457	2,661
Canned vegetables, fish, oils and fats	4,501	4,568	5,001	5,147	3,614	4,161	4,175	4,420	3,848	3,847
Grain mill products	2,974	2,583	2,600	2,813	3,270	4,039	3,231	3,324	3,415	3,537
Bakery products	1,294	1,638	1,342	1,886	2,120	2,228	1,767	1,677	2,747	2,911
Sugar and confectionery	4,700	4,426	4,711	7,745	6,333	6,009	6,555	6,426	8,838	9,005
Miscellaneous foods	11,367	9,743	10,593	11,685	12,739	12,650	12,958	13,211	12,850	12,929
Beverage and tobacco	5,441	5,638	5,996	6,350	4,709	5,080	6,300	6,411	7,088	6,284
Textiles	13,230	14,643	16,673	18,520	18,085	22,098	23,037	26,721	21,295	19,132
Clothing	3,222	3,344	3,088	3,323	3,939	4,280	4,920	4,997	4,375	5,237
Leather products and footwear	2,199	2,638	3,484	3,568	3,513	3,629	3,095	3,126	2,630	842
Wood and cork products	7,030	6,975	7,557	7,905	8,064	9,112	9,026	1,013	7,356	6,855
Furniture and fixtures	1,278	2,009	2,152	2,228	1,643	1,764	1,506	1,709	2,297	1,705
Paper and paper products	3,040	3,131	2,840	3,418	3,347	3,496	3,448	3,721	3,624	4,205
Printing and publishing	3,284	2,604	2,499	2,456	2,399	2,404	2,777	2,871	2,349	2,476
Industrial chemicals	2,692	1,706	1,972	2,024	2,482	2,855	2,773	2,714	2,826	2,565
Petroleum and other chemicals	3,598	4,008	4,162	3,949	4,902	6,584	6,476	6,571	6,132	6,363
Rubber products	1,182	1,299	1,851	1,978	1,858	1,872	1,552	1,648	1,579	1,660
Plastic products	1,023	1,514	1,708	1,833	1,665	1,563	1,620	1,823	1,679	1,941
Pottery and glass products	813	949	1,063	1,077	1,068	1,184	1,336	1,434	1,315	1,359
Non-metallic mineral products	3,450	3,722	3,291	3,551	4,559	4,295	5,037	5,328	4,504	3,843
Metal products	6,757	7,355	7,378	8,896	10,809	11,223	9,920	10,909	8,920	9,594
Non-electrical machinery	386	528	429	586	737	662	539	669	321	460
Electrical machinery	4,368	4,663	4,991	5,738	5,659	6,056	6,472	6,705	1,491	1,779
Transport equipment	15,444	17,011	16,478	17,722	17,239	17,617	18,258	19,270	13,602	12,565
Miscellaneous manufactures	808	420	494	519	748	1,008	1,104	1,207	1,070	1,242
Total	110,392	111,981	120,541	129,572	129,782	139,734	141,452	141,325	131,716	125,656

Source: Central Bureau of Statistics, Statistical Abstract, various issues.

a/ Employment in large-scale firms. The only one for which reliable statistical estimates are available. Large firms account for about two-thirds of MVA.

Table A-3: Selected industrial indicators, by branch of manufacturing, 1975 and 1985
(at current prices)

Description (ISIC)	Value added per employee		Wages and salaries per employee		Share of value added in gross output (percentage)		Share of wages and salaries in value added (percentage)	
	1975	1985	1975	1985	1975	1985	1975	1985
TOTAL MANUFACTURING(300)	1157	2696	505	1253	22.9	18.9	43.7	46.5
Food products(311)	1342	3157	516	1167	18.2	14.7	36.5	37.0
Beverages(313)	2772	8001	828	2594	41.8	39.4	33.5	32.4
Tobacco(314)	3207	10651	882	2922	43.6	36.7	30.6	27.4
Textiles(321)	597	1653	336	845	26.6	29.1	56.2	51.1
Wearing apparel,except footwear(322)	518	1512	339	776	19.0	24.7	65.5	51.3
Leather products(323)	633	1914	433	1081	19.8	30.7	68.4	56.5
Footwear,except rubber or plastic(324)	890	2187	317	507	24.8	28.8	35.6	23.2
Wood products,except furniture(331)	361	1130	232	718	32.3	32.9	64.2	63.5
Furniture,except metal(332)	619	1962	422	853	25.0	28.2	68.2	45.0
Paper and products(341)	1619	5581	780	1630	20.8	27.7	48.8	29.2
Printing and publishing(342)	1270	3307	769	2380	29.2	24.9	60.5	71.4
Industrial chemicals(351)	2084	4145	911	1824	15.6	20.4	44.1	44.0
Other chemicals(352)	2091	3970	760	1841	20.4	21.7	36.3	46.4
Petroleum refineries(353)	13513	15456	2030	4826	6.2	2.4	15.0	31.2
Misc. petroleum and coal products(354)	...	...	...	...	...	...	...	...
Rubber products(355)	2993	6131	722	2406	60.2	27.4	24.1	39.2
Plastic products(356)	1732	2299	674	1232	30.3	18.3	38.9	53.6
Pottery, china, earthenware(361)	1333	1803	547	1459	31.3	24.5	41.0	80.9
Glass and products(362)	1154	1721	552	1075	32.4	23.2	47.8	62.5
Other non-metallic mineral prod.(369)	1870	2089	685	932	35.1	17.2	35.0	44.6
Iron and steel(371)	1545a/	3425a/	527a/	1727a/	14.4a/	12.6a/	34.1a/	50.4a/
Non-ferrous metals(372)	...	...	...	...	...	...	...	...
Fabricated metal products(381)	1086	1974	548	1207	26.0	21.4	50.5	61.2
Machinery,except electrical(382)	836	3833	641	2453	26.0	18.5	76.6	64.0
Machinery electric(383)	1448	4075	717	2273	49.9	37.1	49.5	55.8
Transport equipment(384)	534	1123	317	827	44.7	18.0	59.3	73.6
Professional & scientific equipm.(385)	...	...	...	...	...	...	...	...
Other manufactured products(390)	712	1410	502	1113	19.8	25.3	70.5	78.9

Source: Statistics and Survey Unit, UNIDO. Based on data supplied by the UN Statistical Office, with estimates by the UNIDO Secretariat.

Note: TOTAL MANUFACTURING is the sum of the reported ISICs and does not necessarily correspond to ISIC 300 total.

Footnotes: a/ 3710 includes 3720

Table A-4: Selected growth indicators and employment elasticity in the sub-sectors of manufacturing, 1975-1984
(percentage)

Description (ISIC)	Growth of value added at 1980 prices	Growth of employment	Growth of value added per employee	Employment elasticity
	1975-1984	1975-1984	1975-1984	1975-1984
Food products (311)	3.69	3.08	0.61	0.83
Beverages (313)	2.67	1.50	1.33	0.56
Tobacco (314)	6.33	-0.88	7.97	-0.14
Textiles (321)	4.33	7.25	-3.23	1.70
Wearing apparel, except footwear (322)	19.95	5.61	13.39	0.28
Leather products (323)	1.38	4.09	-2.73	2.96
Footwear, except rubber or plastics (324)	1.38	7.08	-5.82	5.24
Wood products, except furniture (331)	0.19	4.25	-3.92	22.36
Furniture, except metal (332)	-5.49	1.20	-6.53	...
Paper and products (341)	6.34	3.87	2.29	0.01
Printing and publishing (342)	14.60	1.23	13.74	0.08
Industrial chemicals (351)	6.36	4.80	1.55	0.75
Other chemicals (352)	10.02	9.21	-0.67	0.83
Petroleum refineries (353)	12.35	3.60	8.52	0.29
Misc. petroleum and coal products (354)	...	...	...	...
Rubber products (355)	11.99	5.71	5.62	0.45
Plastic products (356)	8.05	6.08	1.35	0.75
Pottery, China, earthenware (361)	7.08	7.21	-0.72	1.02
Glass and products (362)	7.08	6.02	0.63	0.89
Other non-metallic mineral prod. (369)	1.38	6.20	-4.72	4.49
Iron and steel (371)	17.20	...	...	...
Non-ferrous metals (372)	...	...	...	...
Fabricated metal products (381)	0.46	8.22	-7.61	17.86
Machinery, except electrical (382)	-1.43	8.01	-9.11	...
Machinery electric (383)	4.54	5.42	-1.10	1.19
Transport equipment (384)	29.22	2.58	26.20	0.09
Other manufactured products (390)	4.90	9.57	-4.91	1.95

Source: Statistics and Survey Unit, UNIDO based on data supplied by the UN Statistical office with estimates by the UNIDO Secretariat.

Table A-5: Performance of manufacturing sector, 1963-1985

<u>Year</u>	<u>Gross profit Wages (KSh '000)</u>	<u>Gross profit Valued added</u>	<u>Gross profit Employment</u>
1963	12,069	.859	.462
1964	...	...	...
1965	...	...	...
1966	...	...	...
1967	16,020	.768	.434
1968	17,633	.774	.436
1969	22,016	.846	.458
1970	26,364	.891	.471
1971	31,501	.998	.500
1972	40,506	1.071	.517
1973	53,811	1.233	.552
1974	71,216	1.251	.556
1975	78,240	1.289	.563
1976	107,558	1.459	.593
1977	128,479	1.508	.602
1978	128,897	1.248	.555
1979	151,239	1.278	.561
1980	187,853	1.320	.569
1981	181,570	1.120	.528
1982	202,249	1.097	.523
1983	229,013	1.175	.540
1984	258,575	1.175	.540
1985	287,871	1.152	.535

Source: UNIDO data base.

Table A-6: Performance indicators of Kenyan manufacturing sub-sectors, 1971-1985 (selected years)

ISIC	Year	Gross profit (KSh'000)	Value added		Gross fixed capital formation
			Gross profit Value added	Gross output	Value added
311 Food products	1971	4723	.470	.140	.565
	1977	47544	.731	.122	...
	1981	43710	.593	.123	...
	1985	83588	.630	.147	...
313 Beverages	1971	3670	.660	.430	.476
	1977	9725	.679	.186	...
	1981	18528	.686	.445	...
	1985	28214	.676	.394	...
314 Tobacco	1971	1684	.680	.475	.046
	1977	3919	.711	.188	...
	1981	6827	.727	.424	...
	1985	10524	.726	.367	...
321 Textiles	1971	1809	.474	.317	.252
	1977	6226	.506	.251	...
	1981	12457	.453	.284	...
	1985	20255	.489	.291	...
322 Wearing appear, except footwear	1971	839	.503	.251	.179
	1977	1588	.420	.211	...
	1981	5574	.572	.266	...
	1985	5984	.487	.247	...
323 Leather products	1971	89	.291	.200	.265
	1977	279	.281	.241	...
	1981	737	.368	.297	...
	1985	1448	.435	.307	...
324 Footwear, except rubber or plastics	1971	416	.543	.270	.142
	1977	1313	.662	.289	...
	1981	2864	.741	.246	...
	1985	4882	.768	.288	...
331 Wood products except furniture	1971	478	.289	.320	.242
	1977	2111	.388	.299	...
	1981	2740	.343	.304	...
	1985	5031	.365	.323	...
332 Furniture except metal	1971	635	.486	.324	.072
	1977	3379	.543	.247	...
	1981	3446	.519	.235	...
	1985	5791	.550	.263	...

Table A-6 (continued)

ISIC	Year	Gross profit (KSh'000)	Value added		Gross fixed capital formation
			Gross profit Value added	Value added Gross output	Value added
341	1971	749	.427	.256	.198
Paper and products	1977	6224	.677	.280	...
	1981	12193	.701	.343	...
	1985	17816	.708	.277	...
342	1971	879	.268	.355	.142
Printing and publishing	1977	1772	.264	.305	...
	1981	3933	.273	.273	...
	1985	5760	.286	.249	...
351	1971	1030	.626	.207	.091
Industrial chemicals	1977	4556	.730	.311	(351+352)
	1981	6025	.571	.235	...
	1985	8072	.560	.204	...
352	1971	2518	.649	.376	see
Other chemicals	1977	5752	.499	.238	351
	1981	11730	.506	.237	
	1985	19390	.536	.217	
353	1971	2778	.825	.179	.070
Petroleum refineries	1977	5531	.809	.055	...
	1981	4387	.690	.031	...
	1985	5953	.688	.024	...
355	1971	341	.556	.401	5.498
Rubber products	1977	4543	.744	.388	...
	1981	6215	.609	.259	...
	1985	11001	.608	.274	...
356	1971	285	.463	.333	see
Plastic products	1977	1628	.610	.275	390
	1981	1734	.521	.236	
	1985	2423	.464	.183	
361	197	42	.525	.444	.188
Pottery, China, earthen ware	1977	83	.638	.295	...
	1981	29	.145	.278	...
	1985	57	.189	.245	...
362	1971	353	.630	.434	.013
Glass and products	1977	513	.546	.288	...
	1981	608	.422	.273	...
	1985	789	.375	.232	...

Table A-6 (continued)

ISIC	Year	Gross profit (KSh'000)	Gross profit		Gross fixed capital formation	
			Value added	Value added Gross output	Value added	Value added
369	1971	2673		.684	.345	.905
Other	1977	6576		.670	.342	...
non-metallic	1981	4910		.538	.179	...
mineral	1985	8013		.554	.172	...
products						
371	1971	0		--	--	--
(includes	1977	1806		.612	.148	...
3710 + 3720)	1981	2201		.478	.127	...
Iron & Steel	1985	3395		.496	.126	...
381	1971	2405		.530	.323	.400
Fabricated	1977	4514		.485	.244	...
metal	1981	5787		.367	.189	...
products	1985	10525		.388	.214	...
382	1971	226		.238	.396	.045
Machinery	1977	1134		.395	.265	...
except	1981	2851		.430	.139	...
electrical	1985	3936		.360	.185	...
383	1971	1482		.427	.431	.030
Machinery	1977	2110		.286	.345	...
electrical	1981	13841		.503	.446	...
	1985	15918		.442	.371	...
384	1971	1023		.172	.459	.069
Transport	1977	4858		.371	.312	...
equipment	1981	7438		.356	.221	...
	1985	7993		.264	.180	...
390	1971	374		.437	.342	.345
Other	1977	795		.344	.251	includes
	1981	805		.196	.243	356
	1985	1113		.211	.253	...

Source: UNIDO data base.

Table A-7: Employment and wages and salaries in manufacturing, 1975 and 1985
(at current prices) (KSh)

Description (ISIC)	Employment				Wages and salaries			
	Pers. engaged		Share in total (percentage)		(thousands) Wag+sal empl.		Share in total (percentage)	
	1975	1985	1975	1985	1975	1985	1975	1985
TOTAL MANUFACTURING(300)	120077	199434	100.0	100.0	60696	248892	100.0	100.0
Food products(311)	24442	42011	20.4	21.1	12612	49033	20.8	19.6
Beverages(313)	4134	5218	3.4	2.6	3838	13535	6.3	5.4
Tobacco(314)	1445	1360	1.2	0.7	1419	3975	2.3	1.6
Textiles(321)	12636	25083	10.5	12.6	4242	21195	7.0	8.5
Wearing apparel,except footwear(322)	5062	8127	4.2	4.1	1715	6307	2.8	2.5
Leather products(323)	975	1739	0.8	0.9	422	1880	0.7	0.8
Footwear,except rubber or plastic(324)	1493	2907	1.2	1.5	473	1475	0.8	0.6
Wood products,except furniture(331)	8358	12199	7.0	6.1	1936	8754	3.2	3.5
Furniture,except metal(332)	3242	5367	2.7	2.7	1369	4741	2.3	1.9
Paper and products(341)	2625	4509	2.2	2.3	2074	7348	3.4	2.9
Printing and publishing(342)	4878	6079	4.1	3.0	3752	14346	6.2	5.7
Industrial chemicals(351)	2299	3479	1.9	1.7	2095	6347	3.5	2.5
Other chemicals(352)	3729	9106	3.1	4.6	2833	16764	4.7	6.7
Petroleum refineries(353)	400	560	0.3	0.3	812	2703	1.3	1.1
Misc. petroleum and coal products(354)	0	0	0.0	0.0	0	0	0.0	0.0
Rubber products(355)	1499	2953	1.2	1.5	1082	7105	1.8	2.8
Plastic products(356)	1108	2271	0.9	1.1	745	2797	1.2	1.1
Pottery, china, earthenware(361)	75	167	0.1	0.1	41	244	0.1	0.1
Glass and products(362)	667	1221	0.6	0.6	368	1313	0.6	0.5
Other non-metallic mineral prod.(369)	3924	6925	3.3	3.5	2569	6451	4.2	2.6
Iron and steel(371)	1039a/	1999a/	0.9a/	1.0a/	548a/	3451a/	0.9a/	1.4a/
Non-ferrous metals(372)	...	...	...	...	...	...	...	...
Fabricated metal products(381)	6782	13733	5.6	6.9	3716	16577	6.1	6.6
Machinery,except electrical(382)	1249	2853	1.0	1.4	800	7000	1.3	2.8
Machinery electric(383)	5038	8831	4.2	4.4	3611	20069	5.9	6.0
Transport equipment(384)	21128	26992	17.6	13.5	6694	22316	11.0	6.9
Professional & scientific equipm.(385)	0	0	0.0	0.0	0	0	0.0	0.0
Other manufactured products(390)	1852	3745	1.5	1.9	930	4187	1.5	1.7

Source: Statistics and Survey Unit, UNIDO. Based on data supplied by the UN Statistical Office, with estimates by the UNIDO Secretariat.

Footnotes: a/ 3710 includes 3720

Table A-8: Composition and value of trade, 1982 and 1983

Description of traded goods (SITC)	Imports		Exports		Trade balance (Exports less imports in 1000 current US \$)	
	(Percentage of total trade)					
	1982	1983	1982	1983	1982	1983
OILS AND FATS						
Animal oils and fats(411)	0.3	0.2	0.0	0.0	-5406.7	-2647.5
Fixed vegetable oils and fats(421/2)	2.5	4.8	0.0	0.1	-40190.2	-64998.4
Processed animal and vegetable oils and fats(431)	0.1	0.0	0.0	0.1	-555.6	-79.9
CHEMICALS						
Organic chemicals(512)	1.0	1.4	0.1	0.1	-14620.5	-19021.4
Inorganic chem., oxides and halogen salts(513/4)	1.2	1.5	0.1	0.1	-18740.0	-19568.1
Dyeing, tanning and colouring materials(531)	0.4	0.4	0.0	0.0	-5779.2	-5238.6
Medicinal and pharmaceutical products(541)	2.0	2.1	0.6	0.6	-27249.3	-23733.0
Plastics, cellulose and artificial resins(581)	2.2	2.4	0.1	0.0	-34237.0	-32493.8
FERTILIZERS						
Nitrogenous fertilizers & related materials(5611)	0.8	1.3	...	0.0	-6851.3	-17812.6
Phosphatic fertilizers and related materials(5612)	0.4	0.2	0.0	0.0	-4514.0	-2968.7
Potassic fertilizers and related materials(5613)	0.3	0.2	0.0	...	...	...
PETROLEUM						
Petroleum, crude or partly refined(331)	33.3	30.0	...	...	201822.4	110625.5
Petroleum products(332)	3.4	6.0	27.4	20.5		
RUBBER						
Crude rubber, synthetic and reclaimed(231)	0.4	0.6	0.0	0.0	-6557.5	-8175.5
Rubber materials, e.g. sheets, threads, piping(621)	0.2	0.1	0.0	0.0	-3800.4	-1846.8
Articles of rubber, e.g. tyres, tubes(629)	0.3	0.4	0.1	0.1	-3985.8	-5031.3
WOOD AND FURNITURE						
Wood, shaped or simply worked(243)	0.0	0.1	0.1	0.0	474.9	-1219.7
Pulp paper, including waste(251)	0.1	0.2	0.0	...	-1205.9	...
Veneers, plywood, improved wood(631)	0.0	0.0	0.1	0.1	623.3	361.6
Wood manufactures(632)	0.0	0.0	0.3	0.2	2498.0	1792.6
Paper and paperboard(641)	1.2	1.1	0.4	0.2	-15117.9	-13365.3
Articles of pulp, paper or paperboard(642)	0.2	0.2	0.5	0.5	2614.2	2104.8
Furniture(621)	0.1	0.1	0.2	0.1	407.5	-72.2
TEXTILES AND CLOTHING						
Wool and other animal hair(262)	0.0	0.0	0.2	0.1	2093.5	1350.7
Cotton(263)	0.0	0.1	0.0	0.1	-236.3	-499.9
Jute(264)	0.1	0.2	0.0	0.0	-2372.3	-3236.7
Vegetable fibres, flax and hemp(265)	0.0	0.0	2.0	1.9	18683.4	18141.3
Synthetic and regenerated fibres(266)	0.8	0.9	0.0	0.0	-13063.2	-11542.4
Textile yarn and thread(651)	0.2	0.2	0.0	0.0	-3306.9	-2325.6
Woven cotton fabrics(652)	0.0	0.0	0.0	0.0	-108.6	-196.9
Woven textile fabrics(653)	0.2	0.3	0.0	0.0	-2821.7	-3219.5
Made-up articles chiefly of textiles(656)	0.7	0.1	0.1	0.1	-9806.7	187.2
Travel bags, handbags, etc.(831)	0.0	0.0	0.0	0.0	-266.9	-207.2
Clothing, excluding leather(841 less 8413)	0.1	0.1	0.1	0.1	-258.3	-86.9
Calf leather(6113)	...	...	...	0.0	...	...
LEATHER AND PRODUCTS						
Other leather, including artificial(611 less 6113)	0.0	0.0	0.3	0.2	2263.9	1906.0
Leather manufactures(612)	0.1	0.1	0.0	0.0	-1094.5	-1128.6
Apparel and accessories of leather(8413)	0.0	0.0	0.0	0.0	-18.2	-104.3
Footwear(85)	0.0	0.0	0.1	0.1	144.1	-38.4
BUILDING MATERIALS AND GLASS						
Lime, cement, fabricated building materials(661)	0.0	0.0	3.7	4.0	34113.9	37350.5
Construction and refractory materials of clay(662)	0.2	0.2	0.0	0.0	-3574.8	-2380.3
Glass(664)	0.3	0.1	0.0	0.0	-4754.0	-1798.4
Glassware and pottery(665/6)	0.1	0.2	0.2	0.1	-762.3	-1578.6

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Table A-8 (continued)

Description of traded goods (SITC)	Imports		Exports		Trade balance (Exports less imports in 1000 current US \$)	
	(Percentage of total trade)				1982	1983
	1982	1983	1982	1983		
IRON AND STEEL						
Iron ore and concentrates(281)	0.0	0.0	0.0	0.0	..	-425.8
Iron and steel scrap(282)	0.0	0.0	0.0	0.0	..	15.6
Pig iron and sponge(671)	0.1	0.0	0.0	0.0	-1013.6	-222.1
Ingot and other primary forms(672)	0.3	0.9	0.0	0.0	-4003.2	-12705.6
Bars, rods, shapes, sections(673)	0.6	0.5	0.3	0.2	-7610.6	-5180.0
Universals, plates and sheets(674)	3.0	2.7	0.2	0.1	-46269.0	-36491.7
Hoop and strip(675)	0.0	0.1	0.0	0.0	-721.2	-749.3
Iron and steel wire(677)	0.0	0.1	0.1	0.1	-2664.4	-1216.3
Tubes, pipes and fittings(678)	0.3	0.3	0.1	0.1	-3602.7	-3080.8
Unworked castings and forgings(679)	0.0	0.0	0.0	0.0	-31.9	-34.2
NON-FERROUS METALS						
Non-ferrous ore and concentrates(283)	0.0	0.1	0.0	0.0	-763.5	-871.9
Copper, blister, refined, alloys(6821)	0.0	0.0	0.0	0.0	..	9.5
Copper bars, shapes, sections, wire, etc.(6822)	0.1	0.1	0.0	0.0	-2361.5	-1461.5
Aluminium, unwrought or worked(684)	0.4	0.3	0.0	0.0	-6106.7	-4090.4
Lead, unwrought or worked(685)	0.0	0.0	0.0	0.0	-222.0	-133.3
Zinc, unwrought or worked(686)	0.2	0.3	0.0	0.0	-3810.4	-4731.7
Tin and alloys, unwrought or worked(687)	0.0	0.0	0.0	0.0	-214.9	-349.3
Wire products, e.g. cables, ropes(693)	0.1	0.0	0.1	0.0	-863.4	-185.7
SELECTED CAPITAL GOODS						
Hand tools used in agriculture(6951)	0.0	0.0	0.0	0.1	7.0	688.3
Tools for use in hand or machine(6952)	0.5	0.3	0.0	0.0	-7252.4	-4082.7
Power generating machinery, non-electric(711)	2.2	0.8	0.0	0.0	-35698.0	-10840.4
Agricultural machinery(7121/2)	0.4	0.2	0.0	0.0	-5549.9	-2587.2
Dairy equipment(7123)	0.1	0.0	..	..	..	..
Tractors(7125)	0.7	0.5	..	..	..	..
Office machines(714)	0.3	0.4	..	0.0	..	-5017.2
Metal working machinery(715)	0.5	0.3	0.0	0.0	-7732.0	-4498.4
Textile and leather machinery(717)	0.9	0.5	..	0.0	..	-6349.7
Machines for paper, pulp and paper articles(7181)	0.1	0.6	..	0.0	..	-8444.9
Industrial food-processing machinery(7183)	0.6	0.5	0.1	0.1	-8511.3	-5729.0
Machine tools for working minerals, wood, etc.(7195)	0.3	0.1	0.0	0.0	-4270.0	-1304.5
Electrical power machinery and switchgear(722)	1.9	1.1	0.0	0.0	-30116.5	-14722.4
MAJOR CONSUMER DURABLES						
Commercial road vehicles(732 less 7321)	4.4	3.5	0.1	0.0	-70739.2	-47815.3
Passenger motor cars(7321)	1.0	1.3	..	..	..	..
Television and radio sets(7241/2)	0.5	0.3	0.0	0.0	-7405.6	-3435.3
Domestic electrical equipment(725)	0.2	0.3	0.0	0.0	-2605.5	-3601.7
TOTAL OF ABOVE, IN MILLIONS OF US \$	1176	993	353	286	-824	-708
TOTAL TRADE (SITC 0 TO 9), IN MILLIONS OF US \$	1603	1379	938	947	-665	-432

Source: Statistics and Survey Unit, UNIDO. Based on data supplied by the UN Statistical Office, with estimates by the UNIDO Secretariat.

Table A-9: Origin of imports by industry, 1983

Description of traded goods (SITC)	World total (in 1000 current US \$)	Developing countries	Developed market economies				Centrally planned economies
			Total	USA	EEC	Japan	
(Percent of world total)							
OILS AND FATS							
Animal oils and fats(411)	2668.6	0.0	99.6	45.9	40.6	0.0	0.0
Fixed vegetable oils and fats(421/2)	65712.2	96.2	3.8	2.7	0.6	0.5	0.0
Processed animal and vegetable oils and fats(431)	639.8	28.4	64.3	0.2	62.6	0.0	0.0
CHEMICALS							
Organic chemicals(512)	19502.9	1.2	98.8	26.8	63.6	1.1	0.2
Inorganic chem., oxides and halogen salts(513/4)	20510.3	6.1	93.5	3.8	60.7	5.5	0.4
Dyeing, tanning and colouring materials(531)	5241.2	3.0	97.0	1.2	59.5	0.8	0.0
Medicinal and pharmaceutical products(541)	29570.4	10.8	89.0	4.3	67.8	0.7	0.3
Plastics, cellulose and artificial resins(581)	32956.0	1.8	97.8	2.8	79.3	2.5	0.0
FERTILIZERS							
Nitrogenous fertilizers & related materials(5611)	17813.3	13.9	86.1	16.3	39.6	5.7	0.0
Phosphatic fertilizers and related materials(5612)	2973.1	38.9	61.1	61.1	0.0	0.0	0.0
Potassic fertilizers and related materials(5613)	3145.4	0.0	100.0	37.1	62.9	0.0	0.0
PETROLEUM							
Petroleum, crude or partly refined(331)	413522.6	100.0	0.0	0.0	0.0	0.0	0.0
Petroleum products(332)	83203.1	19.4	69.3	14.8	49.7	0.2	0.0
RUBBER							
Crude rubber, synthetic and reclaimed(231)	8175.7	48.1	51.8	5.3	42.4	0.2	0.0
Rubber materials, e.g. sheets, threads, piping(621)	1970.0	9.6	90.4	23.4	53.8	4.6	0.0
Articles of rubber, e.g. tyres, tubes(629)	5696.4	22.9	76.2	4.9	41.2	21.4	0.0
WOOD AND FURNITURE							
Wood, shaped or simply worked(243)	1365.5	3.1	96.9	0.0	96.9	0.0	0.0
Pulp paper, including waste(251)	2177.4	0.0	100.0	0.2	0.0	0.0	0.0
Veneers, plywood, improved wood(631)	507.2	4.8	29.6	0.0	29.6	0.0	0.0
Wood manufactures(632)	204.2	35.2	64.8	3.2	50.5	8.2	0.0
Paper and paperboard(641)	15404.8	0.4	99.6	1.1	18.1	0.2	0.0
Articles of pulp, paper or paperboard(642)	2665.8	0.8	99.1	15.5	73.1	0.6	0.0
Furniture(821)	1003.1	2.0	97.6	34.1	54.8	1.6	0.3
TEXTILES AND CLOTHING							
Wool and other animal hair(262)	64.8	0.0	100.0	0.0	100.0	0.0	0.0
Cotton(263)	1808.0	99.7	0.3	0.0	0.3	0.0	0.0
Jute(264)	3237.4	83.6	16.4	0.0	16.4	0.0	0.0
Vegetable fibres, flax and hemp(265)	38.0	0.0	100.0	0.0	100.0	0.0	0.0
Synthetic and regenerated fibres(266)	11544.4	0.5	99.3	2.8	43.5	30.8	0.0
Textile yarn and thread(651)	2554.0	11.2	60.4	0.1	46.2	13.1	2.1
Woven cotton fabrics(652)	275.4	67.3	31.6	0.2	30.7	0.1	0.0
Woven textile fabrics(653)	3539.8	0.6	99.3	7.7	13.6	2.0	0.1
Made-up articles chiefly of textiles(656)	894.3	7.7	91.7	2.5	51.5	1.3	0.0
Travel bags, handbags, etc.(831)	233.6	18.3	81.6	2.3	19.0	1.5	0.0
Clothing, excluding leather(841 less 8413)	1299.1	15.1	72.7	3.1	63.1	5.8	0.1
Calf leather(6113)	...	...	...	...	...	...	...
LEATHER AND PRODUCTS							
Other leather, including artificial(611 less 6113)	6.3	0.0	100.0	0.0	100.0	0.0	0.0
Leather manufactures(612)	1154.8	12.6	59.7	0.7	53.7	1.0	0.0
Apparel and accessories of leather(8413)	106.2	15.2	53.0	0.1	20.7	0.1	0.0
Footwear(85)	677.7	7.5	73.5	0.0	73.2	0.2	0.0
BUILDING MATERIALS AND GLASS							
Lime, cement, fabricated building materials(661)	377.1	43.6	56.1	6.2	23.3	26.5	0.3
Construction and refractory materials of clay(662)	2434.1	10.5	89.5	1.5	59.1	0.1	0.0
Glass(664)	1958.2	11.7	74.6	1.7	62.7	2.1	13.7
Glassware and pottery(665/6)	2158.0	11.8	86.0	6.5	65.9	10.9	2.2

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Table A-9 (continued)

Description of traded goods (SITC)	World total (in 1000 current US \$)	Developing countries	Developed market economies				Centrally planned economies
			Total	USA	EEC	Japan	
			(Percent of world total)				
IRON AND STEEL							
Iron ore and concentrates(281)	425.9	98.0	100.0	0.0	7.7	0.0	0.0
Iron and steel scrap(282)	2.3	98.8	1.2	0.0	1.2	0.0	0.0
Pig iron and sponge(471)	222.3	0.0	100.0	0.0	4.6	0.0	0.0
Ingots and other primary forms(672)	12711.5	0.0	100.0	0.0	17.4	82.0	0.0
Bars, rods, shapes, sections(673)	6827.6	0.0	100.0	0.0	68.3	33.0	0.0
Universals, plates and sheets(674)	37755.5	0.0	97.7	0.1	38.1	58.5	1.0
Hoop and strip(675)	768.2	0.0	98.6	0.0	4.0	33.7	0.0
Iron and steel wire(677)	1785.8	1.7	91.2	0.0	73.0	32.7	0.0
Tubes, pipes and fittings(678)	3730.0	2.2	98.1	0.0	100.0	22.0	0.0
Unworked castings and forgings(679)	45.0	0.0	100.0	0.0	0.0	0.0	0.0
NON-FERROUS METALS							
Non-ferrous ore and concentrates(283)	888.0	99.8	0.2	0.0	0.0	0.0	0.0
Copper, blister, refined, alloys(6821)	2.1	83.8	16.8	0.0	1.6	0.0	0.0
Copper bars, shapes, sections, wire, etc.(6822)	1467.3	20.0	73.0	0.0	42.4	3.0	0.0
Aluminium, unwrought or worked(684)	4250.1	26.4	73.0	0.0	33.3	0.0	0.0
Lead, unwrought or worked(685)	134.1	0.1	91.5	0.0	9.2	0.0	0.0
Zinc, unwrought or worked(686)	4789.1	26.0	73.4	0.0	32.0	0.0	0.0
Tin and alloys, unwrought or worked(687)	352.2	25.1	73.6	0.0	73.0	0.0	0.0
Wire products, e.g. cables, ropes(693)	533.3	18.6	81.4	0.0	33.0	0.0	0.0
SELECTED CAPITAL GOODS							
Hand tools used in agriculture(6951)	137.9	50.6	49.4	0.0	31.9	14.0	0.0
Tools for use in hand or machine(6952)	4210.7	18.9	80.3	0.0	31.1	10.0	0.0
Power generating machinery, non-electric(711)	10859.7	17.4	83.2	0.0	35.8	0.0	0.0
Agricultural machinery(7121/2)	2728.7	5.9	94.1	0.0	22.8	0.0	0.0
Dairy equipment(7123)	211.6	90.0	100.0	0.0	0.0	0.0	0.0
Tractors(7125)	6353.1	9.8	90.2	0.0	7.7	0.0	0.0
Office machines(714)	5033.7	1.9	97.9	0.0	23.4	0.0	0.0
Metal working machinery(715)	4534.8	40.0	45.1	0.0	26.6	14.7	0.0
Textile and leather machinery(717)	6363.1	6.3	83.7	0.0	10.7	14.3	0.0
Machines for paper, pulp and paper articles(7181)	2445.6	2.3	97.7	0.0	10.2	0.0	0.0
Industrial food-processing machinery(7183)	6387.2	6.5	93.4	0.0	48.7	0.0	0.0
Machine tools for working minerals, wood, etc.(7195)	1305.9	3.1	93.5	0.0	74.0	0.0	0.0
Electrical power machinery and switchgear(722)	14844.2	4.9	94.9	0.0	51.6	4.6	0.0
MAJOR CONSUMER DURABLES							
Commercial road vehicles(732 less 7321)	48765.9	0.8	99.0	1.0	38.5	57.2	0.0
Passenger motor cars(7321)	18315.0	3.0	96.9	0.0	56.1	28.8	0.0
Television and radio sets(7241/2)	451.9	27.1	69.6	0.0	22.7	45.0	0.0
Domestic electrical equipment(725)	3621.8	5.0	93.7	0.0	53.5	26.5	0.0
TOTAL OF ABOVE	992832	53.6	44.9	6.3	25.4	8.7	0.3
TOTAL OF ALL MERCHANDISE (SITC 0 to 9)	1379110	41.3	57.3	6.3	32.4	9.5	0.3

Source: Statistics and Survey Unit, UNIDO. Based on data supplied by the UN Statistical Office, with estimates by the UNIDO Secretariat.

Note: Percentages may not add to 100.0 due to the fact that countries report trade to/from "unspecified areas". Selection of products shown in this table was based on the definition of the manufacturing sector used for production statistics (i.e. the ISIC) and the associated raw material supplies. Thus, not all products are regarded as manufactures according to the conventional definitions of manufactured trade (e.g. SITC 5 to 8 less 68).

Table A-10: Destination of exports by industry, 1983

Description of traded goods (SITC)	World total (in 1000 current US \$)	Developing countries	Developed market economies				Centrally planned economies
			Total	USA	EEC	Japan	
(Percent of world total)							
OILS AND FATS							
Animal oils and fats(411)	21.1	78.8	0.0	0.0	0.0	0.0	0.0
Fixed vegetable oils and fats(421/2)	715.6	66.2	30.6	1.1	14.6	14.0	0.0
Processed animal and vegetable oils and fats(431)	559.8	31.3	68.7	5.8	41.1	21.8	0.0
CHEMICALS							
Organic chemicals(512)	481.6	31.0	68.9	0.0	68.9	0.0	0.0
Inorganic chem., oxides and halogen salts(513/4)	942.2	96.3	0.0	0.0	0.0	0.0	0.0
Dyeing, tanning and colouring materials(531)	2.7	89.0	0.0	0.0	0.0	0.0	0.0
Medicinal and pharmaceutical products(541)	5837.4	92.4	7.5	0.0	0.1	0.0	0.0
Plastics, cellulose and artificial resins(581)	462.2	96.1	3.3	0.0	2.0	1.3	0.0
FERTILIZERS							
Nitrogenous fertilizers & related materials(5611)	0.7	100.0	0.0	0.0	0.0	0.0	0.0
Phosphatic fertilizers and related materials(5612)	4.4	0.0	92.4	0.0	92.4	0.0	0.0
Potassic fertilizers and related materials(5613)	...	...	...	...	...	...	...
PETROLEUM							
Petroleum, crude or partly refined(331)	193828.6	73.0	0.0	0.0	0.0	0.0	0.0
Petroleum products(332)							
RUBBER							
Crude rubber, synthetic and reclaimed(231)	0.2	52.2	0.0	0.0	0.0	0.0	0.0
Rubber materials, e.g. sheets, threads, piping(621)	123.2	99.0	0.0	0.0	0.0	0.0	0.0
Articles of rubber, e.g. tyres, tubes(629)	665.1	98.1	1.6	0.0	1.6	0.0	0.0
WOOD AND FURNITURE							
Wood, shaped or simply worked(243)	145.8	94.9	1.0	0.4	0.6	0.0	0.0
Pulp paper, including waste(251)	...	...	...	...	...	...	...
Veneers, plywood, improved wood(631)	868.8	97.9	1.9	0.0	1.9	0.0	0.0
Wood manufactures(632)	1996.8	48.1	50.3	30.8	7.9	4.2	0.0
Paper and paperboard(641)	2039.4	99.3	0.5	0.0	0.0	0.0	0.0
Articles of pulp, paper or paperboard(642)	4770.6	98.2	3.6	0.0	3.6	0.0	0.0
Furniture(821)	930.6	98.9	0.4	0.1	0.2	0.0	0.0
TEXTILES AND CLOTHING							
Wool and other animal hair(262)	1415.5	0.2	99.8	0.0	99.8	0.0	0.0
Cotton(263)	1308.1	0.3	99.2	0.0	99.2	0.0	0.0
Jute(264)	0.7	15.8	84.2	84.0	0.2	0.0	0.0
Vegetable fibres, flax and hemp(265)	18179.3	11.9	76.9	22.3	34.6	0.0	0.0
Synthetic and regenerated fibres(266)	2.0	85.9	0.0	0.0	0.0	0.0	0.0
Textile yarn and thread(651)	228.4	99.7	0.3	0.0	0.3	0.0	0.0
Woven cotton fabrics(652)	78.5	94.7	3.6	2.7	0.0	0.0	0.0
Woven textile fabrics(653)	320.3	85.5	13.8	0.0	4.3	0.0	0.0
Made-up articles chiefly of textiles(656)	1081.5	90.2	68.8	65.0	2.6	0.0	0.0
Travel bags, handbags, etc.(831)	26.4	33.7	66.3	2.2	0.0	0.0	0.0
Clothing, excluding leather(841 less 8413)	1212.1	93.7	5.9	2.3	2.7	0.1	0.0
Calf leather(6113)	2.6	100.0	0.0	0.0	0.0	0.0	0.0
LEATHER AND PRODUCTS							
Other leather, including artificial(611 less 6113)	1912.4	4.6	95.4	0.0	95.4	0.0	0.0
Leather manufactures(612)	26.2	86.5	13.5	0.0	13.5	0.0	0.0
Apparel and accessories of leather(8413)	1.9	77.5	7.0	0.0	2.2	0.0	0.0
Footwear(85)	639.3	99.9	0.1	0.0	0.1	0.0	0.0
BUILDING MATERIALS AND GLASS							
Lime, cement, fabricated building materials(661)	37727.6	88.3	1.4	0.7	0.2	0.0	0.0
Construction and refractory materials of clay(662)	53.8	99.8	0.0	0.0	0.0	0.0	0.0
Glass(664)	159.8	99.8	0.0	0.0	0.0	0.0	0.0
Glassware and pottery(665/6)	579.4	95.6	4.1	0.0	3.5	0.0	0.0

*****> continued

Table A-10 (continued)

Description of traded goods (SITC)	World total (in 1000 current US \$)	Developing countries	Developed market economies				Centrally planned economies
			Total	USA	EEC	Japan	
(Percent of world total)							
IRON AND STEEL							
Iron ore and concentrates(281)	0.1	100.0	0.0	0.0	0.0	0.0	0.0
Iron and steel scrap(282)	17.9	89.5	10.3	0.0	10.3	0.0	0.0
Pig iron and sponge(671)	0.3	57.3	0.0	0.0	0.0	0.0	0.0
Ingots and other primary forms(672)	5.9	27.9	0.0	0.0	0.0	0.0	0.0
Bars, rods, shapes, sections(673)	1647.6	99.9	0.0	0.0	0.0	0.0	0.0
Universals, plates and sheets(674)	1263.8	99.1	0.7	0.0	0.5	0.2	0.0
Hoop and strip(675)	18.7	99.7	0.0	0.0	0.0	0.0	0.0
Iron and steel wire(677)	549.5	100.0	0.0	0.0	0.0	0.0	0.0
Tubes, pipes and fittings(678)	649.2	99.1	0.0	0.0	0.0	0.0	0.0
Unworked castings and forgings(679)	10.8	100.0	0.0	0.0	0.0	0.0	0.0
NON-FERROUS METALS							
Non-ferrous ore and concentrates(283)	16.1	14.8	85.2	0.0	85.2	0.0	0.0
Copper, blister, refined, alloys(6821)	11.7	100.0	0.0	0.0	0.0	0.0	0.0
Copper bars, shapes, sections, wire, etc.(6822)	5.8	81.2	29.3	0.0	29.5	0.0	0.0
Aluminium, unwrought or worked(684)	159.7	99.5	0.0	0.0	0.0	0.0	0.0
Lead, unwrought or worked(685)	0.8	6.8	0.0	0.0	0.0	0.0	0.0
Zinc, unwrought or worked(686)	57.3	99.9	0.0	0.0	0.0	0.0	0.0
Tin and alloys, unwrought or worked(687)	2.9	100.0	0.0	0.0	0.0	0.0	0.0
Wire products, e.g. cables, ropes(693)	347.8	98.8	0.5	0.0	0.5	0.0	0.0
SELECTED CAPITAL GOODS							
Hand tools used in agriculture(6951)	826.2	99.6	0.0	0.0	0.0	0.0	0.0
Tools for use in hand or machine(6952)	128.0	98.5	0.0	0.0	0.0	0.0	0.0
Power generating machinery, non-electric(711)	19.3	95.1	1.2	0.0	1.2	0.0	0.0
Agricultural machinery(7121/2)	141.5	95.8	0.0	0.0	0.0	0.0	0.0
Dairy equipment(7123)	...	...	...	...	...	...	...
Tractors(7125)	...	...	...	...	...	...	...
Office machines(714)	16.5	66.8	33.2	0.0	33.2	0.0	0.0
Metal working machinery(715)	36.4	43.4	56.5	0.0	0.0	0.0	0.0
Textile and leather machinery(717)	13.4	100.0	0.0	0.0	0.0	0.0	0.0
Machines for paper, pulp and paper articles(7181)	0.7	...	...	...	...	...	...
Industrial food-processing machinery(7183)	658.2	91.2	8.8	0.0	8.7	0.0	0.0
Machine tools for working minerals, wood, etc.(7195)	1.4	89.4	10.6	0.0	10.6	0.0	0.0
Electrical power machinery and switchgear(722)	121.8	96.5	1.1	0.0	1.1	0.0	0.0
MAJOR CONSUMER DURABLES							
Commercial road vehicles(732 less 7321)	251.6	98.9	1.1	0.0	0.9	0.2	0.0
Passenger motor cars(7321)	...	...	...	...	...	...	...
Television and radio sets(7241/2)	16.5	3.2	96.8	0.0	0.0	0.0	0.0
Domestic electrical equipment(725)	19.9	92.0	0.0	0.0	0.0	0.0	0.0
TOTAL OF ABOVE	286370	71.9	7.7	0.5	4.0	1.0	0.7
TOTAL OF ALL MERCHANDISE (SITC 0 to 9)	947283	40.0	52.7	6.1	39.8	0.7	0.7

Source: Statistics and Survey Unit, UNIDO. Based on data supplied by the UN Statistical Office, with estimates by the UNIDO Secretariat.

Note: Percentages may not add to 100.0 due to the fact that countries report trade to/from "unspecified areas". Selection of products shown in this table was based on the definition of the manufacturing sector used for production statistics (i.e. the ISIC) and the associated raw material supplies. Thus, not all products are regarded as manufactures according to the conventional definitions of manufactured trade (e.g. SITC 5 to 8 less 88).

ANNEX B

MANUFACTURING PROJECTS SEEKING EXTERNAL ASSISTANCE

Annex B. Manufacturing projects seeking external assistance^{a/}, 1987

CONTROL NUMBER: 003140
ISIC: 3411
PROJECT NUMBER: KEN/100/V/87-02 COUNTRY: Kenya
PROJECT TITLE: Manufacture of paper from cotton, textile mills and paper wastes
PRODUCT & CAPACITY: Superior quality coloured decorative letter-heads, printing paper, white drawing paper, manila cartridge paper, rotary paper and paper of durable and permanent quality, kraft wrapping paper: 5 tons/day
COOPERATION SOUGHT: EQY, LIC, AFM, SOT
TOTAL PROJECT COST: US\$ 709,400 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 870526
SPONSOR:
Mr. Owino-Okwero
Dino Industries Ltd.
P.O. Box 51736
Nairobi
Kenya

CONTROL NUMBER: 003141
ISIC: 3115
PROJECT NUMBER: KEN/101/V/87-02 COUNTRY: Kenya
PROJECT TITLE: Recycled oil
PRODUCT & CAPACITY: Installed capacity for distilling 700 kg of used oil/hour. At 86 per cent capacity, the plant produces 3.6 million litres of base stock/year
COOPERATION SOUGHT: EQY, LIC, SOT
TOTAL PROJECT COST: US\$ 1,632,624 PROJECT IS: Expansion
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 870526
SPONSOR:
Nairobi Oil Products
P.O. Box 48426
Nairobi
Kenya

CONTROL NUMBER: 003142
ISIC: 3699
PROJECT NUMBER: KEN/102/V/87-02 COUNTRY: Kenya
PROJECT TITLE: Manufacture of tiles (marble terrazzo, cement)
PRODUCT & CAPACITY: Reconstituted marble tiles, terrazzo tiles, cement tiles: approx. 150,000 sq m/year
COOPERATION SOUGHT: EQY, LIC, SOT
TOTAL PROJECT COST: US\$ 1,568,000 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 870526
SPONSOR:
Mr. L.M. Muigai
Terracon Manufacturers Limited
P.O. Box 30730
Nairobi
Kenya

CONTROL NUMBER: 003143
ISIC: 3113
PROJECT NUMBER: KEN/103/V/87-02 COUNTRY: Kenya
PROJECT TITLE: Fruit processing
PRODUCT & CAPACITY: Jams, marmalades, juice: 46,000 cans (0.5 kg each)/month
COOPERATION SOUGHT: LNS, LIC, SOT, AFM, X
TOTAL PROJECT COST: US\$ 226,108 PROJECT IS: New
STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
PROJECT STATUS: Active AS ON (DATE): 870526
SPONSOR:
Mr. Sammy Mwangi
Conzuki Company Ltd.
P.O. Box 59057
Nairobi
Kenya

CONTROL NUMBER: 003144
 ISIC: 3122
 PROJECT NUMBER: KEN/104/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Animal feeds
 PRODUCT & CAPACITY: Cattle feed (dairy meal), pig feed (sow and weaner, creep feed, pig finisher), poultry feed (chick and duck mash, layers mash, broiler starter, broiler finisher, growers mash): 45 tons/day
 COOPERATION SOUGHT: LNS, LIC, SOT
 TOTAL PROJECT COST: US\$ 791,041
 STUDY AVAILABLE: Yes
 PROJECT STATUS: Active
 SPONSOR: Mr. Simon Ikamba
 Karatina Animal Feeds Co. Ltd.
 P.O. Box 1237
 Karatina
 Kenya

CONTROL NUMBER: 003145
 ISIC: 3115
 PROJECT NUMBER: KEN/105/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Castor oil processing
 PRODUCT & CAPACITY: Castor oil: 900,000 litres/year
 COOPERATION SOUGHT: LNS, LIC, SOT, TEX, TRX, AFM
 TOTAL PROJECT COST: US\$ 148,700
 STUDY AVAILABLE: Yes
 PROJECT STATUS: Active
 SPONSOR: Mr. Joel Njeru Wachira
 Embu Industries Co. Ltd.
 P.O. Box 522
 Embu
 Kenya

CONTROL NUMBER: 003146
 ISIC: 3691
 PROJECT NUMBER: KEN/106/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Manufacturing of heavy clay products
 PRODUCT & CAPACITY: Roof tiles, bricks, clay pipes, floor tiles: 500,000 pieces/year
 COOPERATION SOUGHT: EQY, LNS, LIC, SOT
 TOTAL PROJECT COST: US\$ 250,000
 STUDY AVAILABLE: Yes
 PROJECT STATUS: Active
 SPONSOR: Mr. Hunter O. Kiaye
 Nyanza Clayworks
 P.O. Box 226
 Homa Bay
 Kenya

CONTROL NUMBER: 003135
 ISIC: 3540
 PROJECT NUMBER: KEN/107/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Combustible briquettes from rice husks
 PRODUCT & CAPACITY: Uncarbonized combustible briquettes: 500-750 kg/hour
 COOPERATION SOUGHT: EQY, LIC, SOT, AFM, TRX
 TOTAL PROJECT COST: US\$ 135,388
 STUDY AVAILABLE: Yes
 PROJECT STATUS: Active
 SPONSOR: Mr. C.K. Mathu
 C.K. Mathu and Co.
 P.O. Box 47630
 Nairobi
 Kenya

CONTROL NUMBER: 003147
 ISIC: 3132
 PROJECT NUMBER: KEN/108/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Manufacture of cashew apple wine
 PRODUCT & CAPACITY: Cashew apple wine: 18,000 litres/year
 COOPERATION SOUGHT: LNS, LIC, SOT, AFM, TRX
 TOTAL PROJECT COST: US\$ 389,467 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. Ng'ethe Njoroge
 S.G.B. Ventures Ltd.
 P.O. Box 30364
 Nairobi
 Kenya

CONTROL NUMBER: 003148
 ISIC: 3699
 PROJECT NUMBER: KEN/109/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Concrete roofing tiles
 PRODUCT & CAPACITY: Concrete roofing tiles: 1.5 million tiles/year
 COOPERATION SOUGHT: LNS, LIC, SOT, AFM, TRX
 TOTAL PROJECT COST: US\$ 2,903,580 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. John Arunga
 Nyanza Tile Manufacturers
 P.O. Box 1084
 Kisumu
 Kenya

CONTROL NUMBER: 003149
 ISIC: 3819
 PROJECT NUMBER: KEN/110/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Aluminium household utensils
 PRODUCT & CAPACITY: Aluminium holloware household utensils: 120 tons/year
 COOPERATION SOUGHT: LNS, LIC, SOT, AFM
 TOTAL PROJECT COST: US\$ 211,111 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. Samson O. Were
 Homestead Industries Co. Ltd.
 P.O. Box 49300
 Nairobi
 Kenya

CONTROL NUMBER: 003150
 ISIC: 3231
 PROJECT NUMBER: KEN/111/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Leather tannery
 PRODUCT & CAPACITY: Finished leather: 300 hides or 1,000 goats skins/day
 COOPERATION SOUGHT: LNS, LIC, SOT, TRX
 TOTAL PROJECT COST: N.A. PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. L. O. Amayo
 Happy Twins Commercial
 Enterprise Ltd.
 P.O. Box 59842
 Nairobi
 Kenya

CONTROL NUMBER: 003151
 ISIC: 3121
 PROJECT NUMBER: KEN/112/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Cashew nutshell liquid utilization
 PRODUCT & CAPACITY: Cashew nutshell liquid (CNSL): 3,150 tons/year
 COOPERATION SOUGHT: EQY, LNS, LIC, SOT, AFM
 TOTAL PROJECT COST: N.A. PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Lt. Col. Gatonye
 Kenya Shipboat Engineers Ltd.
 P.O. Box 55242
 Nairobi
 Kenya

CONTROL NUMBER: 003152
 ISIC: 3116
 PROJECT NUMBER: KEN/113/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Maize meal/flour for human consumption and animal feeds
 PRODUCT & CAPACITY: Maize meal/flour (sifted grades 1, 2 and 3, unsifted grades
 1, 2 and 3 for human consumption): 18,000 kg/day
 Animal feeds (for cattle, pigs, poultry, dogs and cats):
 2,700 kg/day
 COOPERATION SOUGHT: LNS, LIC, SOT, TRX
 TOTAL PROJECT COST: US\$ 362,300 PROJECT IS: Moderniz.
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. Morris Guchura Njage
 Kivanga Estates Limited
 P.O. Box 94
 Embu
 Kenya

CONTROL NUMBER: 003153
 ISIC: 3116
 PROJECT NUMBER: KEN/114/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Industrial processing of stable products from sorghum and
 millet
 PRODUCT & CAPACITY: Sorghum semolina, sorghum flour, polished sorghum, pre-
 cooked sorghum flour, millet flour, malted millet flour,
 composites of sorghum and millet: 0.5 tons/hour
 COOPERATION SOUGHT: LNS, LIC, SOT, AFM
 TOTAL PROJECT COST: US\$ 50,250 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. Javio Malik
 Automec Ltd.
 P.O. Box 12178
 Nairobi
 Kenya

CONTROL NUMBER: 003154
 ISIC: 3133
 PROJECT NUMBER: KEN/115/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Sorghum beer
 PRODUCT & CAPACITY: Lager beer: 10 million litres/year
 COOPERATION SOUGHT: LNS, LIC, SOT, TRX, AFM
 TOTAL PROJECT COST: N.A. PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. Hillary N'Gwend
 Stellascope Food Company Ltd.
 P.O. Box 42271
 Nairobi
 Kenya

CONTROL NUMBER: 003155
 ISIC: 3115
 PROJECT NUMBER: KEN/116/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Fish canning
 PRODUCT & CAPACITY: Fish canning: 10,000 cans/year (each can being 0.5 kg)
 COOPERATION SOUGHT: LNS, LIC, AFM, SOT
 TOTAL PROJECT COST: US\$ 375,938 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. Jactone Openda Wajelya
 Homa-Bay Fish Cannery
 P.O. Box 50333
 Nairobi
 Kenya

CONTROL NUMBER: 003156
 ISIC: 3231
 PROJECT NUMBER: KEN/117/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Tannery factory in Western Kenya
 PRODUCT & CAPACITY: Tanned leather: 60,000 pieces/year
 COOPERATION SOUGHT: LNS, LIC, SOT, AFM
 TOTAL PROJECT COST: US\$ 1,758,530 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Lake Basin Development Authority
 P.O. Box 1516
 Kisumu
 Kenya

CONTROL NUMBER: 003157
 ISIC: 3691
 PROJECT NUMBER: KEN/118/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Bricks and roofing tiles
 PRODUCT & CAPACITY: Common bricks: 5,400,000 pieces/year
 Roofing tiles: 1,320,000 pieces/year
 COOPERATION SOUGHT: EGY, LNS, LIC, SOT
 TOTAL PROJECT COST: US\$ 2,117,750 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Lake Basin Development Authority
 P.O. Box 1516
 Kisumu
 Kenya

CONTROL NUMBER: 003158
 ISIC: 3115
 PROJECT NUMBER: KEN/119/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Edible oil
 PRODUCT & CAPACITY: 12,000 tons/year sunflower seeds are processed into edible oil
 COOPERATION SOUGHT: LNS, LIC, SOT, AFM
 TOTAL PROJECT COST: US\$ 9,142,300 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 The Managing Director
 Lake Basin Development Authority
 P.O. Box 1516
 Kisumu
 Kenya

CONTROL NUMBER: 003159
 ISIC: 3115
 PROJECT NUMBER: KEN/121/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Edible oil
 PRODUCT & CAPACITY: Edible oil: 2.5 tons/day
 COOPERATION SOUGHT: LNS, LIC, SOT, AFM
 TOTAL PROJECT COST: US\$ 5,154,200 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. Adipo Okuome
 Andre and Co.
 P.O. Box 55848
 Nairobi
 Kenya

CONTROL NUMBER: 003160
 ISIC: 3513
 PROJECT NUMBER: KEN/122/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: P.V.C. coated fabrics, films and glue
 PRODUCT & CAPACITY: P.V.C. films: 1.5 million metres/year
 P.V.C. coated fabrics: 720,000 metres/year
 P.V.C. glue: 200 tons/year
 COOPERATION SOUGHT: LIC, SOT, AFM
 TOTAL PROJECT COST: US\$ 4,550,716 PROJECT IS: Moderniz.
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. D.K. Mwangi
 Seracoatings Ltd.
 P.O. Box 48425
 Nairobi
 Kenya

CONTROL NUMBER: 003161
 ISIC: 3113
 PROJECT NUMBER: KEN/123/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Vegetable processing
 PRODUCT & CAPACITY: Dehydration processing of 33,000 tons/year of carrots,
 onions, leeks, capsicum beans and potatoes
 COOPERATION SOUGHT: LIC, SOT, AFM, TRX, MAX
 TOTAL PROJECT COST: US\$ 3,978,000 PROJECT IS: Rehabil.
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. E.K. Majani
 Pan Vegetable Processor Ltd.
 P.O. Box 248
 Naivasha
 Kenya

CONTROL NUMBER: 003162
 ISIC: 3691
 PROJECT NUMBER: KEN/124/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Ceramic manufacturing
 PRODUCT & CAPACITY: Ceramic crockery: 5,200 pieces/daily
 Wall-tiles: 12 million pieces/year
 Sanitary ware: 140 pieces/daily
 COOPERATION SOUGHT: LIC, SOT, AFM, TEX
 TOTAL PROJECT COST: US\$ 2,188,000 PROJECT IS: Moderniz.
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. S.G. Karanja
 Ceramic Industries of E.A. Ltd.
 P.O. Box 48720
 Nairobi
 Kenya

CONTROL NUMBER: 003163
 ISIC: 3699
 PROJECT NUMBER: KEN/125/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Finished diatomite products
 PRODUCT & CAPACITY: Calcined diatomite products (filter aids, filler aids, kens11 90): 3,000 tons/year
 Uncalcined diatomite products: 5,000 tons/year
 COOPERATION SOUGHT: LIC, SOT, AFM
 TOTAL PROJECT COST: US\$ 113,506 PROJECT IS: Moderniz.
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. R.G. Terry
 African Diatomite
 Industries Ltd.
 P.O. Box 32
 Gilgil
 Kenya

CONTROL NUMBER: 003164
 ISIC: 3831
 PROJECT NUMBER: KEN/126/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Distribution and power transformers
 PRODUCT & CAPACITY: Three-phase distribution transformers: 50-2,500 kVA
 Single-phase distribution transformers: 25-630 kVA
 Step-up power transformers: 50-2,500 kVA
 COOPERATION SOUGHT: EQY, AFM
 TOTAL PROJECT COST: US\$ 3,850,790 PROJECT IS: New
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. P.J.N. Simba
 Industrial and Commercial
 Development Corporation (ICDC)
 P.O. Box 45519
 Nairobi
 Kenya

CONTROL NUMBER: 003165
 ISIC: 3811
 PROJECT NUMBER: KEN/127/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Stainless steel cutlery
 PRODUCT & CAPACITY: Spoons: 1,929,000 pieces/year
 Knives: 224,000 pieces/year
 Forks: 643,000 pieces/year
 COOPERATION SOUGHT: LIC, SOT, AFM, TRX, TEX
 TOTAL PROJECT COST: US\$ 719,900 PROJECT IS: Rehab11.
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. J.P.N. Simba
 Industrial and Commercial
 Development Corporation (ICDC)
 P.O. Box 45519
 Nairobi
 Kenya

CONTROL NUMBER: 003166
 ISIC: 3211
 PROJECT NUMBER: KEN/128/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Textile products
 PRODUCT & CAPACITY: Gents' shirts, ladies' wear, children's wear, baby wear:
 approx. 107,000 pieces/month
 COOPERATION SOUGHT: EQY, LNS, AFM
 TOTAL PROJECT COST: US\$ 369,000 PROJECT IS: Moderniz.
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. Kimondo
 Yuken Textile Industry Ltd.
 P.O. Box 1585
 Thika
 Kenya

CONTROL NUMBER: 003167
 ISIC: 3113
 PROJECT NUMBER: KEN/129/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Pineapple and fruit processing
 PRODUCT & CAPACITY: Fresh pineapples for export: 5,250 tons/year
 Fresh pineapple juice for export: 6,500 tons/year
 Fresh citrus fruit juice: 2,000 tons/year
 Citrus fruits for baby food: 360 tons/year
 Pineapples for baby food: 250 tons/year
 Cassava for baby food: 100 tons/year
 Sugar for baby food: 50 tons/year
 COOPERATION SOUGHT: EQY, LNS, AFM
 TOTAL PROJECT COST: N.A. PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. J.P.N. Simba
 Industrial and Commercial
 Development Corporation (ICDC)
 P.O. Box 45519
 Nairobi
 Kenya

CONTROL NUMBER: 003168
 ISIC: 3540
 PROJECT NUMBER: KEN/130/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Combustible briquettes from coffee musks
 PRODUCT & CAPACITY: Synthetic charcoal: 1,920 tons of briquettes/year
 COOPERATION SOUGHT: LNS, LIC, SOT, AFM, TRX
 TOTAL PROJECT COST: US\$ 135,740 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. H. Okello
 Kano Agrotech
 P.O. Box 47630
 Nairobi
 Kenya

CONTROL NUMBER: 003169
 ISIC: 3115
 PROJECT NUMBER: KEN/131/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Fish meal and fish oil processing
 PRODUCT & CAPACITY: Fish meal: 1,440,000 kg/year
 Refined fish oil: 360,000 litres/year
 COOPERATION SOUGHT: LNS, LIC, SOT, AFM
 TOTAL PROJECT COST: US\$ 885,443 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. Hezron Ooro Olulu
 Hezron O. Olulu and Co. Ltd.
 P.O. Box 74277
 Nairobi
 Kenya

CONTROL NUMBER: 003170
 ISIC: 3511
 PROJECT NUMBER: KEN/132/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Caustic soda
 PRODUCT & CAPACITY: Caustic soda (sodium hydroxide): 300,000 tons/year
 COOPERATION SOUGHT: EQY, LNS, LIC, SOT
 TOTAL PROJECT COST: US\$ 20,000,000 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. A.C. Kiptoon
 Chauhan Kiptoon and Partners
 P.O. Box 48681
 Nairobi
 Kenya

CONTROL NUMBER: 003171
 ISIC: 3851
 PROJECT NUMBER: KEN/133/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Mathematical instruments
 PRODUCT & CAPACITY: Complete geometric sets (including protractors, dividers, compasses, set-squares and containers): 250,000-1,000,000 sets/year
 COOPERATION SOUGHT: LNS, LIC, SOT
 TOTAL PROJECT COST: US\$ 240,000 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. A.C. Kiptoon
 Chauhan Kiptoon and Partners
 P.O. Box 48681
 Nairobi
 Kenya

CONTROL NUMBER: 003172
 ISIC: 3710
 PROJECT NUMBER: KEN/134/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Small-scale iron foundry
 PRODUCT & CAPACITY: Clean castings: 400 tons/years
 COOPERATION SOUGHT: LNS, LIC, SOT
 TOTAL PROJECT COST: US\$ 270,000 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. A.C. Kiptoon
 Chauhan Kiptoon and Partners
 P.O. Box 48681
 Nairobi
 Kenya

CONTROL NUMBER: 003173
 ISIC: 3710
 PROJECT NUMBER: KEN/135/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Recycling of tin-plate scrap
 PRODUCT & CAPACITY: Recycling of tinned steel scrap: 5,000 tons/year
 COOPERATION SOUGHT: LNS, LIC, SOT
 TOTAL PROJECT COST: US\$ 460,000 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870526
 SPONSOR:
 Mr. A.C. Kiptoon
 Chauhan Kiptoon and Partners
 P.O. Box 48681
 Nairobi
 Kenya

CONTROL NUMBER: 003174
 ISIC: 3233
 PROJECT NUMBER: KEN/136/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Leather goods
 PRODUCT & CAPACITY: Handbags, garments and other leather goods: 1-1.5 million pieces/year
 COOPERATION SOUGHT: EQY, LIC, SOT, AFM, TEX
 TOTAL PROJECT COST: US\$ 2,500,000 PROJECT IS: New
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. S.H. Poonawala
 Industrial Promotion
 Services (K) Ltd.
 P.O. Box 30500
 Nairobi
 Kenya

CONTROL NUMBER: 003175
 ISIC: 3114
 PROJECT NUMBER: KEN/137/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Fillets from Nile perch and fish meal
 PRODUCT & CAPACITY: Fillets from Nile perch: 40-50 tons/day
 Processing of fish heads, offals and bones into fish meal
 COOPERATION SOUGHT: EQY, LIC, SOT, TEX, MKX
 TOTAL PROJECT COST: US\$ 4,000,000 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. S.H. Poonawala
 Industrial Promotion
 Services (Kenya) Limited
 P.O. Box 30500
 Nairobi
 Kenya

CONTROL NUMBER: 003176
 ISIC: 3114
 PROJECT NUMBER: KEN/138/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Prawn farming and processing
 PRODUCT & CAPACITY: Culture and processing of Penaeus monodon prawns: 250
 tons/year
 COOPERATION SOUGHT: EQY, LIC, SOT, AFM, TEX
 TOTAL PROJECT COST: US\$ 2,055,000 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. S.H. Poonawala
 Industrial Promotion
 Services (Kenya) Limited
 P.O. Box 30500
 Nairobi
 Kenya

CONTROL NUMBER: 003177
 ISIC: 3839
 PROJECT NUMBER: KEN/139/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Production and processing of crayfish
 PRODUCT & CAPACITY: Frozen crayfish tails and crayfish tails in brine, packed
 in glass jars: 400 tons/year
 COOPERATION SOUGHT: EQY, LIC, AFM, SOT, TEX
 TOTAL PROJECT COST: US\$ 1,800,000 PROJECT IS: New
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. S.H. Poonawala
 Industrial Promotion
 Services (Kenya) Limited
 P.O. Box 30500
 Nairobi
 Kenya

CONTROL NUMBER: 003178
 ISIC: 3839
 PROJECT NUMBER: KEN/140/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Dry cell batteries
 PRODUCT & CAPACITY: Leak-proof dry cell batteries for torches, radios,
 calculators and other battery operated electronic
 equipment (international standards): 20 million
 pieces/year
 COOPERATION SOUGHT: EQY, LIC, SOT, AFM, TEX
 TOTAL PROJECT COST: US\$ 4,000,000 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. S.H. Poonawala
 Industrial Promotion
 Services (Kenya) Limited
 P.O. Box 30500
 Nairobi
 Kenya

CONTROL NUMBER: 003179
 ISIC: 3115
 PROJECT NUMBER: KEN/141/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: High protein meal from tannery waste
 PRODUCT & CAPACITY: 18 tons/day of untanned wastes from tanneries and 2 tons/day of blood/feathers/skulls/horns and hooves to be processed into high protein meal for animal feeds and tallow used for soap manufacture
 COOPERATION SOUGHT: EQY, LIC, SOT, AFM, TEX
 TOTAL PROJECT COST: US\$ 1,500,000 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. S.H. Poonawala
 Industrial Promotion
 Services (Kenya) Limited
 P.O. Box 30500
 Nairobi
 Kenya

CONTROL NUMBER: 003180
 ISIC: 3240
 PROJECT NUMBER: KEN/142/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Leather footwear uppers
 PRODUCT & CAPACITY: Shoe uppers for export: 1.2-1.5 million pairs/year
 COOPERATION SOUGHT: EQY, LIC, SOT, AFM, TEX
 TOTAL PROJECT COST: US\$ 2,500,000 PROJECT IS: New
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. S.H. Poonawala
 Industrial Promotion
 Services (Kenya) Limited
 P.O. Box 30500
 Nairobi
 Kenya

CONTROL NUMBER: 003181
 ISIC: 3512
 PROJECT NUMBER: KEN/143/V/87-02 COUNTRY: Kenya
 PROJECT TITLE: Pesticides
 PRODUCT & CAPACITY: Technical pesticide material: 500-1,000 tons/year
 Liquid formulation for commonly used pesticides: 200,000 litres/year
 COOPERATION SOUGHT: EQY, LIC, SOT, TEX
 TOTAL PROJECT COST: US\$ 2,050,000 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. S.H. Poonawala
 Industrial Promotion
 Services (Kenya) Limited
 P.O. Box 30500
 Nairobi
 Kenya

CONTROL NUMBER: 003182
 ISIC: 3692
 PROJECT NUMBER: KEN/144/V/87-03 COUNTRY: Kenya
 PROJECT TITLE: Cement building blocks
 PRODUCT & CAPACITY: Hollow building blocks from saw-dust: 6,000 blocks/shift
 Indoor and outdoor building plaster: 20 tons/shift
 Levelling compound (used as base for plaster): 30 tons/shift
 COOPERATION SOUGHT: LNS, LIC, SOT
 TOTAL PROJECT COST: US\$ 1,672,097 PROJECT IS: New
 STUDY AVAILABLE: Yes LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. Githumbi Gachuhi
 Tharmit Kaiyaba (K) Ltd.
 P.O. Box 290
 Nariyuki
 Kenya

CONTROL NUMBER: 003183
 ISIC: 3819
 PROJECT NUMBER: KEN/145/V/87-03 COUNTRY: Kenya
 PROJECT TITLE: Manufacture of beads
 PRODUCT & CAPACITY: Beads for jewellery and other purposes: capacity to be determined
 COOPERATION SOUGHT: EOY, LIC, SOT, AFM, TRX, MAX
 TOTAL PROJECT COST: N.A. PROJECT IS: New
 STUDY AVAILABLE: No LOCAL SPONSOR: Yes
 PROJECT STATUS: Active AS ON (DATE): 870527
 SPONSOR:
 Mr. K. Dar
 Khaledah Dar
 P.O. Box 46725
 Nairobi
 Kenya

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- a/ This list includes industrial projects in Kenya for which foreign co-operation, such as joint venture or other partnerships, acquisition of technology, management expertise and marketing assistance, is sought. Enterprises interested in the possibility of participating in any of these projects can obtain more detailed information, including the name and address of the sponsor, from UNIDO Investment Promotion Service. This information usually takes the form of a standard industrial investment project questionnaire. Copies of studies, when these are available, may then be obtained from the project sponsor. UNIDO does not accept responsibility for accuracy or completeness.

ANNEX C

**THE COMPLETED, OPERATIONAL AND/OR APPROVED TECHNICAL CO-OPERATION
PROJECTS OF UNIDO**

The completed technical co-operation projects of UNIDO

Republic of KENYA

(1)

since 1972

<u>Backstopping Responsibility</u>	<u>Spec.Act./ All.Acc.Code</u>	<u>Project Number</u>	<u>Project Title</u>
IO/IIS/INFR	31.1.02	TS/KEN/74/004	Study mission to Ethiopian Standards Institute
IO/IIS/INFR	31.3.B	SI/KEN/75/318	Preparatory mission ceiling on an industrial information system
IO/IIS/INFR	31.3.J	DP/KEN/75/029	Assistance to Industrial Research and Consultancy Unit
IO/IIS/INFR	31.3.J	DP/KEN/78/014	Study tour of Industrial Research Institute
IO/IIS/INFR	31.3.J	TF/KEN/79/004	Assistance to Industrial Research and Consultancy Unit (IRCU) (multifund to DP/KEN/75/029)
IO/IIS/INFR	31.4.01	TS/KEN/74/001	Small-scale advisory mission for Bandora housing scheme
IO/IIS/INFR	31.3.D	AR/KEN/76/003	Appraisal mission to Kenya
IO/IIS/INFR	31.3.D	SI/KEN/75/816	Short-term assistance to small-scale industry programme
IO/IIS/INFR	31.3.L	RP/KEN/81/002	Follow-up to workshop on entrepreneurial development, Kenya Industrial Training Institute (KITI)
IO/IIS/INFR	J12103	DP/KEN/77/006	Assistance to small-scale industries, Kenya Industrial Estates Limited
IO/IIS/INFR	J12103	DP/KEN/81/017	Assistance to small-scale industries, Kenya Industrial Estates Limited (phase II) (continuation of DP/KEN/77/006)
IO/IIS/INFR	J12103	DP/KEN/85/002	Industrial estate management and maintenance
IO/IIS/INFR	31.3.M	AR/KEN/74/002	Market development and development industries (financed by SIDA - Executing agency: ITC)
IO/IIS/INFR	32.3.03	IS/KEN/73/004	Advisory services and international contract manufacturing
IO/IIS/IMR	31.4.B	DP/KEN/78/012	Assistance to the Ministry of Commerce and Industry
IO/IIS/IMR	31.7.A	DP/KEN/75/027	Development of timber engineering industries, preparatory assistance

Annex C (continued)

Republic of KENYA
(2)

<u>Backstopping Responsibility</u>	<u>Spec.Act.Code/ All.Acc.Code</u>	<u>Project Number</u>	<u>Project Title</u>
IO/IIS/IMR	31.7.A	DP/KEN/77/007	Development of new timber products
IO/IIS/IMR	31.7.A	IS/KEN/74/035	Development and commercialization of prefabricated modular timber bridges
IO/IIS/IMR	31.7.A	SI/KEN/74/835	Development and commercialization of prefabricated modular timber bridges
IO/IIS/IMR	31.7.A	TF/KEN/74/003	Construction and building materials
IO/IIS/IMR	31.7.A	TF/KEN/78/002	Development of new timber products
IO/IIS/IMR	31.7.A	VC/KEN/76/051	Development of timber preservation in rural areas through a mobile demonstration unit
IO/IIS/PLAN	31.2.A	DP/KEN/70/521	Industrial survey and studies
IO/IIS/PLAN	31.2.A	DP/KEN/74/007	Assistance to Industrial Survey and Promotion Centre, strategy and policy for industry, phase I and II
IO/IIS/PLAN	J12413	DP/KEN/80/001	Assistance to the Ministry of Industry (continuation of DP/KEN/74/007)
IO/T/AGRO	00.0	TS/KEN/69/001	Industrial processing of maize
IO/T/AGRO	31.7.C	SI/KEN/81/801	Assistance to Uplands Bacon Factory
IO/T/AGRO	31.7.D	US/KEN/78/204	Leather quality control laboratory
IO/T/ENG	31.9.B	DP/KEN/75/010	Development and manufacture of low-cost water-lifting devices
IO/T/ENG	J13314	SI/KEN/84/801	Preparatory assistance to strengthen the boat-building industry
IO/T/ENG	31.9.B	US/KEN/78/268	Technical evaluation of low-powered tractors
IO/T/ENG	31.9.Z	IS/KEN/74/038	Study mission to India on transfer of industrial technology
IO/T/CHEM	32.1.A	SI/KEN/82/801	Development of a third cement factory in Kenya

Annex C (continued)

Republic of KENYA

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<u>Backstopping Responsibility</u>	<u>Spec.Act.Code/ All.Acc.Code</u>	<u>Project Number</u>	<u>Project Title</u>
IO/T/CHEM	32.1.F	DP/KEN/75/009	Consulting services for implemen- ting a fertilizer plant
IO/T/CHEM	32.1.F	DP/KEN/83/007	Consulting services for implemen- ting of a fertilizer plant
IO/T/CHEM	32.1.F	IS/KEN/75/007	Consulting services for implementing fertilizer project
IO/T/CHEM	32.1.E	SI/KEN/79/801	Preparatory mission to develop plan for paper conversion industries
IO/T/CHEM	32.1.C	SI/KEN/79/803	Production of power alcohol from molasses
IO/T/CHEM	32.1.C	SI/KEN/78/801	Development of solar salt production
IO/SD/FEAS	31.6.A	IS/KEN/75/002	Feasibility of manufacturing wind-powered water-pumping equipment in Mbita Division, South Nyanza
IO/SD/FEAS	31.6.A	SI/KEN/75/802	Feasibility of manufacturing wind-powered water-pumping equipment in Mbita Division, South Nyanza
IO/SD/FEAS	31.6.A	US/KEN/83/227	Support in financial analysis for iron and steel project
IO/SD/FEAS	32.3.04	TS/KEN/73/001	Advisory services of industrial free zones
IO/SD/TRNG	31.5.B	RP/KEN/76/001	Planning and appraisal of industrial projects
IO/SD/TRNG	31.5.B	RP/KEN/76/004	Industrial training
IO/SD/TRNG	31.5.B	RP/KEN/82/001	Training design and management
IO/SD/TRNG	31.5.C	DP/KEN/78/011	Training course on project evaluation and transfer pricing (MCI)
PPD/SPA/ECDC	30.9.Z	RP/KEN/78/002	TCDC: LATU assistance to Kenya in the field of leather industry, preparatory mission
PPD/SPA/ECDC	30.9.Z	RP/KEN/78/003	TCDC: Kenya/Uruguay - establishment of a leather quality control laboratory

Republic of KENYA

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<u>Backstopping Responsibility</u>	<u>Spec.Act.Code/ All.Acc.Code</u>	<u>Project Number</u>	<u>Project Title</u>
PPD/SPA/ECDC	30.9.Z	RP/KEN/79/002	Visit of four experts from Kenya to Yugoslavia to discuss details for co-operation between leading Yugoslav firms and ITET-Nairobi
PPD/SPA/ECDC	30.9.Z	RP/KEN/80/001	Additional DSA for an expert from Kenya in conjunction with RP/KEN/79/002
IPGT/II	31.1.B	DP/KEN/79/003	Investment promotion seminar
IPGT/DTT/TEC	62.4.Z	RP/KEN/78/001	Technical co-operation among developing countries - study tour to India in the field of technology development
IPGT/DTT/TEC	62.4.Z	UC/KEN/81/148	National symposium on industrial research and development
EPL/REL/GOV	70.3.Z	RP/KEN/80/002	Consultations with Permanent Secretary, Ministry of Industries, Kenya

The approved and/or operational technical co-operation projects of UNIDO

Republic of KENYA

Backstopping

<u>Responsibility</u>	<u>All.Acc.Code</u>	<u>Project Number</u>	<u>Project Title</u>
IO/IIS/INFR	J12103	DP/KEN/86/013*	District Development Profile Studies - Assistance to the Ministry of Industry
IO/IIS/INFR	J12103	DP/KEN/87/009	Technical support for KIE's micro-businesses and extension services - Fyanza Province
IO/IIS/INFR	J12103	DP/KEN/84/011*	Assistance to small-scale industries, Kenya Industrial Estates Limited (phase III) (continuation of DP/KEN/81/017)
IO/IIS/INFR	J12106	DP/KEN/87/012	Kenya Industrial Training Institute (KITI) entrepreneurship development programme - preparatory assistance
IO/T/AGRO	J13104	US/KEN/84/163*	Leather development centre (LDC)
IO/T/ENG	J13316	DP/KEN/86/048	Establishment of a design and mechanical engineering laboratory of the Kenya Industrial Research and Development Institute (K.I.R.D.I.) - preparatory assistance
IO/T/CHEM	J13420	SI/KEN/87/801	Advisory mission on the rehabilitation of 'Synthetic Fibres Kenya Ltd.'
IPCT/II/PIF	G01101	DP/KEN/86/064	Industrial investment programme - preparatory assistance

* Large-scale project (= total allotment \$150,000 or above)

** Total allotment \$1 million or above

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Bangladesh	UNIDO/IS.510	1985
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