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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

INDUSTRIAL DEVELOPMENT REVIEW SERIES

ETHIOPIA

Accelerating industrial growth through market reforms

V.96-84418

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PREFACE

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

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

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

The Review has been prepared by UNIDO on the basis of substantive contributions provided by Dr. Eugene Owusu and Mr. Tadewos Harege-Work as consultants.

EXPLANATORY NOTES

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

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

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

The following abbreviations are used in this publication:

ADB	African Development Bank
ADLI	Agricultural Development-Led Industrialization
AMCE	Automotive Manufacturing Company of Ethiopia
Br	Birr
CBB	Construction and Business Bank
CBD	coffee berry disease
COMESA	Common Market for Eastern and Southern African Countries
DBE	Development Bank of Ethiopia
EPIA	Ethiopian Private Industries Association
EPRDF	Ethiopian Peoples's Revolutionary Democratic Front
ERRP	Economic Recovery and Reconstruction Project
FY	fiscal year
GDP	gross domestic product
HASIDA	Handicraft and Small-Scale Industries Development Agency
ICA	International Coffee Agreement
IMF	International Monetary Fund
IOE	Investment Office of Ethiopia
MVA	manufacturing value added
NEP	New Economic Policy
SAP	Structural Adjustment Programme
UNDP	United Nations Development Programme

BASIC INDICATORS

BASIC INDICATORS I: THE ECONOMY

Population (1994)	:	55.0 million[a/]
Annual growth rate of population (1980-1994)	:	2.5 per cent
Labour force (1993)	:	23.0 million[b/]
GDP (1994)	:	Br27,138 million
GNP per capita (1993)	:	$100

Growth of GDP (percentage)[c/] :

1988	1989	1990	1991	1992	1993	1994
1.9	0.2	4.0	-5.5	-2.9	12.0	4.9

Structure of GDP (percentage) :

	1980	1994
Agriculture	45.97	26.30
Mining and quarrying	0.10	0.18
Manufacturing	9.77	5.08
Construction	3.48	1.56
Other	40.68	66.88

Exports (1993)	:	$198.8 million
Principal exports ($ million, 1993)	:	Coffee (139.2), leather goods and hides (20.0)
Imports (1993)	:	$706.0 million
Principal imports ($ million, 1993)	:	Road vehicles (125.7), petroleum (123.6), food and live animals (77.0), metals (51.5), machinery including aircraft (48.0), chemicals (37.4)
Current account deficit (1993)	:	$57.9 million
International reserves (1994)	:	$533.6 million
Outstanding external debt (1993)	:	$4,729.0 million
Debt service ratio (1993)	:	13.79 per cent

Consumer price change (Percentage) :

1990	1991	1992	1993	1994
5.1	35.8	10.5	3.5	7.6

Exchange rated[d/] (Birr equivalents to US$1) :

1990	1991	1992	1993	1994
2.07	2.07	5.0	5.0	5.95

Source: UNIDO.

a/ Central Statistical Authority.
b/ World Bank, *World Development Report 1995*, Washington, D.C., 1995.
c/ Ministry of Planning and Economic Development.
d/ Annual average.

BASIC INDICATORS II: THE MANUFACTURING SECTOR

Manufacturing value added (1994)	:	Br1,377.8 million[a/]				
MVA per capita (1994)	:	Br25.08[a/]				
Manufacturing employment (1990)	:	105,000 persons				
Growth of MVA (percentage)[b/]	:	1990	1991	1992	1993	1994
		-3.9	-38.7	-9.6	51.9	18.2

Structure of MVA (percentage) :	1986	1991
Food, beverages and tobacco	43.86	44.26
Textiles and clothing	24.93	29.64
Wood products	3.42	3.57
Chemicals	9.92	8.38
Other	6.20	4.42

Share of manufactured exports in total exports (1993) (percentage):	84.95	
Structure of industrial exports (1993) (percentage) :	Processed foods	66.32
	Machinery and equipment	19.79
	Textiles and clothing	13.17
	Others	0.72
Share of manufactured imports in total imports (1993) (percentage):	85.03	
Structure of industrial imports (1994) (percentage) :	Machinery and equipment	56.50
	Chemicals	18.71
	Processed foods	8.12
	Basic metals and iron and steel	7.71
	Others	8.96

Source: UNIDO.

a/ National accounts in current prices.
b/ National accounts in constant prices, Ministry of Planning and Economic Development.

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

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

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

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

SUMMARY

The economic and industrial evolution of Ethiopia, one of the least developed economies in the world, has closely mirrored its domestic political developments. A period of relative political stability combined with the pursuit of prudent macroeconomic policies in the mid-1950s to the late 1960s saw the economy expand impressively, the manufacturing base grow considerably, and the development of institutional capacity take root. Yet developments in 1974 ushered in a period of socialist economic transformation and eventual economic regression.

By the late 1980s, the perverse effects of the pursuit of misguided policies, which were exacerbated by recurrent drought and prolonged armed conflict, manifested themselves in a systematic deterioration in most macroeconomic parameters. Allied to the contraction in the real sector, the fiscal deficit widened sharply to register over 20 per cent of GDP in 1990, the external account balance deteriorated, and labouring under a debt overhang of some $8.6 billion, the country, once applauded for its prompt discharge of debt service obligations was in arrears on its external debt by some $100 million in 1990.

The cardinal objective of the present government, whose accession to power followed victory in 1991 in the country's prolonged civil war, has been to implement corrective measures to revitalize the domestic economy, as well as, to create the policy environment conducive to the proper utilization of the country's resources. To this end, the government has embarked on a programme of economic reform and structural adjustment in a bid to establish a functioning market-based economy. The first phase of the reform programme - the stabilization phase - implemented since 1992 has sought to establish fiscal, monetary and exchange rate equilibria. Crucially, there has been a re-ordering of fiscal priorities, the tax structure has been rationalized to enhance revenues and both consumer and producer subsidies have been systematically eliminated.

The second phase of the programme - structural reform - is aimed at stimulating a supply response to key reform variables, and the creation of the requisite enabling environment to foster private sector development. The emphasis here includes the elimination of controls on prices and distribution, as well as, reforms to the trade regime. Indeed, as part of the transition to a market economy, a number of reform measures have already been implemented to liberalize the trade regime. In a bid to promote export, as well as diversify the export base, automatic granting of licenses was introduced in early 1992, and concurrently, automatic, non-discriminatory and transparent licensing of imports became effective. Moreover, the comprehensive process of import liberalization has led to the rationalization and the reduction in the rate of effective import protection.

In the short-to-medium term it is expected that trade policy will continue to focus expressly on promoting exports, on accelerating the removal of cost-price distortions, and on the design of a substantial pro-active campaign to market the country's export potential in overseas markets. Overall, in the medium term, the thrust of government economic policy is expected to focus on the deepening of the reform process, particularly in terms of liberalization; a further improvement of the enabling environment for private sector development, and the acceleration in the pace, as well as a broadening in the scope and extent of the country's much-vaunted privatization programme.

A critical analysis of the evolution of manufacturing development shows that Ethiopia has a long history of artisan manufacturing activity. Large-scale manufacturing did not begin to play a significant role in the economy until the mid-1950s. The federation with Eritrea in 1952, in particular, acted as a spur to the development of the country's manufacturing base, but the real stimulus came from the establishment of an investor-friendly policy environment and the pursuit of import substitution policies in the 1950s and 1960s. Yet, amid the failure to promote indigenous small-scale industry, Ethiopia's industrialization prior to the mid-1970s appears to have had mixed results. While it led to the expansion of aggregate economic activity, it did not do so in a particularly sustainable manner, in particular, the medium- and large-scale industries which were

largely capital-intensive, relied very much on imports, and as such created relatively little employment opportunities.

The 1974 coup and the policy of nationalization that followed saw large-scale manufacturing enterprise brought under public ownership, and accorded priority in resource allocation. Yet, in spite of this, except for a brief period between 1979 and 1981 when the sector registered impressive growth, industrial performance was largely lacklustre. In particular, increased insecurity and recurrent drought in the late 1980s and early 1990s had significant adverse impact on manufacturing activity: following a double-digit plunge in real output in 1990, industrial activity plummeted by some 14 per cent in 1991 and manufacturing value added (MVA) fell by 17 per cent in real terms for that year. It may be noted that during this period the development of small-scale industry was hampered by a plethora of factors, of which the lack of availability of critical inputs and raw materials was the most acute.

Auspiciously, the advent of the transitional government brought about a stabilization and an eventual rebound in industrial activity; in 1992, industrial activity and MVA rebounded by an excess of 50 per cent. Crucially, the change in government also brought about a significant change in industrial policy, in favour of liberalization, privatization and internationalization of the country's manufacturing sector. Underpinning this strategy is a commitment to replace the hitherto significant role of the public sector with greater domestic and foreign private participation.

Indeed, current industrial strategy is based explicitly on the so-called 'Agricultural Development-led Industrialization' (ADLI), which has as its central tenet the development of a domestic industrial sector that is labour-intensive and that utilizes local raw materials. The explicit goals of the ADLI include the promotion of economic efficiency and growth; the development of domestic technological capabilities for the production of intermediate inputs, spare parts, and capital goods; the achievement of international competitiveness in areas of clear comparative advantage in industrial exports; the greater use of labour-intensive technology and local resources; and the promotion of balanced regional industrial development. Critically, the ADLI is intended to promote the unhindered participation of the private sector in industrial activity, within a framework of private property rights and competitive markets.

An analysis of the structure of manufacturing production shows the structure and pattern of production has remained broadly invariant for more than two decades: food, beverages, and textiles have consistently accounted for over 50 per cent of gross manufacturing output, and manufacturing employment since well before the 1974 revolution. Moreover, MVA has been relatively consistent in its contribution to GDP, typically accounting for some 8-11 per cent of aggregate economic activity. The absence of any significant structural changes in manufacturing is a manifestation of the failure to diversify the manufacturing base, which in turn, was the result of the failure to develop an indigenous capital goods and engineering industry. Additionally, that industrial strategy was large-scale and capital-intensive, inhibited growth in manufacturing employment. And the virtual absence of inter-sectoral linkages meant that the country depended acutely on foreign sources for machinery, equipment, spare parts and critical inputs.

A striking feature of Ethiopia's manufacturing sector is what has been dubbed the 'double-dualism', on the one hand, medium- and large-scale enterprises versus small-scale enterprises. and on the other, public versus private ownership. As with the primacy of medium- and large-scale enterprises, with respect to the public sector-private sector dichotomy, the former predominates in terms of key economic variables, including gross value of output, fixed capital assets, gross fixed capital formation and employee level.

Another notable feature is the concentration of manufacturing activity around the capital, Addis Ababa, and Dire Dawa, in the eastern part of the country; critically, Addis Ababa and the Shoa region, together with Dire Dawa and the Hararghe Region account for over 90 per cent of all industrial establishments. Indeed, this high degree of industrial concentration is not particularly surprising given that these areas account for the greatest concentration of infrastructure, including transportation, communications, utilities, and skilled labour. Moreover, there have been traditionally no incentives for enterprises to locate outside these core areas, as the promotion of

balanced regional development failed to be accorded any significant priority under the regime of the Dengue. Thus it comes as a welcome relief that the present government appears committed to an industrial policy which aims to foster a more balanced development across the country.

Given the centrality of agriculture to the domestic economy, agro-based industries have historically been a major component of aggregate industrial activity. However, due to the country's relative underdevelopment of agriculture - especially commercial farming, which was monopolized by the State - and the sector's vulnerability to inclement weather, over the past two decades, there has frequently been severe shortages of agricultural inputs necessary to service the agro-industries. Thus, it is hardly surprising that in the five years to 1993, the gross value of production in the agro-industries virtually stagnated.

But in spite of significant organization problems, a shrinking export market, not least to stringent health and sanitation requirements in key export markets, a number of large-scale food processing projects are presently under construction by the State. These include the Addis-Modjo Edible Oil Complex, the Hammaressa Oil Mill and the Dire Dawa Food Complex; the design capacities of these new projects are even larger than most of the existing plants. Thus, when all these new projects come on-stream, the gross value of the food, beverages and tobacco industries would increase substantially. In the short-to-medium term, despite the enormous potential of the agro-industries, it is expected that performance will continue to be hampered by overmanning, a lingering lack of experience in operating in competitive markets and difficulties in retaining foreign markets.

The structural composition of the textiles subsector is dominated by the production of fabrics, most of which is of coarse quality; according to latest official statistics, some 60 per cent of textile output is in the form of fabrics. Although significant investment has been made in the textile industry in recent years, basically the sector continues to suffer from the twin problems of a perennial inadequacy of critical inputs and low productivity; the latter has been augmented by the profusion of antiquated machinery and equipment at some major textile mills. Moreover, as a result of shrinking cotton acreage, the demand for lint far exceeds domestic supply, a development which has sharply increased the need for imports to bridge this gap.

Yet, in spite of these constraints, the potential of the textile subsector is immense. Many empirical studies have shown that, despite the country's low *per capita* income levels, there exists a large unsatisfied effective demand for textile products in the country. But perhaps, more significant for the prospects of the industry is the fact that, cotton, the key major raw material for the industry, can be grown in large commercial quantities in many parts of the country. Underpinned by current economic policy which encourages private investment in commercial farming, cotton production will rebound in the medium term to bolster accelerated development of the textile industry. It must also be noted that in addition to a good supply of cheap semi-skilled labour, which can be fairly easily upgraded, the country's accumulated manufacturing experience in the subsector also represents a major asset. Additionally on the demand side, as well as membership of the 20-member Common Market for Eastern and Southern Africa (COMESA), Ethiopia is a signatory of the Lomé Convention, which permits give it preferential (both duty-free and tariff-free) access to the European Union (EU) market.

Being home to Africa's largest livestock population, Ethiopia has been encouraged to develop a significant industry in hides and skins. Indeed, the domestic leather and footwear industry is fairly well developed, the principal products being semi-processed skins, crust hides, wet blue hides, leather boots and plastic footwear. While hides and skins represent the country's highest exports, next to coffee, the products being exported so far are mainly in the semi-processed form. Thus there is a huge unexploited potential for producing finished leather and leather articles for the export market. Critically, the expansion of value added in leather and leather products could earn the country substantial incremental amounts of foreign exchange.

Rapid deforestation has had severe adverse consequences for the wood and wood products industry, manifested in a sharp decline in the subsector's output since the early 1980s. According to government figures, there were eight publicly-owned establishments operational in wood and

products subsector, but most of the enterprises in the subsector are small, privately-owned, wood shops engaged in manufacturing household and office furniture, timber, plywood and chipboard manufacturing are relatively of larger scale and are mostly within the State sector. In sharp contrast to some of the preceding subsectors, prospects for the wood and wood products subsector are limited. Presently, there is no export production, and in addition there are no major new or expansion projects under way. Amid the scarcity in timber supply, both the government and some NGOs have initiated a number of community development initiatives in order to reverse the situation. Additionally, there are some afforestation and commercial forestry programmes being pursued in parts of the country which, if successful, may be able to ensure a steady supply of wood to enhance the subsector's much-subdued prospects.

While oil exploration in Ethiopia dates back to the 1930s, the country has yet to commercially exploit any crude oil. Thus, presently, it depends entirely on imported oil and gas. However,both the government and the fledgling number of petroleum prospectors currently operating in the country are cautiously optimistic. A six-year 24,000 kilometre exploration concession granted to the United States-owned Afar Oil Corporation in 1994 has been followed by other exploratory rights in the western Gambela region. Besides oil, the potential for natural gas production remains substantial. As far back as 1987, the government announced the discovery of some 25 million cubic metres of natural gas deposits in Hararghe, but the remote location, combined with the lack of finance, has hampered any real attempts at harnessing the find. Perhaps reflecting rising optimism in the country's natural gas potential is the recent World Bank investment of some $150 million to develop the Calub gas field located in the southern extreme of the country. While these developments bode well for the future, short-to-medium term, it is undoubted that Ethiopia will continue to depend on foreign sources of oil and gas. Indeed, against the backdrop of Eritrea's independence, Ethiopia has also become entirely dependent on imported petroleum products, most of which are now sourced from Eritrea's Assab refinery.

As many other subsectors, the chemical and allied industry is dominated by public sector production; in terms of capacity most of the privately-owned enterprises are small scale. The principal products in the sector include soap, carbon dioxide, oxygen, paints, tyres and tubes. pharmaceuticals, medicinal chemicals, and thermoplastic goods. Given that most of the critical raw materials required by the subsector, including caustic soda, natural and synthetic rubber, sodium compounds and active pharmaceutical ingredients are imported, sustained output expansion has been hampered by both the lack of availability of inputs and finance. According to official statistics, the gross value of production virtually doubled from Br131 million in 1989 to Br249 million in 1993. However, the sharp increase in value was largely a result of shortages-generated and devaluation-induced price rises, rather than any sustained expansion in the volume of production. However, notwithstanding lingering constraints, the prospects for the subsector are good. Crucially, the subsector's outlook has been bolstered by two new investment projects, the Awash Melkasa Aluminium Sulphate and Sulphuric Acid Plant and the Zeway Caustic Soda Plant, which would produce, amongst others, sulphuric acid and caustic soda, two key inputs for the chemical industry.

Historically, the non-metallic minerals industry has comprised mainly building materials, such as the manufacture of cement and cement products, lime, glass and glass products. But, latterly, the production of ceramic products, including table ware, sanitary ware and wall tiles have emerged. While many of the key products within this subsector are produced within the public sector, cement blocks, cement tubes and cement floor tiles are manufactured in large quantities by numerous small-scale producers in the private sector. Although there are only few investments and expansion schemes presently under way, the subsector's medium-term prospects are particularly promising. Not least, this reflects the fact that it is the only subsector within industry where all the major raw materials required for production are available locally. Critically, limestone, the major raw material in the production of cement and lime, is found in almost every region of the country in abundant quantities. Moreover, together with the good supply of cheap semi-skilled labour, the accumulated managerial and technical knowledge in the production of such items as lime, cement, cement-made products and bricks represent a significant asset. Yet, if the subsector is to harness its substantial medium-term potential, it will require a major programme

of re-investment to rehabilitate and modernize aged plants and equipment, in order to overcome low levels of capacity utilization that afflict many enterprises within this branch of industry.

I. THE MACROECONOMIC AND INDUSTRIAL POLICY ENVIRONMENT

A. RECENT ECONOMIC TRENDS

Economic trends pre-1991

With a current *per capita* income of just $120, Ethiopia is one of the lowest income countries and one of the least developed in the world. Crucially, the country's economic evolution has been closely tied to its political developments. Under the tutelage of the late Emperor Haile Selassie, which was characterized by a period of relative political stability and prudent macroeconomic policies, the country's overall economic development was quite impressive. Between 1965 and the overthrow of the Emperor by the Armed Forces Co-ordinating Committee, otherwise known as the 'Dergue' in 1973, the economy expanded at an annual average rate of over 4 per cent. The result of such sustained growth in output was an improved standard of living for most of the population.

The Dergue's pursuit of socialist economic transformation under the armed forces, however, ushered in a period of economic stagnation, and indeed, regression. In 1975, two years after its accession to power, the Dergue undertook a comprehensive nationalization of private assets, which saw the financial sector, major manufacturing enterprises, commercial farming, trade, transport and tourism sectors brought under state control. In addition, there was an outright transfer of ownership of rural land, mostly from feudal absentee landlords, to the peasantry.

Predictably, the economic dislocation which accompanied these radical measures were massive. Despite a period of rising international coffee prices which underpinned the accumulation of foreign exchange reserves, and modestly successful successive annual development campaigns, the country's overall economic performance was broadly unfavourable. Between 1974 and 1990, real GDP growth averaged just 1.9 per cent per annum, falling far short of the estimated annual population growth rate of 2.7 per cent. In fact, this figure belies the fact that for much of the second half of the 1980s, there was a systematic deterioration in most macroeconomic indicators. In fiscal year (FY) 1988/89, real GDP grew by a sluggish 0.2 per cent, undermined by a broad-based stagnation/contraction in sectoral economic activity; the agricultural sector expanded by a pitiful 0.5 per cent, while industry and distributive services actually contracted by 3.5 per cent and 6 per cent respectively.

Allied to the contraction in the real sector, the fiscal deficit steadily widened, with the government increasingly resorting to deficit-financing from the central bank. By 1990, aggregate fiscal expenditures had reached 46 per cent of GDP (20 per cent in 1974), while revenues were less than 25 per cent of GDP. The result was that the overall deficit, excluding grants, amounted to just over 20 per cent of GDP for that year. Moreover, in 1989/90, export receipts plummeted by some 17 per cent year-on-year, imports contracted by over 12 per cent on the same comparative basis. The external account balance, excluding public transfers, worsened to almost 5 per cent of GDP, and by the end of 1990, gross official reserves equated to a precarious 1.3 weeks of import cover.

Also telling was that in 1990, Ethiopia's aggregate foreign debt stood at $8.6 billion or $172 *per capita* (compared to a GDP *per capita* of $90), and the country, once applauded for its prompt discharge of debt service obligations was in arrears on its external debt by almost $100 million.

In summary, the general deterioration of the domestic economy witnessed during much of the 1980s can be explained by the combination of several factors, including:

- the implementation of misguided policies which had the effect of discouraging efficiency;
- centralization of economic management and the suppression of market forces;
- the maintenance of an unrealistic exchange rate which had the effect of penalizing exports, while inducing an influx of cheap imports for both consumption and industrial use; and,
- fixed and administered prices which distorted resource allocation.

In no small measure, the perverse effects of the above policies were exacerbated by recurrent drought and the disruption caused by the prolonged armed conflict.

Table I.1. Annual GDP growth rates, 1988/89-1993/94
(At constant 1980/81 factor cost)

	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Agricultural sector	0.5	5.3	2.5	-2.0	6.4	-5.3
Agriculture	0.3	5.8	2.6	-2.6	7.0	-5.9
Forestry	2.0	2.0	1.7	2.0	2.5	-1.7
Fishing	6.0	4.8	6.8	6.4	6.0	5.7
Industry	-3.5	-4.3	-18.5	-7.6	27.1	7.6
Mining and quarrying	3.0	-5.4	171.4	-25.1	46.4	-21.2
Manufacturing	-0.5	-3.9	-38.7	-9.6	51.9	13.2
Handicraft/small-scale	-10.0	10.5	-13.8	0.3	17.1	1.9
Building/construction	4.1	2.4	3.0	3.9	5.8	5.6
Electricity/water	-7.8	-15.0	-9.2	-14.3	16.9	10.0
Distributive services	-6.0	4.1	-23.0	-3.0	23.8	8.6
Trade, hotels etc	-10.5	7.2	-31.2	-13.0	35.4	11.1
Transport/communication	3.1	-1.3	-7.3	11.3	10.8	5.6
Other services	6.6	5.5	-5.1	-3.0	13.0	22.2
Banking/insurance	-7.9	-3.1	-10.4	4.2	-1.3	136.2
Real estate etc.	4.1	4.2	3.7	3.2	3.9	4.1
Public administration/defence	12.9	8.9	3.7	3.2	3.9	4.1
Education	6.4	2.4	9.0	2.7	-2.7	2.6
Health	4.2	2.5	-3.5	10.1	14.7	19.3
Domestic and other services	7.6	7.9	6.9	6.1	6.1	6.2
GDP	0.2	4.0	-5.5	-2.9	12.0	4.9

Source: Ministry of Planning and Economic Development.

Economic trends post-1991

With the end of civil war in 1991 and takeover of power by the Ethiopian Peoples's Revolutionary Democratic Front (EPRDF), the main preoccupations of the Transitional Government were security concerns and the quest for relative political stability. A process of rehabilitating the economy was soon initiated. A $672 million donor-supported Economic Recovery and Reconstruction Project (ERRP) was designed explicitly to help kick-start the moribund economy by rejuvenating essential social and physical infrastructure. Essentially, the objective of the programme was to utilize emergency assistance to overcome the devastating effects of decades of war and to recommence economic activity.

Crucially, however, the government recognized the need for a more coherent economic strategy to correct entrenched macroeconomic imbalances. This culminated in the New Economic Policy (NEP) which was unveiled in late-1991. The NEP represented a radical departure from the past, in that the main thrust of economic policy became the transformation of the command economy inherited from the Mengistu regime into a functioning market-based economy. The emphasis was to dismantle the Byzantine labyrinth of perverse state intervention and to limit the role of the state in economic activity. The systematic reduction in the role of the public sector in productive activities was to be undertaken in favour of the expansion and deepening of the private sector.

In some respects, the NEP acted as a precursor for a three-year IMF-sponsored Structural Adjustment Programme (SAP) which was implemented in 1992. Under the auspices of the SAP, a plethora of reforms have been implemented including a partial liberalization of prices; the devaluation of the local currency, the birr; the enactment of a new, more liberal investment regime; and the granting of autonomy to public enterprises. Moreover, sweeping reforms have seen the establishment of a more market-determined foreign exchange and interest rates, and the overhaul of hitherto restrictive labour legislations. Underpinning the SAP has been the pursuit of tight fiscal and monetary policies.

By every objective criteria, the comprehensive reform measures implemented, in combination with the restoration of relative stability, have yielded significant positive dividends. Although the economy continued to contract in 1991/92, this had to do more with the lingering effects of the war, and in some respects, the inevitable process of consolidation by the new government. The domestic economy began to pull out of its traumatic decline in FY 1992/93, bolstered by the substantial inflow of foreign capital, both from official and private sources. Overall, following a decline of 5.5 per cent registered in 1990/91 and a more modest 2.9 per cent contraction witnessed in 1991/92, the economy rebounded robustly in 1992/93, registering year-on-year growth in real GDP of some 12 per cent. The improved availability of foreign exchange facilitated the critical importation of essential raw materials, spare parts, replacement machinery, and fertilizers to underpin growth.

Moreover, further assisting the impressive growth out-turn witnessed in FY 1992/93, was the positive supply-response of the productive sectors to the more liberalized price regime. On a sectoral basis, the agricultural sector grew by 6.4 per cent in 1992/93, industrial growth amounted to an impressive 27 per cent, while the distributive services recorded an expansion of some 24 per cent year-on-year.

In contrast, undermined by a severe drought, which saw the largely rain-fed agricultural sector contract by over 5 per cent, economic growth in 1993/94 was rather subdued, at 4.3 per cent. However, estimates for 1994/95 suggest a return to accelerated growth, with real GDP estimated to record growth of some 6 per cent for the year.

The dramatic turnaround in Ethiopia's economic performance is perhaps no better demonstrated than in the restoration of price stability. Needless to say that historically, Ethiopia had been a low inflation economy, although this was largely the result of the restrictive price and income policies pursued by the Dergue. As such, price developments have generally been influenced by supply-side factors, such as external shocks, variability in agricultural production and the availability of foreign exchange.

Largely due to supply-side disruptions and excessive monetary liquidity at the tail-end of the war, price pressures surged sharply in the first half of 1991, to reach an annual rate in excess of 35 per cent. However, with improved supply conditions, inflationary pressures subsequently decelerated markedly, with the result that retail price inflation - measured by the Addis Ababa Retail Price Index - registered an annual 21 per cent for 1991/92 as a whole. In 1992/93, annual inflation registered 10 per cent, and this favourable performance was achieved in spite of the adverse effects on price levels induced by the sharp devaluation of the birr in October 1992. Inflationary pressures further decelerated, and annual inflation plummeted to an impressive 1.2 per cent in 1993/94. While price pressures increased in the first half of 1994, this proved to be an aberration,

as inflationary pressures remained generally subdued as a result of tight fiscal and monetary policies pursued by the government.

Indeed, with regards to fiscal performance, the overall picture that emerges is one of a stabilization in government finances, with the fiscal deficit as a proportion of GDP remaining consistently in the single digit range. According to preliminary official estimates, in nominal terms, revenues excluding grants, amounted to some Br5.7 billion in 1994/95, representing an increase of 84 per cent over the level in 1989/90. Concurrently, aggregate expenditures rose by just 54 per cent to Br5.1 billion in 1994/95. Thus, from 9.7 per cent of GDP in 1989/90, the fiscal deficit fell to 7.2 per cent of GDP in 1992/93, and bolstered by a sharp rise in revenue amid a virtual stagnation in expenditure growth, the deficit is estimated to have fallen to a commendable 4.1 per cent of GDP in 1994/95.

Table I.2. Profile of fiscal developments, 1990/91-1994/95
(Million birr)

	1990/91	1991/92	1992/93	1993/94	1994/95[a/]
Total revenue, including grants	3,169.6	2,751.0	4,158.7	5,048.2	6,817.7
Revenue	2,706.3	2,208.0	3,091.6	3,830.1	5,782.8
Grants	463.3	543.0	1,067.1	1,218.1	1,034.9
Expenditure	4,854.1	4,205.3	6,039.2	7,895.2	8,136.9
Current expenditure	3,540.1	3,253.5	3,866.9	4,474.3	5,075.0
Capital expenditure	1,214.0	951.8	2,172.3	3,420.9	3,061.9
Overall balance (cash)	-1,684.5	-1,454.3	-1,880.5	-2,847.0	-1,319.2
Excluding grants (cash)	-2,147.8	-1,997.3	-2,947.6	-4,065.1	-2,354.1
Overall balance (percentage of GDP)	-8.5	-7.2	-7.2	-10.2	-4.1
Excluding grants (percentage of GDP)	-10.8	-9.8	-11.4	-14.5	-7.2

Source: Ministry of Finance.

a/ Preliminary estimates.

It is important to note that, in addition to the reining-in of the budgetary deficit, radical changes in government priorities have led to significant structural changes in expenditure patterns. In particular, to support the government's stated policy of poverty alleviation, there has been a reallocation of state resources in favour of rehabilitating productive assets, as well as improving social and economic services. The corollary of this has been that an increasing proportion of total budgeted expenditures is now in the form of capital expenditures. Capital expenditures climbed from just 8 per cent of GDP in 1989/90 to a high of over 12 per cent of GDP in 1993/94, although the ratio fell back to an estimated 9.4 per cent in 1994/95. Military expenditures have fallen from a massive 25 per cent of total government expenditures in FY 1989 to 8 per cent in 1993/94, while at the same time spending on infrastructure rose from some 7 per cent to 17 per cent of total expenditures.

In sharp contrast to price developments, an analysis of the performance of the external sector in post-1991 shows rather mixed results. While Ethiopia has historically run current account deficits, towards the end of the 1980s, the country's external position became unsustainable. Political and economic instability resulting from the intensification of the civil war curtailed exports, while the level of imports, dominated by military goods, remained high, albeit growth in imports actually stagnated.

In 1991, merchandise exports fell by some 43 per cent to $168 million for the year, and at the same year, a pervasive shortage of foreign exchange led to a sharp contraction in imports. A result of this forced curtailment in imports was that the trade balance improved markedly, with the deficit halving to just over $303 million in 1991. Notably, this improvement in the trade balance, coupled with the large net transfer surplus registered for the year, led to a current account surplus of some $174 million in 1991, the first such to be recorded for many years.

Table I.3. Balance of payments, 1990-1993
($ million)

	1990	1991	1992	1993
Merchandise exports	292.0	167.6	169.9	198.8
Merchandise imports	-912.1	-470.8	-992.7	-706.0
Trade balance	-620.1	-303.3	-822.8	-507.2
Services:credit	304.6	268.3	267.9	278.1
Services:debit	-358.8	-284.3	-368.3	-299.4
Income:credit	9.2	14.4	22.3	21.5
Income:debit	-77.0	-96.7	-104.1	-78.4
Private unrequited transfers	229.1	222.4	341.5	251.8
Official unrequited transfers	220.0	353.0	543.9	279.6
Current account	-293.8	173.9	-119.8	-57.9

Source: International Monetary Fund, International Financial Statistics.

In 1992, there was a virtual stagnation in merchandise exports, whilst imports bounded back to pre-1991 levels, increasing by more than twofold to register some $993 million, and producing a deficit on the trade account of almost $823 million. Yet, while the sharp deterioration in the trade deficit caused the current account to move back into deficit in 1992, of about $120 million, the overall balance of payments was broadly favourable, thanks to debt cancellation and rescheduling instigated by the Paris Club of official creditors.

Driven by the recovery in the economy in general, and buoyant agricultural exports in particular, IMF figures show merchandise exports increased by 15 per cent to $200 million in 1993. Also positive was the fact that, undermined by the currency devaluation initiated in October 1992, merchandise imports fell sharply in 1993, which in turn produced a significant contraction in the trade deficit. Moreover, as a result of increased debt relief and large official and private inflows, the current account deficit shrunk to just $60 million for the year.

Favourable international coffee prices provided a major boost to export revenue in 1994, which is estimated to have registered almost $350 million. However, the beneficial impact of the strong growth in exports on the external account was offset somewhat by robust import growth that year. Overall, the current account was virtually in balance in 1994. Most notably, following sustained capital inflows and the positive effects of lower debt servicing, gross official reserves, which amounted to below five weeks of import cover in 1990/91 had risen to over 24 weeks imports by end of FY 1993/94.

MACROECONOMIC TRENDS

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

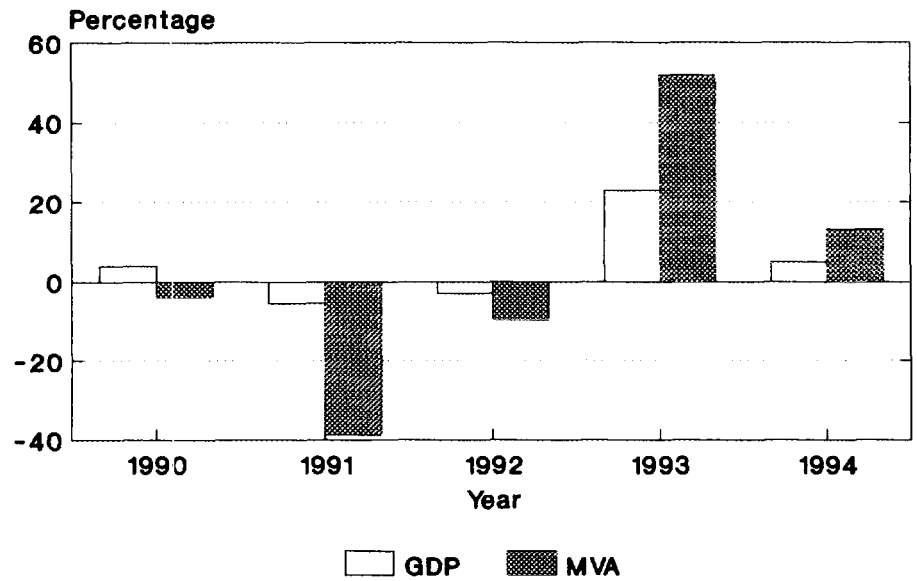


Fig. I.B. Structure of GDP by sector of origin, 1980 and 1994 (Percentage)

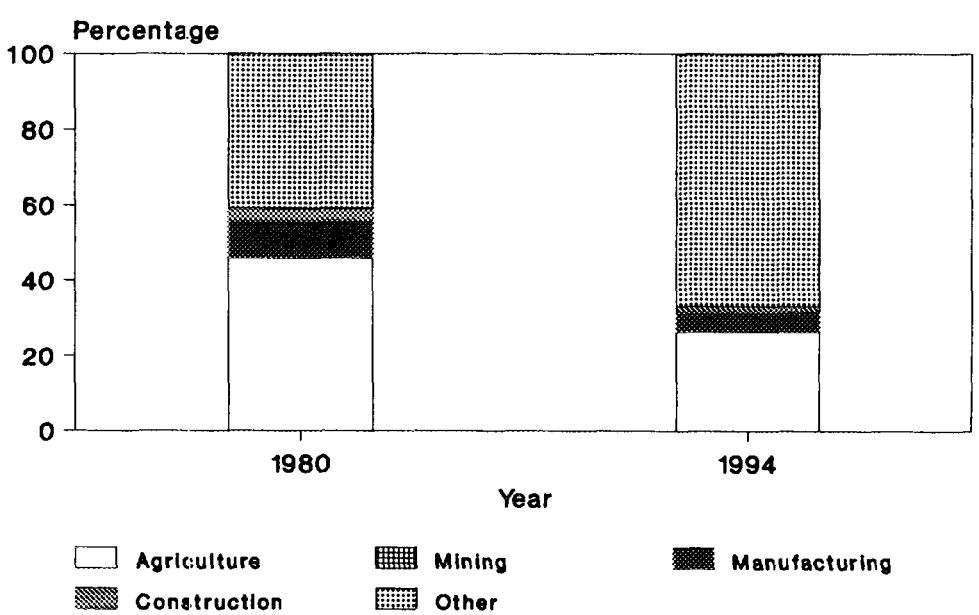


Fig. I.C . Exports, imports and trade balance, 1988-1993 ($ Million)

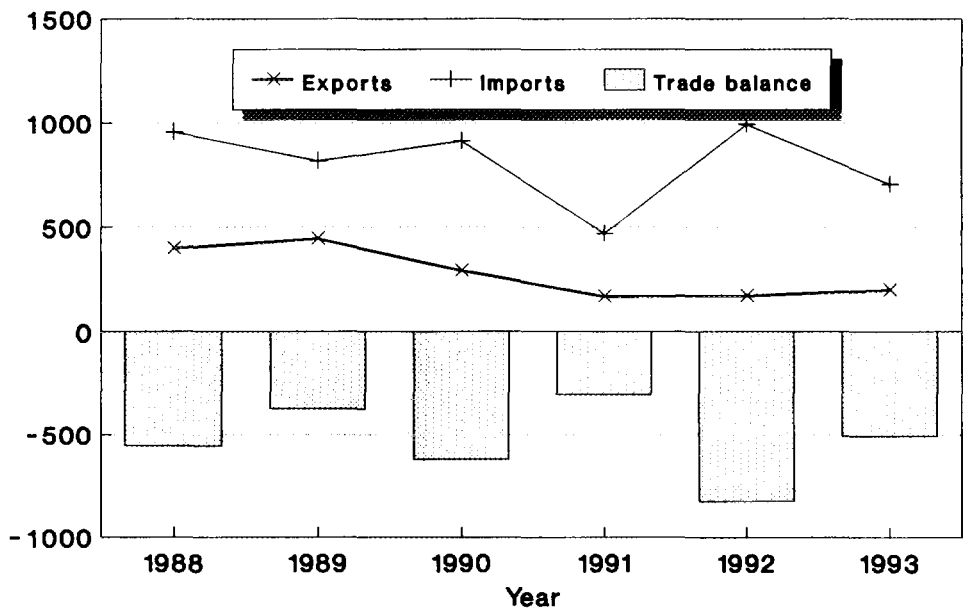


Fig. I.D. Govt. consumption, capital formation and private consumption, 1988-1994

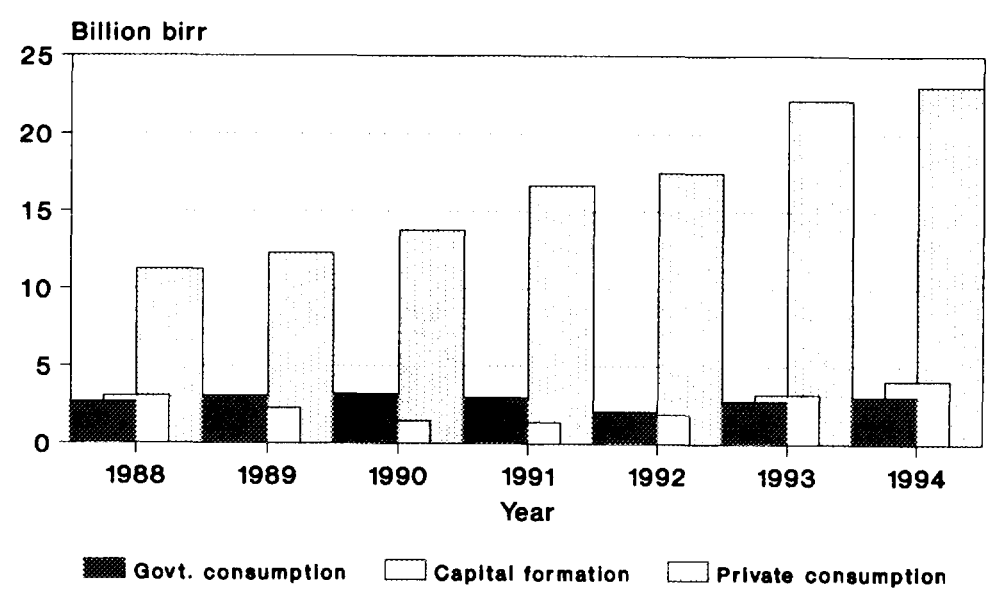


Fig. I. E. Foreign exchange reserves, 1988-1994 ($ Million)

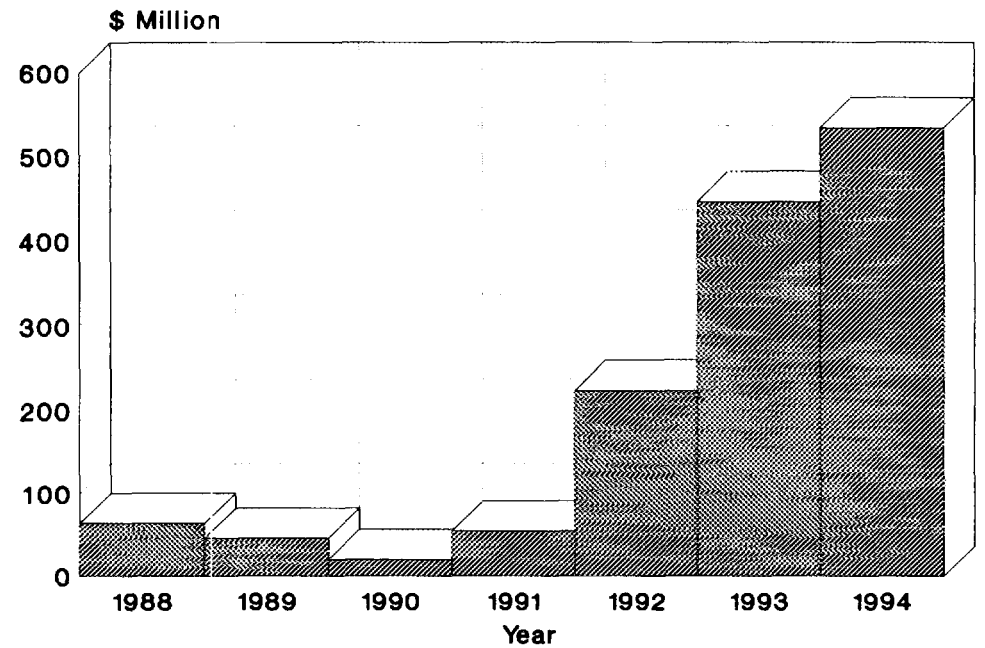


Fig. I.F. External debt and debt service ratio, 1988-1993

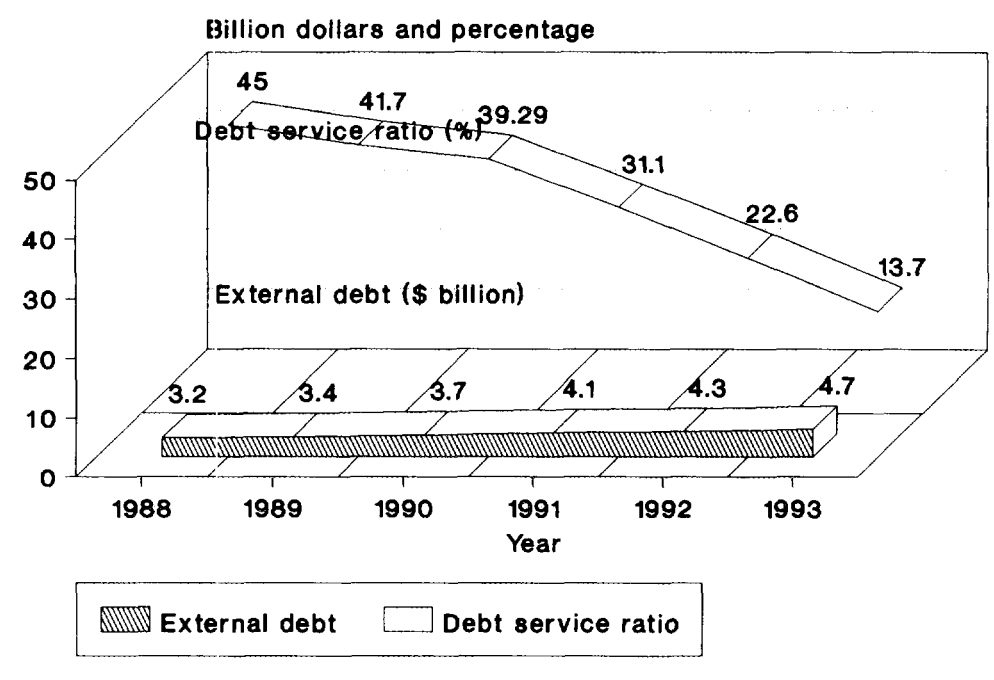


Fig. I.G. Exchange rate, 1990-1994
(Birr equivalents to $1)

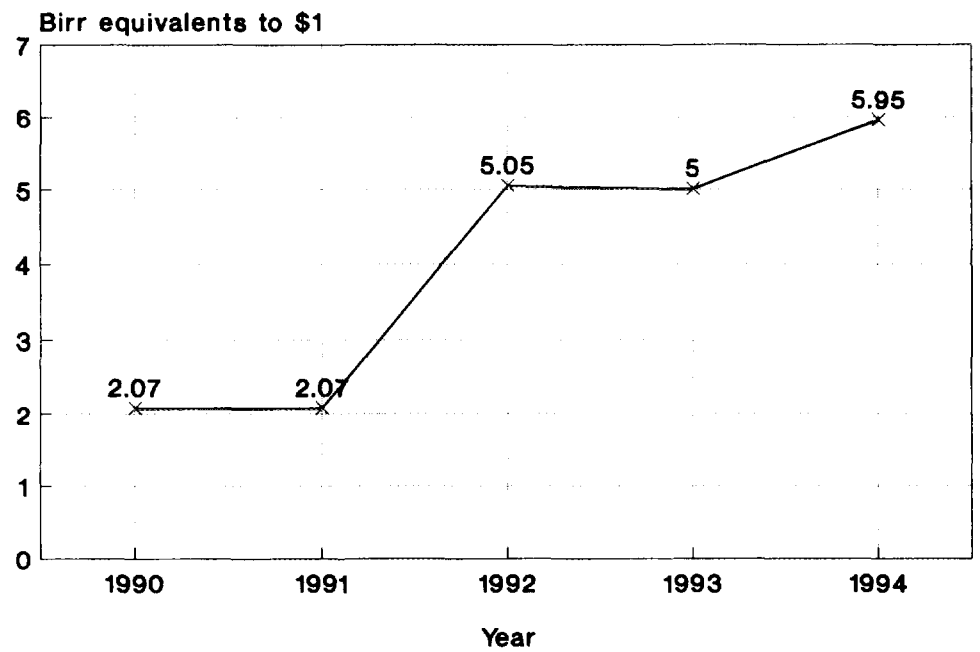
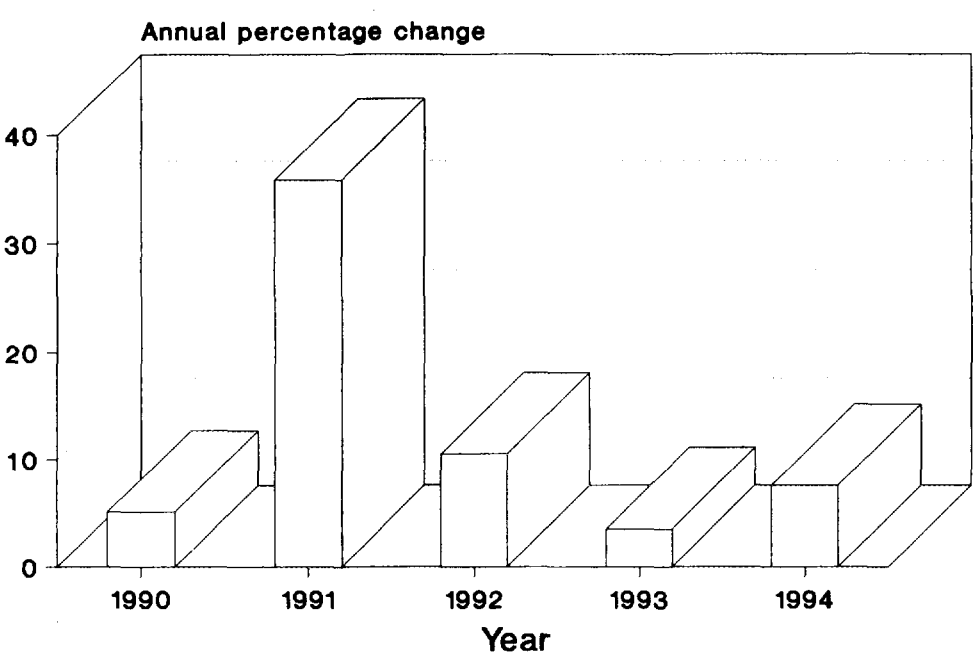


Fig. I.H. Consumer price change,
1990-1994 (Percentage)



B. ECONOMIC STRUCTURE

The physical environment

Located in what is popularly termed the Horn of Africa, Ethiopia is bounded by Eritrea in the north, Djibouti and Somalia in the east, Kenya in the south and Sudan in the west. It is the tenth largest country in Africa, and covers a total land area of some 1.14 million square kilometres. Of this, almost three quarters or about 840,000 square kilometres is comprised of arable land. However, the land suitable for cultivation is limited. In fact, only about one-eighth of the land area of Ethiopia can be used for the production of crops.[1/] Three-eighths is permanent pasture.

Primarily as a result of the topography of the land, and also the proximity to the Indian Ocean, the country is characterized by both tropical and temperate conditions. Specifically, while the lowland regions are generally hot and humid, temperate conditions predominate on the central plateau.

There are two rainy seasons; the main one lasts between mid-June and mid-September, while the minor season or the so-called 'little rains', which covers mainly the central plateau area, extends from February to April. In a normal year, most parts of the central highlands experience average rainfall of some 1,000 millimetres, while the lowlands typically get about 500 millimetres per year. Critically, however, large parts of the country are vulnerable to drought, as has been witnessed in recent years.

The country's physical features and geographical location have given it a rich and varied natural heritage of vegetation and wildlife. Moreover, extensive geological surveys conducted over the past two decades highlight that the country is blessed with significant deposits of base, rare earth, and precious metals. The Rift Valley area, in particular, is known to be rich in industrial minerals such as potash, soda ash, diatomite and bentonite.

The demographic base

With an estimated population of some 55 million in 1994, Ethiopia is the second most populous country in sub-Saharan Africa, after Nigeria. And according to World Bank estimates, the population grew at an average annual rate of about 3 per cent between 1985 and 1993. As with most other African countries, Ethiopia's population is predominantly rural; some 85 per cent of the people reside in rural areas, and 15 per cent in urban centres.

Demographic statistics show that the country's population is almost equally split by sex, with the male population marginally exceeding that of females at 50.1 per cent. Worrying, however, is the picture presented by the distribution of the population by age group. Principally, as a result of the high population growth and short life expectancy - estimated at 49 years - almost two-thirds of the total population is under 20 years of age. In fact, about 20 per cent of the population is under 5 years old.

Table I.4. Population structure by age group, 1994
(Million)

	Male	Female	Total	Percentage of total
0-19	17.3	16.2	33.5	60.9
20-59	9.3	9.7	19.0	34.4
60 +	1.3	1.3	2.6	4.7
Total	**27.9**	**27.2**	**55.1**	**100.0**

Source: Central Statistical Authority.

An additional concern, which has direct implications for the provision of social services and indeed overall economic development, is the divergent trends in growth pattern between the rural and urban areas. Undermined by sharp rural-urban migration, in part induced by the 'bright light' effect of town/cities, but more fundamentally due to a lack of economic opportunities in rural areas, population growth in the urban areas is well above the national average. According to official projections, Ethiopia's population will expand rapidly over the next 25 years to reach over 130 million in the year 2020. Simultaneously, the proportion of urban dwellers will increase to over 20 per cent by the year 2010, rising further to a projected 30 per cent by the year 2020.

Table I.5. Population projection, by sex, 1994-2020, selected years
(Million)

	1994	1995	2000	2010	2020
Male	27.6	28.4	33.5	47.3	66.0
Female	27.4	28.2	33.3	46.9	65.4
Total	**55.0**	**56.6**	**66.8**	**94.2**	**131.4**

Source: Central Statistical Authority.

Ethiopia has a number of culturally distinct ethnic groups. The largest of these is the Amhara who inhabit the central highlands of the country. Other major ethnic groups include the Tigreans who are related to the Amhara, but speak a different, though related language, and reside in the northern portion of the country; the Oromos, the agricultural-based people in the south; and the Somalis, who occupy the south-east Ogaden desert.

The majority of the population are Coptic Christians, although a growing number, estimated at about 40 per cent, are Muslim.

Agriculture

Agriculture is the mainstay of the Ethiopian economy. Currently, it contributes over 45 per cent of GDP, accounts for some 80 per cent of aggregate merchandise exports, and employs an estimated 80 per cent of the labour force. The principal crops produced include cereals, oil seeds, pulses and sugar cane. The northern part of the country typically tends to farm grain, including sorghum, barley, and wheat, but partly due decades of over-cultivation, the region is inflicted with the problems of soil degradation, erosion and salination of water resources.

Coffee, the major cash crop and the principal foreign exchange earner, is cultivated predominantly in the south-west, south and east of the country, and generates over 60 per cent of export revenue. Cotton production is also being encouraged, as is the development of tea plantations.

Ethiopia's agricultural development has not only been hampered by the recurrence of austere weather, but also by numerous infrastructural and institutional barriers to growth. Presently, the sector is having to rejuvenate itself from years of neglect under the system of state-owned farms imposed under the Mengistu regime, the inadequate supply of critical inputs such as fertilizers, and constraints imposed by the restrictive internal marketing system. Unsurprisingly, the difficulty of restructuring a centrally planned agricultural sector has placed significant constraints on production.

Since its accession to power in 1991, the EPRDF government has made agricultural development its prime priority, as evidenced in the increasing share of capital expenditures devoted to

agriculture. But the sector is still confronted by immense problems. For example, in 1994, there were damaging floods in the northern Welo area, as well as an infestation by army worm in the Asosa region in the northwest, which destroyed an estimated 60 per cent of the area's potential maize and millet harvest. Against a backdrop of only 2 per cent of the total area under cultivation being irrigated, perhaps the biggest problem is the recurrence of drought.

Under the ongoing five-year programme to rehabilitate and modernize the agricultural sector, the government is hoping to lessen the dependence on rain-fed production, by bringing some 2.4 million hectares of arable land under irrigation. Presently, less than 200,000 hectares of farmland are considered well irrigated. In addition, a number of bilateral technical assistance schemes are being implemented that aim at improving yields through improved hybridized seeds.

In the policy arena, the system of collective farms imposed under Mengistu has been largely dismantled, with the farms now being leased to the farmers as tenants. However, in the short-to-medium term, it is expected that the government will fully diversify from state farms by transferring the ownership of land to farmers. In line with the quest to develop a market-based economy, the requirement that farmers sell a share of their produce to the state procurement agency has been abolished, and the prices of agricultural goods have also been deregulated in tandem with the general liberalization of prices in the economy. Moreover, it is expected that existing subsidies on fertilizer will soon be phased out, with prices eventually deregulated.

Following the stabilization and recovery in the sector now being witnessed, the main tenet of agricultural strategy is expected to shift the adoption of improved technologies to underpin enhancements in output, diversification, and the broadening and deepening of the private sector's participation in both the production and marketing of agricultural goods. Overall, barring the recurrence of adverse weather, agricultural performance is set to improve in the medium-term as the benefits of ongoing deregulatory measures become fully felt and the substantial investment in the transport infrastructure allows for the expanded dissemination of agricultural supplies. The sector's performance will also be assisted by the greater availability of foreign exchange to allow for greater importation of vital inputs, such as tractors, pesticides and processing equipment.

Fishing

In the early 1980s, the Red Sea provided Ethiopia with approximately 25,000 tonnes of fish annually. With the loss of the Eritrean province, however, the country has lost its coastline and thus a large part of its fishing industry.

Nevertheless, fishing has potential. In addition to the lakes in the Rift Valley portion of the country (Kora, Zwai, Longano, Abiata, Shala, Awash, Abaya and Chamo), there is Lake Tana in the northern part of the country. Tana is the country's largest lake with an area of 3,600 square miles. Together with the country's rivers, it is estimated that freshwater fishing has the potential of producing 30,000 tonnes of fish per year. Approximately 24,000 tonnes of that would be from the lake system. Currently only 5,000 tonnes of fish per year are harvested from these freshwater resources.[2/]

Early in 1995, the European Union granted the country $3.2 million to develop the fishing sector. The funds are to be used to purchase modern equipment and influence the eating habits of the local citizenry which currently consumes very little fish.[3/]

Mining and energy

Mining

Despite the country's wealth of mineral resources, their exploitation and development have, in many respects, been rather rudimentary. But buoyed by the recent spate of foreign interest in the sector, the government is aiming to increase the mining sector's small contribution to overall output. In 1993/94, mining contributed just three per cent of industrial output. The World Bank has recently classified Ethiopia as a 'Group A country', thus including it in the category of

countries which 'possess exploitable mineral potential over large geological areas, and which warrant the investment of $10-20 million annually'. Known reserves of metallic and industrial minerals include gold, phosphates, nickel, copper, zinc, platinum and soda ash.

Table I.6. Proven reserves of some minerals, 1994

Type of mineral	Tonnes	Location
Placer gold	3.8	Adola
Primary gold	62.0	Lege Dembi
Nickel	17,000,000.0	Adola
Quartz	300,000.0	Kenticha
Phosphate	4,000,000.0 (P205)	Bikilal
Potash	160,000,000.0	Dallol
Kaolin	500,000.0	Bwanbawawiha
Platinum	12.5	Yubdo
Soda ash	400,000,000	Lakes region
Diatomite	40,000,000.0	Lakes region

Source: Ethiopian Institute of Geological Surveys.

Crucially, February 1995 marked the culmination of a three-month governmental initiative to attract foreign investment into the mining sector, with the Minister of Mining suggesting that the investment code might be revised to improve upon the attractiveness of mining investment. Presently, the corporation tax is set at 45 per cent for large-scale enterprises and a more favourable 35 per cent for smaller ones.

Most recently, four gold prospecting and mining concessions were offered to tender, which attracted a total of 12 bids, although only three of the concessions were ultimately awarded. The winning bidders were the American Canyon Resources for the Megado-serdo area in the Adola gold belt, the Canadian Golden Star Resources in Dul in the west region, and a Swedish-Saudi consortium consisting of the Swedish company, Boliden, and the Saudi National Mining Corporation, was awarded the concession for the Dawi Digati region in the south of the country.

According to mining analysts, it is estimated that each of the above concessions will require an investment in the neighbourhood of $150 million before output can be brought on-stream. But there are strong signs that the projects will become operational, with the three sites cumulatively producing about 30 tonnes annually in five years time. If this materializes, the output will sharply dwarf the annual production of three tonnes generated at the country's only hardrock gold mine at Lega Dembi in the Adola belt.

Energy

In terms of energy, currently, the country is very low consumer and the principal sources of energy remain wood and charcoal. Since 1990, the country's fuel import bill has risen sharply, however, in part reflecting the cessation of favourable pricing agreements with the former Soviet Union and partly due to supply difficulties at the Assab petroleum refinery in Eritrea.

In 1991/92, largely due to war-related disruptions to output and technical constraints exacerbated by shortages of spare parts, production at the Assab facility tumbled to 326,000 tonnes of refined petroleum, down from 708,000 tonnes in 1990. Although production recovered to some 550,000 tonnes in 1992/93 and rose further to 672,000 tonnes in 1993/94, the rise in output has failed to keep pace with demand growth.

As a consequence, the development of energy sources to meet growing demand, and more crucially, to minimize the dependence on import sources has now assumed greater significance. The most promising find thus far has been the 60 billion cubic metres of natural gas at Kalub, in the Ogaden district in the east of the country. Already a company has been established to develop the deposits for direct use and as a feedstock for fertilizer production. The World Bank is poised to provide some $70 million in financial support for the project. Hopes are high that with the World Bank support, production could come on-stream by 1998. Estimates point to initial annual production of some 11,000 tonnes of benzene, 20,000 tonnes of butane, 13,000 tonnes of naphtha and 17,000 tonnes of kerosene. The net effect of these volumes materializing would be an estimated reduction in the country's petroleum imports of some 12-15 per cent.

Presently, oil exploration is being undertaken in the Gambella region in the western part of the country, and the United States-owned Afar Exploration Company has taken over Agip's prospecting interest in the north Afar region. To date, there has been no significant oil finds.

Large coal and shale oil deposits, estimated at 41 million tonnes and 100 million tonnes respectively, were reported in the Delbi and Moye areas of the Ilibabor zone, which if exploited would complement energy output from the Gilgel Gibe hydroelectric plant. Most crucially, it would lessen the dependence on wood for fuel, which according to one estimate causes the deforestation of nearly 1,000 square kilometres per annum.

Much of Ethiopia's electricity is generated by hydroelectric plants which form the basis of the country's 1982-2002 Energy Development Programme. Contributions towards the estimated Br3.7 billion costs have been provided by international organizations and bilateral grants. Following a decline of almost 10 per cent experienced in 1991, electricity output recovered by about five per cent in 1993. However, hydroelectric power generation remains vulnerable to the effects of inclement weather.

Manufacturing

According to the latest statistics from Ethiopia's Ministry of Planning and Economic Development, the manufacturing sector, including handicraft and small-scale industries, accounted for just under seven per cent of GDP in FY 1993/94, and contributes some five per cent of total employment. As in other African economies, manufacturing production is dominated by public sector entities. The private sector comprises of small enterprises typically employing less than 100 people.

For the most part, manufacturing is dominated by light manufacturing and agro-industries - most notably, food processing and textiles and garments, although cement, metalwork, leather, and chemical production are also important. Partly due to infrastructural and logistical bottlenecks, there is a large concentration of manufacturing activity in Addis Ababa, and also along the 100 kilometre stretch between Addis Ababa and Nazareth. Other important manufacturing location includes Bahr Dar in the north-west, Dire Dawa in the east, Dessie/Combolcha in the north and Awassa in the south.

As might be expected, the intensification in the war in the late-1980s and early 1990s exacerbated existing infrastructural difficulties and raw material shortages, with the result that aggregate manufacturing production declined by a massive 43 per cent between 1989 and 1992. Inauspiciously, the situation was made worse by the loss to Eritrea in 1993 of the heavy concentration of industry in that territory.

Although output has since recovered, it is estimated that capacity utilization averaged just 70 per cent in 1994/95. Factories continue to suffer from the lack of critical raw materials, spare parts and endemic power cuts. In fact, despite recent improvements in the operating environment, manufacturing activity remains dogged by numerous problems, including antiquated machinery and the lack of skilled personnel. Although foreign exchange is now more readily available, the devaluation of the currency has sharply increased the costs of raw material imports, and at the same time, high domestic interest rates have deterred domestic borrowing to expand production.

Moreover, the utilization of property as collateral for loans has made entrepreneurs reluctant to borrow to make new capital investments since, as leaseholders, they do not have the security of ownership of the land.

Direct private investment flows into manufacturing all but dried up after the Mengistu regime's nationalization of private assets. Even when the overall policy thrust changed in the late-1980s and foreign direct investment was welcomed, inflows remained hampered by compensation claims and United States legislation which barred investment in Ethiopia. As a consequence, the only foreign-owned manufacturing establishments constructed under the Dergue consisted of Eastern-Bloc investments.

Presently, as the push towards the development of a functioning market economy gathers pace, both domestic and foreign private interest in manufacturing activity is rising sharply. The agro-processing sector is at the forefront, attracting the most investor interest. The United States company, Servtech, is building a large factory with a capacity of 4,000 tonnes of sugar and 45,000 tonnes of ethanol; the project has been made possible through a $50 million of risk insurance provided by the American Overseas Private Investment Corporation. An $80 million African Development Bank (ADB) grant is also being used to finance the construction of another sugar factory at Fincha.

Transport and communication

By every objective criteria, Ethiopia's transport and communication infrastructure can be described as rudimentary. Essentially, the transport infrastructure, consisting principally of roads, is inadequate. The country's main road is the Addis Ababa-Assab road, and only about 20 per cent of the entire road network is paved. There exists only limited interconnecting links between adjacent road, which combined with the inadequate feeder road network leaves large parts of the country isolated.

Cognisant of the crucial role played by an adequate transport infrastructure in the country's overall economic development, the government is giving priority to road construction, and in particular, the rehabilitation and maintenance of the existing road network. Moreover there has been a shift towards greater reliance on the private sector in the provision of road transport services. To this end, the government has abolished the hitherto centralized freight transport allocation of the Katana system and ended all freight tariff regulation and control, including those related to petroleum freight. Additionally, there are plans to sell some of the trucking fleet of the parastatal enterprises to private sector operators.

Banking and finance

In 1975, the socialist government nationalized all commercial banks, financial institutions and insurance companies. Thus, until recently, other than the National Bank of Ethiopia (the central bank) there were just three wholly state-owned banks: the Commercial Bank of Ethiopia; the Agricultural and Industrial Development Bank; and the Housing and Savings Bank. A financial sector reform programme has been implemented recently, part of which has included the restructuring and transformation of the three state-owned banks from specialized banking institutions to universal banks. In accordance with this restructuring programme and the renewed emphasis of greater diversification, the Agricultural and Industrial Development Bank has been renamed the Development Bank of Ethiopia (DBE), and the Housing and Savings Bank is now called the Construction and Business Bank (CBB).

Moreover, the policy of financial deregulation has seen the establishment of the first private bank - Awash International Bank - since 1975. Two further private banks, the Bank of Abyssinia and the Dashen Bank are under formation, although these have yet to be licensed (at December 1995).

The Commercial Bank of Ethiopia is the country's largest bank, and had a capitalization of $40 million in mid-1994. The CBE ranks 19th in Africa in terms of capitalization, and an impressive ninth in terms of asset size, which amounted to $1.7 billion in 1994. The banks' share in total

domestic lending is estimated at some 90 per cent, and its main sources of funds are demand deposits, savings deposits and time deposits.

The Development Bank of Ethiopia is involved primarily in the provision of medium-to-long term loans. These are mainly to the agricultural and industrial sectors, although more recently, the hotels and the construction sectors have become major clients of DBE as well.

With regards to non-bank financial activities, such as pension funds and insurance companies, these are rather rudimentary, although the past year has witnessed an expansion in the size and scope of insurance activities. The biggest pension fund, with assets estimated at some Br1 billion, is run by the government. Also, as with other developing countries, there exists significant financial activity in the informal sector, which is dominated by 'money lenders'.

Tourism

Ethiopia's historical sites and wide diversity of landscape and wildlife make the country an attractive tourist destination. Indeed, the country's unique combination of natural, historical, cultural, archaeological and anthropological attractions underpin its massive tourism potential. But the disruption caused by the war and the damage inflicted on the already underdeveloped infrastructure led to a sharp slump in tourist arrivals. By the late-1970s, the number of arrivals had fallen below 30,000, compared to a peak of almost 74,000 recorded in the early years of the decade. However, in the mid-1980s, there was a gradual recovery in the sector, and by 1987, the number of tourists exceeded 70,000.

In fact, since the mid-1980s there has been a steady annual growth in the sector. According to official figures, the cumulative arrivals over the period 1991-1995 amounted to some 504,000 tourists, an increase of one-third over the total for 1985-1989. Foreign exchange earnings from tourism, which reached $25 million in 1973 had slumped to $9 million by 1977, and remained stagnant at this level until the late-1980s. Again, according to government sources, tourism generated an estimated $40 million in 1993.

In a bid to capitalize on the foreign exchange potential from the sector, government economic policy now places considerable emphasis on tourism. A number of hotels within the private sector have been constructed in the past three years, and the government envisages that over 20 additional hotels will be completed by 1998, as well as the upgrading of existing ones. It is hoped that the planned sale of some government hotels to private sector operators in the near future will bring an enhancement in standards. In the short-to-medium term, the tourism sector should also be a significant beneficiary of the planned extension and improvement of the road and air networks which should permit high volume tourism to historic sites. Currently, in accordance with the government's policy of regional devolution, a number of regional authorities have started to market their own tourist attractions.

The demand structure of GDP

On the demand side, the main dynamic of economic activity is private consumption. This has been in spite of the overwhelming dominance of the public sector during the years of socialist economic development. Private consumption accounted for some 72 per cent of aggregate economic activity in 1988. Following the slow, but steady, rationalization of the public sector and the shift towards greater private sector participation in the economy, the dominance of private consumption in gross economic activity has become even greater. Since 1992, private consumption has accounted for some 86 per cent of GDP.

In parallel with the rising share of private consumption, there has been a concomitant decline in the share of government consumption in GDP. The contribution of government consumption to GDP rose to a recent high of over 18 per cent in 1990, before tumbling to about 10 per cent in 1992. By 1994, however, this had risen again, but only to about 12 per cent.

Gross fixed capital formation, which amounted to almost 20 per cent of GDP in 1988, fell sharply to below 10 per cent of GDP in the early-1990s. However, the government's programme of rehabilitating the war-shattered infrastructure, together with increased private investment, has led to a rebound in aggregate investment. In 1994, the proportion of gross fixed capital formation to GDP had climbed back to almost 17 per cent.

A striking development in the early-1990s has been the increasingly negative contribution of foreign trade to GDP. As the economy recovered, and also more fundamentally, due to the greater availability of foreign exchange, import growth has accelerated sharply. Thus, despite the increase in the export of goods and services, which amounted to over 12 per cent of GDP in 1994, the rapid growth in imports of goods and services meant that in 1994, net trade represented a withdrawal from GDP of some 14 per cent, sharply up from a negative 4.6 per cent in 1992.

Table I.7. Demand structure of GDP, 1988-1994, selected years

	1988	1990	1992	1994
Private consumption	71.8	77.3	86.6	86.3
Government consumption	16.9	18.4	10.3	12.4
Gross fixed capital formation	19.2	8.9	9.3	16.8
Net balance of trade	-7.9	-4.6	-6.3	-13.8
Exports of goods and services	7.8	7.8	4.6	12.3
Imports of goods and services	-15.7	-12.4	-10.9	-26.1
GDP	100.0	100.0	100.0	100.0

Source: International Monetary Fund, International Financial Statistics.

External trade and payments

Merchandise exports are dominated by coffee, which typically accounts for about 70 per cent of total exports. World coffee prices tend to be volatile, but even with the depressed prices of 1990-1993, coffee's share in total export receipts reached some 65 per cent in FY 1992/93. Amid strong international coffee prices for most of 1994, it is estimated that coffee's share in export revenue would amount to almost 80 per cent. Secondary exports include leather goods and hides, which typically account for about 10 per cent of total exports, while goods exports contribute a further five to six per cent of total exports.

Ethiopia's heavy dependence on food imports can best be seen in the country's structure of imports. Excluding FY 1991/92 - the immediate aftermath of the war - when food imports accounted for less than one per cent of total imports, the share of food imports regularly exceed 10 per cent of aggregate imports. Another major import requirement is petroleum, both crude and its derivatives. Since the loss of the refinery facility at Assab to Eritrea, the volume of petroleum imports has risen sharply. The share of petroleum imports to total imports rose from about 10 per cent in 1990-1992, to about 20 per cent in 1993-94.

Table I.8. Structure of imports, 1990/91-1993/94
(Percentage of total)

	1990/91	1991/92	1992/93	1993/94
Food and live animals	12.4	0.8	13.7	10.9
Petroleum	9.9	10.7	22.7	17.5
Chemicals	4.0	2.3	3.7	5.3
Textiles	2.1	4.1	3.6	4.1
Chemicals	4.0	2.3	3.7	5.3
Metal	7.2	2.7	4.8	7.3
Machinery (including aircraft)	26.4	10.5	19.3	6.8
Road vehicles	11.7	9.8	11.1	17.8
Medical and pharmaceuticals	1.7	2.7	3.6	3.6
Other	20.6	54.1	13.8	21.4
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: Ethiopia Customs Authority.

With regards to the geographic distribution of trade, trade with the industrialized countries forms the most significant proportion of the country's aggregate trade. The industrialized countries' share in Ethiopia's exports registered some 90 per cent in 1994. The two main export markets are Japan and Germany, each traditionally accounts for 20-25 per cent of total exports. In 1993, and again in 1994, Germany overtook Japan to become Ethiopia's largest export market. In 1994, exports to Germany alone represented 26 per cent of total exports and Japan contributing a further 20 per cent. Since the collapse of the Mengistu regime, exports to the United States have been buoyant, rising from a share of under five per cent in 1991 to 11 per cent of total exports in 1994.

On the import side, the industrialized countries also predominate. Imports from industrialized countries at 75 per cent in 1994, marginally up on 1991. On a country-by-basis, the United States is the principal source of imports, accounting for some 14 per of the total in 1994. Secondary sources of imports include Germany and the United Kingdom. The importance of the Middle East, primarily Saudi Arabia as a source of energy supplies, is shown by their share in total imports at just under 10 per cent in 1994.

Table I.9. Origin of imports, 1991-1994
(Percentage of total)

	1991	1992	1993	1994
Industrial countries	65.7	72.1	76.0	74.7
United States	13.1	21.7	13.3	14.0
Germany	11.4	8.0	10.0	10.4
United Kingdom	5.5	8.2	8.3	7.2
Japan	9.5	4.0	6.9	7.1
France	3.0	3.4	3.3	5.5
Developing countries	32.0	27.1	23.0	24.4
Africa	9.5	3.9	5.9	7.1
Asia	2.1	6.3	6.5	6.6
Middle East	16.5	14.9	8.6	9.1
Saudi Arabia	10.0	11.7	7.5	7.7
Total ($ million)	**472**	**1,263**	**1,138**	**1,125**

Source: International Monetary Fund, Direction of Trade Statistics.

C. POLICY ENVIRONMENT

Overview

Following years of the pursuit of misguided policies, a principal objective of the present government has been to implement corrective measures to revitalize the economy, as well as create the policy environment conducive to the proper utilization of the country's resources. Thus, as discussed earlier, since 1992, the government has embarked on a programme of economic reform and structural adjustment aimed at establishing a market-based economy. Essentially, the reform programme encompasses three overlapping phases, namely stabilization, structural reform, and the enhancement of international competitiveness.

The first phase of the reform programme, which has been ongoing over the past three years, has sought to establish fiscal, monetary and exchange rate equilibria. In the fiscal area, reforms have sought to eliminate inflationary deficit financing by pursuing a tight fiscal regime, while at the same time attempting to meet the basic requirements for public services and infrastructure. To this end, there has been a reordering of fiscal priorities. The tax structure has been rationalized to enhance revenues, and both consumer and producer subsidies have been systematically eliminated.

Monetary policy has focused on restraining the rate of domestic credit expansion and rationalizing the interest rate structure in order to eliminate discrimination towards the private sector and also to achieve positive interest rates. A significant dimension of monetary policy has been to increase the autonomy of the National Bank of Ethiopia, strengthen the bank's capacity in policy formulation and banking supervision, and to deregulate the financial sector to allow the establishment of private banks and insurance companies.

The second phase of the reform programme is aimed at stimulating a supply response to key reform variables and creating the enabling environment necessary to foster the development of the private sector. The emphasis of reform has included the elimination of controls on prices and distribution, as well as reform of the trade regime. Also central, has been the establishment of the appropriate legal, institutional and regulatory framework to facilitate a deepening of private sector participation in the economy.

The third phase of reform involves the development of appropriate financial sector institutions; and a comprehensive reform of the public sector. This is to include the restructuring/privatization of the plethora of inefficient parastatals and the rationalization of the civil service. Thus, in a nutshell, the government's economic strategy involves limiting government intervention in the economy, enhancing the role of the private sector in both production and distribution, and relying on market forces as the primary mechanism for resource allocation. Central to this strategy has been the devaluation of the birr. In addition to promoting exports, the birr's depreciation to a more competitive level has led to an elimination of cost-price distortions and has improved the transparency and efficiency in the allocation of foreign exchange.

Over the medium term, the thrust of the government's economic policy is expected to focus on the deepening of the reform process, particularly in terms of liberalization, a further improvement in the enabling environment for private sector development, and the acceleration in the pace, as well as a broadening in the scope and extent of the country's much-vaunted privatization programme.

Fiscal policy

Since Ethiopia reached agreement with the IMF over a three-year Structural Adjustment Facility in 1992, the country's international and domestic liquidity crises have abated. In 1993, the country received over $1 billion in aid and debt relief from both multilateral and bilateral donors. In March 1994, the Paris Clubs' Consultative Group on Ethiopia, pledged some $1.1 billion for FY 1994/95, of which some $350 million was slated towards balance of payment support.

As earlier stated, reflecting the reordering of fiscal priorities under the auspices of the economic reform programme, government expenditures have been restructured in favour of infrastructural development and the provision of social services. The agricultural and natural resource sectors have also been given priority. In 1993/94, the agricultural and natural resource sectors accounted for some 22 per cent of capital expenditure. Reflecting the country's extensive reconstruction programme, roads, transport and communications were the single largest component of the capital budget, represented about 25 per cent of total capital expenditures.

Additionally, in line with the government's policy of devolution, an analysis of recent expenditure trends indicates an increasing shift towards local government expenditures. In 1993/94, some 37 per cent of the total budgetary allocation went to the regions.

In addition to the distinct reorientation of public expenditures away from military spending and the initiation of fiscal decentralization, 1994 saw significant income and tax reform. Those earning less than Br120 monthly (about 16 per cent of the workforce), were exempt from the payment of income taxes. Moreover, the number of tax brackets were streamlined to just six and the maximum marginal tax rate of individuals was reduced to 40 per cent versus 80 per cent in 1992. The corporation tax also was reduced from 50 per cent to 45 per cent for larger enterprises and 35 per cent for smaller ones.

Fiscal policy over the near term is expected to focus on further rationalization to minimize fiscal distortions and to seek improvements in revenue performance. In particular, customs and tax administration is expected to be strengthened, while the rationalization of the civil service should permit modest salary increases to be implemented without creating any serious fiscal disequilibrium. Moreover, it is expected that short-term deficit financing will continue to be underpinned by concessional foreign assistance and further debt relief, and in the medium term, the government open market operations (mainly government securities) to bridge any fiscal gaps.

Monetary policy

In some respects, it could be argued that prudent monetary policy has been the cornerstone of the government's reform programme, as evidenced by the crucial role which has been played by the more efficient exchange rate policy. Monetary policy has ensured that rather than simply being driven by the pace of government credit expansion, overall domestic credit growth has been consistent with the requirements necessary to sustain the recovery in the economy.

In particular, monetary policy had to be tight enough to rein-in the greater price pressures engendered by price liberalization and exchange rate adjustments. In 1991, aggregate money supply increased by 17 per cent. In 1992, it increased by a modest 15.1 per cent, but in 1993, money supply growth amounted to just four per cent. In 1994, however, a sharp rise of 19 per cent year-on-year was recorded in money supply growth.

Aside from money supply growth (and foreign exchange stability as noted below), a central tenet of monetary policy has been to ensure the development of positive interest rates. Accordingly, interest rate ceilings were altered to enable rates to more closely reflect 'market-determined' rates. However, the liberalization policy fell short of deregulation due to the rather underdeveloped nature of domestic financial institutions. Thus, presently, the National Bank of Ethiopia still intervenes directly in setting minimum and maximum interest rates. However, it is envisaged that with time, and as the financial sector becomes more developed and sophisticated, interest rates will become more market-determined.

Foreign exchange rate policy

When the government assumed power, the birr had been set at an official rate of Br2.07:$1 for almost a quarter of a century, although by 1991 the parallel market rate amounted to almost Br8:$1. In a bid to correct the pervasive overvaluation of the domestic currency, realign relative prices between tradable and non tradable goods, and also to stimulate exports, the currency was devalued to Br5:$1 in late-1992.

In May 1993, the government introduced a fortnightly foreign exchange auction as a means of making the exchange rate more market-determined. However, the official rate was kept at Br5:$1 for strategic imports, such as the import of petroleum, pharmaceuticals and fertilizers. In April 1994, the official rate was devalued by 2.6 per cent, and in mid-May, a further 8.1 per cent devaluation was implemented, which brought the official rate to Br5.58:$1. Notably, the more liberal foreign exchange regime has led to a sharp improvement in the country's foreign exchange reserves. In 1992, foreign exchange reserves amounted to $54 million - equivalent to less than two weeks of import cover; by early, foreign reserves stood at almost $600 million, or some 4.6 months of imports.

Price policy

The existence of price controls had, for many years, been a feature of the Ethiopian economy. The perverse effects of such controls plus the regulation of trade, both in terms of resource allocation and production and consumption efficiencies, have been discussed elsewhere in this report. In tandem with the government's objective to develop a market economy, the government has systematically liberalized prices, with the result that except for petroleum and pharmaceutical products, virtually all price controls have been dismantled.

At the same time, as part of these efforts to foster the development of a competitive domestic market, the prices of monopoly goods, including public utility goods, have been sharply adjusted upwards to ensure cost recovery on the production side, as well as, facilitate efficiency in consumption.

Trade policy

As part of the transition to a market economy, a number of reform measures have been taken to liberalize the trade regime. In a bid to promote and diversify exports, automatic granting of export licenses was introduced in early 1992. Concurrently, automatic, non-discriminatory and transparent licensing of importers became effective. Thus, import licenses are now automatically granted for all goods, except for a limited number of goods on a negative list. Furthermore, all non-coffee export taxes were eliminated by end-1993, while as part of measures to stimulate exports, the license fees for coffee exporters were sharply slashed.

The comprehensive process of import liberalization pursued by the government has led to the rationalization, as well as the reduction in the rate of effective protection. Notably, the maximin import duty rate has been lowered from 200 per cent to 80 per cent and the structure of import taxes simplified. Additionally, recognizing the need to partly cushion the impact of the birr's devaluation on importers, import surcharges were eliminated in tandem with the devaluation of the currency.

Moreover as part of the reform in the coffee sector and in particular aimed at improving the efficiency of marketing, the Ethiopian Coffee Marketing Corporation was restructured in late-1993 into two entities: the Coffee Sales and Purchase Enterprise; and the Ethiopian Coffee Export Enterprises. In the short-to-medium term, it is expected that trade policy will continue to focus expressly on promoting exports, but perhaps more importantly, on accelerating the removal of cost-price distortions. Specifically, it is envisaged the government will aim to further reduce average nominal tariff rates, and the number of import duty exemptions. On the export side, it is projected that the scope and pace of the government's coffee sector liberalization programme will be accelerated to enhance private sector participation. Finally, to help bring to fruition the programme of export diversification, the government is planning a substantial pro-active campaign to market the country's export potential in overseas markets.

Environmental policy

Environmental issues are a major concern in Ethiopia. The problems of drought and food insecurity afflicted the country during the 1980s, and land related issues continue to generate the major environmental challenges. In particular, degradation and loss of soil is increasing in

Ethiopia every year, as is deforestation. A 1986 study by the United Nations Food and Agricultural Organization concluded that over 1.9 billion tons of soil have been lost from the Ethiopian highlands annually. If this trend were to continue, it estimates that 38,000 square kilometres would be eroded down to bare rock by 2010, with an additional 60,000 square kilometres being too shallow to support cropping.[4/] Deforestation, meanwhile, amounts to 0.3 per cent annually. The quantity of forest-cover in the country has fallen from 40 per cent at the turn of the century to just 4 per cent today. This has caused soil to be washed away, thus exposing bare rock. Deteriorating and disappearing soils, in turn, mean lower yields, for both agricultural produce and livestock.

Traditionally, the environment has not had strong institutional support in Ethiopia, however. No single department within the government has had clear responsibility for it, nor has the existing national legislation been strictly enforced. Nevertheless, more recent activity suggests that the government hopes to improve land use management, water, soil and forest conservation. International actors are already making a contribution. The World Conservation Union, for example, has been involved in the development of a national conservation strategy.

Moreover, Ethiopia, like other developing countries, qualifies for concessional assistance under a variety of international environmental agreements. These present significant opportunities, both for the promotion of sustainable development in Ethiopia and for foreign investment in activities that can advance the same.

D. INDUSTRIAL POLICY

Investment policy

In line with the market-orientated economic policy being pursued, the government enacted Investment Proclamation No. 15 in 1992, which is the legislative instrument which regulates investment in the domestic economy. The 1992 Proclamation provides for major and significant liberalization with respect to private investment, both by local and foreign entities. Critically, the new investment regime actively encourages both domestic and foreign participation in the economy, through a plethora of investment incentives. Moreover, the Proclamation sharply limits the role of the state to only the so-called strategic sectors, including defence industries, imports of armaments, large-scale production and supply of electricity, the post and telecommunications sectors, imports of petroleum, and large-scale air, rail and marine transport services. Other large-scale activities in engineering, metallurgy, mining, pharmaceuticals and fertilizers are also reserved for the state on its own or in partnership with private investors.

To facilitate investment administration, the Investment Office of Ethiopia (IOE) has been established as a 'one-stop shop' to actively promote and coordinate all investment activity in the country. The IOE is supervised by the Ethiopian Board of Investment, which is accountable to the Council of Ministers.

Except for strategic activities reserved for the government, domestic private investors are permitted to invest in virtually all sectors of the economy. In contrast, foreign investment is not allowed in certain activities deemed to be within the capabilities of domestic investors. The rationale of this is to discourage foreign investment in areas which are not particularly capital intensive, and require minimal skills, in terms of technical and managerial know-how.

Significantly, aside from these sectoral restrictions, a minimum capital requirement of $500,000 applies to foreign investment. Additionally, where joint ventures are concerned, the investment regime stipulates that private domestic partners must have a minimum of share holding of 27 per cent. Where the joint venture partner is the state, this threshold increases to 40 per cent.

In an attempt to encourage both domestic and foreign private investment flows, the government provides various incentives, including:

- 100 per cent exemption from the payment of import duties and other taxes levied on imports of capital goods, equipment and spare parts up to 15 per cent of the value of capital invested;
- Exemption from the payment of import duties levied on the import of raw material for production of export-orientated goods;
- Income tax exemption for periods ranging from three to eight years; this is a function of where the investment is located and also the priority accorded to that particular good;
- All research and development expenses are tax deductible; and
- Remittance from the proceeds of the sale or transfer of shares or assets upon liquidation of an enterprises to domestic investors is exempt from the payment of any tax.

In addition to the above incentives, there is unrestricted repatriation of profits and dividends, as well as the unrestricted remittance of fees, royalties, principals and interests on approved foreign loans. The investment legislation prohibits expropriation of assets, except in accordance with the due process of law and upon the payment of adequate and prompt compensation.

In terms of investment protection, Ethiopia has ratified the Multilateral Investment Guarantee Agency convention, providing protection against political and non-commercial risks. A bilateral investment protection accord has also been signed with Italy, and one with Germany is presently pending.

According to statistics from the IOE, a total of 1,641 investment projects were approved between July 1992 and mid-July 1995. Of these, some 677 were in the manufacturing sector, 380 were in the agricultural sector, 239 comprised projects in real estate development and a further 155 were projects in the hotels and tourism sector. The total capital outlays of the projects amount to just over Br11.0 billion, of which some Br5.2 billion consists of equity financing and the remainder is the form of loan financing. The IOE figures also show that about 52 per cent of the estimated investment capital or Br5.78 billion is comprised of foreign currency, while the residual 48 per cent represents the local currency capital requirements. Estimates by the IOE suggest that, when completed, these projects would create employment for almost 100,000 people.

In addition to the above, the Tigray Investment Bureau, which coordinates investments in Tigray, had given approval to 227 projects with an estimated value of Br1.3 billion over the same period. The planned employment generation of these projects is estimated at an additional 131,500.

Table I.10. Summary of approved investment projects, July 1992-mid-July 1995

Sector	Number of projects	Estimated capital (million birr)	Employment
Agriculture	380	1,768.8	20,921
Fishing	3	3.7	446
Mining and quarrying	10	200.0	671
Manufacturing	677	4,658.6	38,942
Construction	33	1,220.2	14,300
Real estate	239	1,427.4	7,866
Wholesale and retail trade	63	227.3	4,176
Hotel and tourism	155	921.1	7,256
Transport	27	282.9	2,715
Banking and insurance	5	98.5	192
Education	12	45.9	493
Health	12	57.0	635
Other social services	25	85.6	1,256
Total	**1,641**	**11,046.1**	**99,879**

Source: Investment Office of Ethiopia.

NOTES TO CHAPTER I

1/ World Resource Institute, *World Resources 1994-1995,* Oxford 1994.

2/ "EU Funds Fishing Development", *African Economic Digest,* 19 June 1995, pp. 35-36.

3/ *Ibid.*

II. THE MANUFACTURING SECTOR

A. GROWTH AND STRUCTURAL CHANGE

Growth

Although Ethiopia has a long history of artisan manufacturing activity, the development of large-scale manufacturing did not occur until the Italian occupation of 1935-1941, and it was not until the mid-1950s that manufacturing began to play any significant role in the economy. The Post-World War Two development in Ethiopian industrialization falls into three broad phases. In the first phase, which lasted from 1952 until 1974, industrialization was characterized by the promotion of foreign investment, the establishment of large-scale foreign-owned enterprises active in import-substitution production and strong growth. In the second phase, from *coup d'etat* in 1974 until the installation of the transition government in 1991, industrial activity in the country was dominated by the nationalization of industry, promotion of state-owned enterprises and stagnation. The third phase, which began with the fall of the Dergue in 1991 and is still on-going, is characterized by the drive to liberalize the economy and promote the development of small and medium enterprises in agricultural and other local resource-based industries.

While the federation of Eritrea with Ethiopia in 1952 was a spur to the development of the country's manufacturing base, the real stimulus during the 1952-1974 period came from the introduction of a series of policies designed to promote foreign investor participation. These incentives included a five- to ten-year tax holiday for new investment; low duties for imported raw materials and export-value-added goods; tax exemption on dividends and the expatriation of profits and proceeds obtained from sale of assets; and high levels of protection to large-scale enterprises. Local financial institutions also provided credit on extremely favourable terms.

These policies were largely successful and industry was a major source of growth for Ethiopia in the 1960s and early 1970s. Between 1963 and 1967, industry grew at an average annual rate of more than 16 per cent and continued at an average annual rate of eight per cent between 1968 and 1974. The contribution of large-scale manufacturing to the country's GDP as a whole, rose from just 2.4 per cent in 1960/61 to 5.4 per cent at the end of 1974.

As expected, the vast majority of businesses established during this period were foreign owned and engaged in import substitution-related activities. Consumer goods products in several manufacturing subsectors were produced including: food stuffs; beverages; tobacco; textiles; leather and shoes; wood; paper; printing; publishing; chemicals; and, metal products. Production was financed primarily by the sale of Ethiopian coffee on the international market.

The growth of small-scale industry during this period was not nearly as robust. These enterprises, which were largely Ethiopian owned, did not benefit from the same government support and encouragement as large-scale enterprises. As a result, although they did experience some satisfactory rates of growth, posting an annual average of six per cent between 1967 and 1974, their relative contribution to the country's total GDP did not rise nearly as much as that of large-scale industries. In 1972/73 it was still only 4.9 per cent, while it had been 4.2 per cent in 1961.

Overall, Ethiopia's industrialization before the mid-1970s had a mixed impact on the economic well being of the country. While it did serve to expand the economy, it did not provide great employment opportunities. Most of the medium- and large-scale industries were capital-intensive. Most also continued to rely upon imports. And, over the period some 80 per cent of the profits were repatriated, not reinvested.[1/]

The 1974 *coup*, however, brought significant changes to the entire Ethiopian economy. One year after coming to power, the new government nationalized virtually all the large-scale industrial operations. The country's new leaders, the Dergue (Committee), moved Ethiopia towards a centrally planned economy with the immediate goal of satisfying peoples' basic needs. Within this framework, large-scale manufacturing enterprises under public ownership were seen as the means by which this goal could best be achieved and these enterprises were accorded priority in the allocation of resources. Some private sector manufacturing enterprises did continue to operate, but they were restricted to a limited range of small-scale manufacturing and handicraft activities.

As a result of the insecurity surrounding, the level of industrial activity declined between 1975 and 1978. Many manufacturing facilities were closed, particularly in the Eritrean region, which at that time accounted for 40 per cent of the country's manufacturing output. But infrastructure, especially transportation and communication, was also affected throughout the country. In addition, the vast majority of expatriate managers and skilled staff left Ethiopia after the nationalizations, resulting in a severe shortage of the expertise needed to run the enterprises.

Much better performance was realized between 1979 and 1981. The security problems were attenuated, and manufacturing enterprises were pushed to their limits. With capacity utilization rates of 70 to 100 per cent, amongst the highest in sub-Saharan Africa, the sector registered growth rates of 15 per cent (1978/79) and 6.5 per cent (1979/80).

By 1981, however, production had once again begun to stagnate. With enterprises already running at full capacity, any further gains in output would have had to have been realized through either productivity increases or new investment. But both were hampered by the fact that agricultural performance during this period was poor. Lower agricultural exports meant lower foreign exchange earnings, which thus limited the country's ability to import the raw materials and spare parts needed by existing enterprises, or capital goods for new investment.

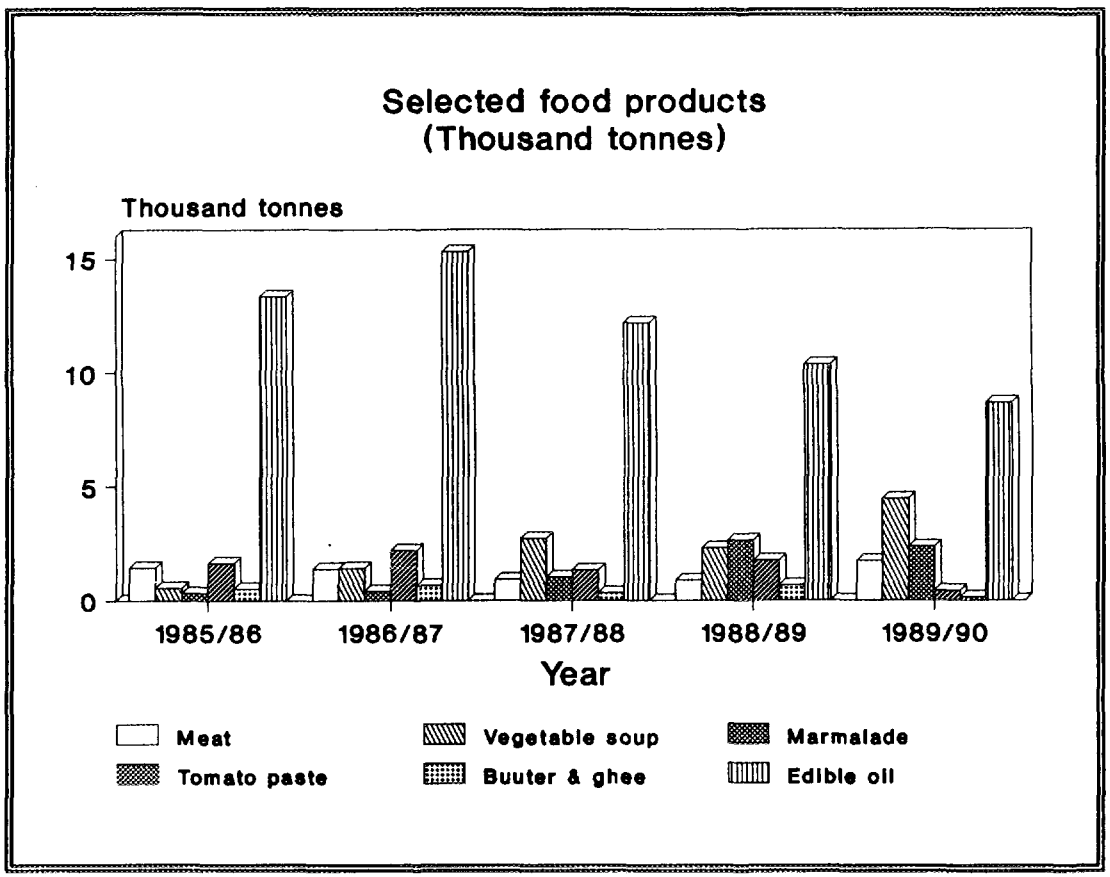
Nevertheless, a major effort was made during the 1980s to establish new large-scale public enterprises and expand existing ones. Some Br640 million was invested over the period and several new enterprises were created, the showpiece of which was the Mugar Cement Factory (built in 1983 with financial assistance from the former German Democratic Republic). Annual growth rates in manufacturing averaged approximately three per cent during this decade.

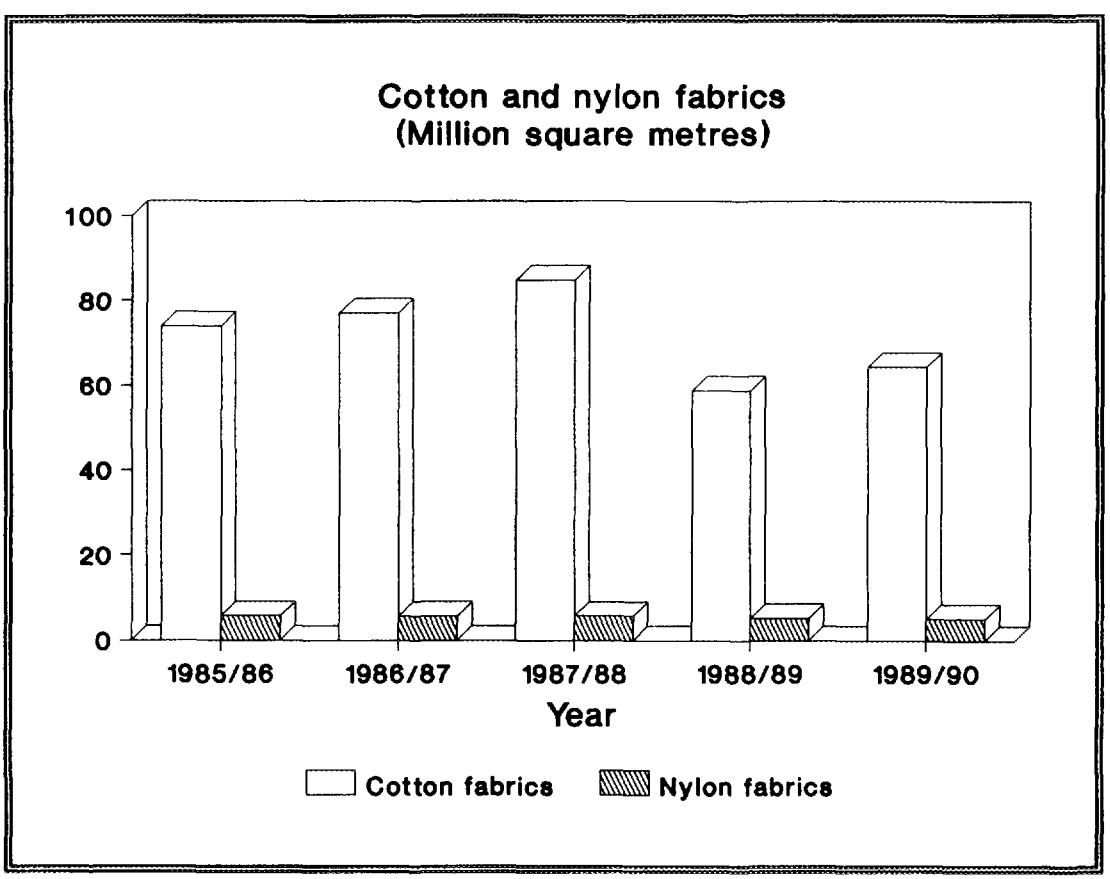
Throughout the Dergue period, the development of small-scale industry was hindered by a number of factors. Practical constraints included the lack of access to a range of essential inputs, particularly skilled labour and raw materials. Several legal constraints were also imposed. First, private enterprises were allowed only to deal in those activities that the state was incapable of taking over. Capital was also restricted. Retail trade enterprises were limited to a capital base of Br200,000, while wholesale trade establishments were limited to Br300,000 and industrial establishment were limited to Br500,000.[2/] The rate of growth of small-scale and handicraft industries after the 1974 revolution fell to practically nil. At the same time, it is estimated that the policies of the Dergue inspired the growth of a large underground economy, perhaps as much as 15 to 25 per cent of total GDP in 1990.[3/]

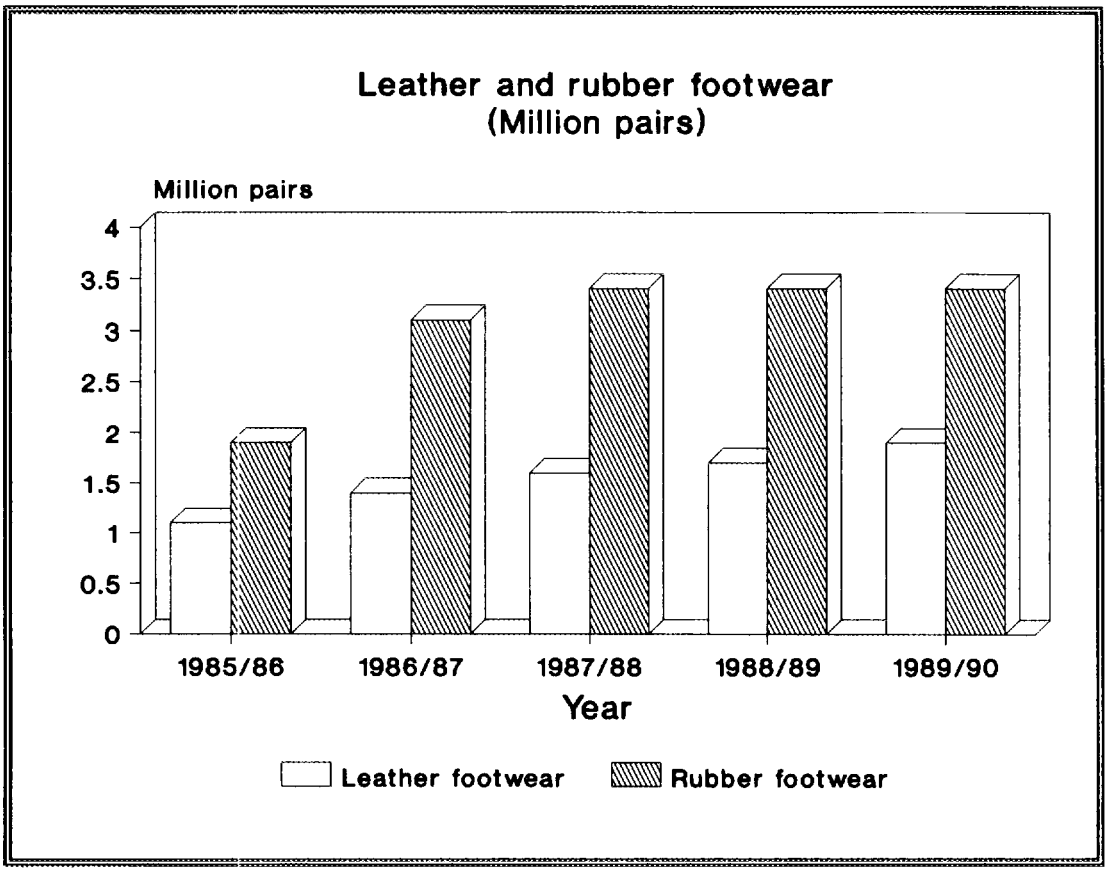
Greater insecurity and the threat of famine towards the end of the 1980s and the beginning of the 1990s had a negative impact on Ethiopian manufacturing activity. Real output declined between 1989 and 1991, with industrial activity falling 14 per cent in real terms and manufacturing value added (MVA) falling 17 per cent in 1990/91 alone.

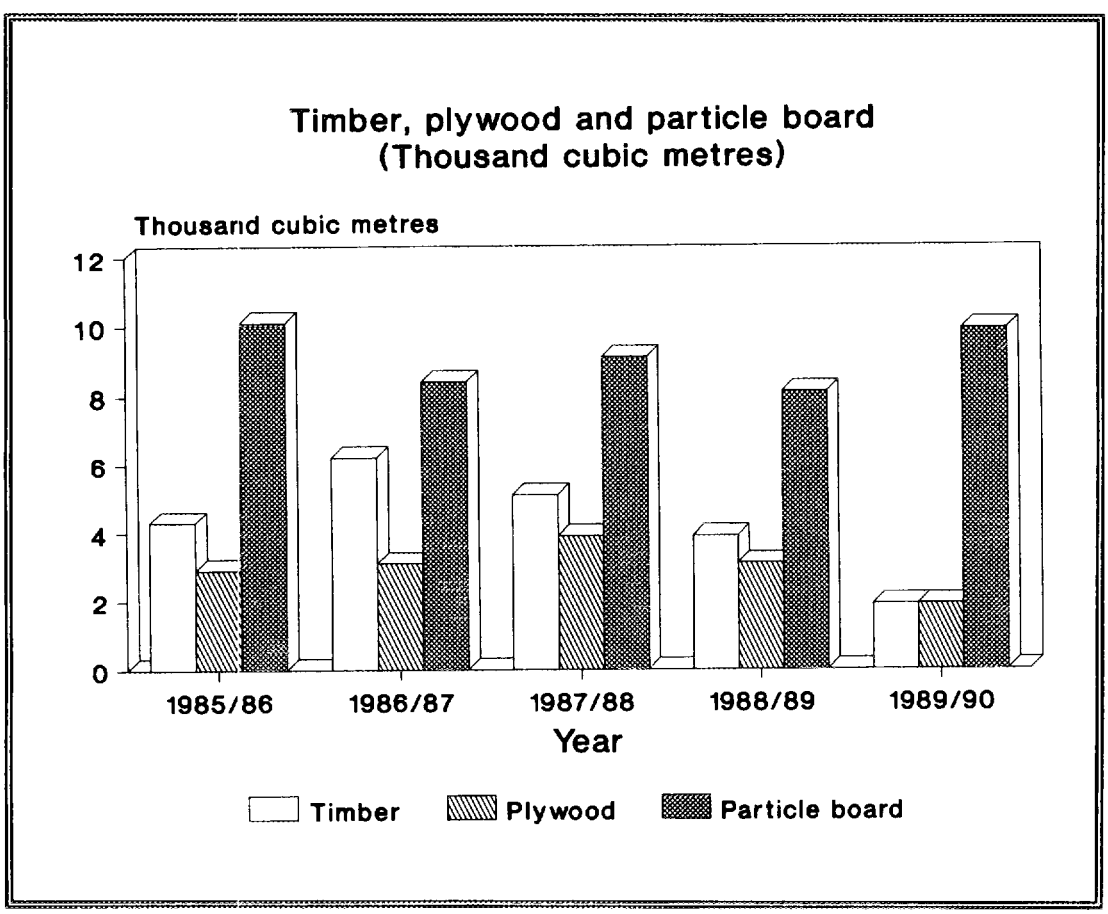
The installation of the transitional government in 1991 brought a new approach to industrial policy and reversed the downward trend in output. Between 1991 and 1992, both industrial output and MVA increased more than 50 per cent. By 1993, output was at historic highs. The new industrial policy, reaffirmed by the recently elected government focuses on the liberalization, privatization and internationalization of the country's manufacturing sector. The first significant measure taken by the transitional government was to declare a 'New Economic Policy'. With regard to manufacturing, the major principles of this included a commitment to replace the hitherto significant role of the state, with greater domestic and foreign private participation.

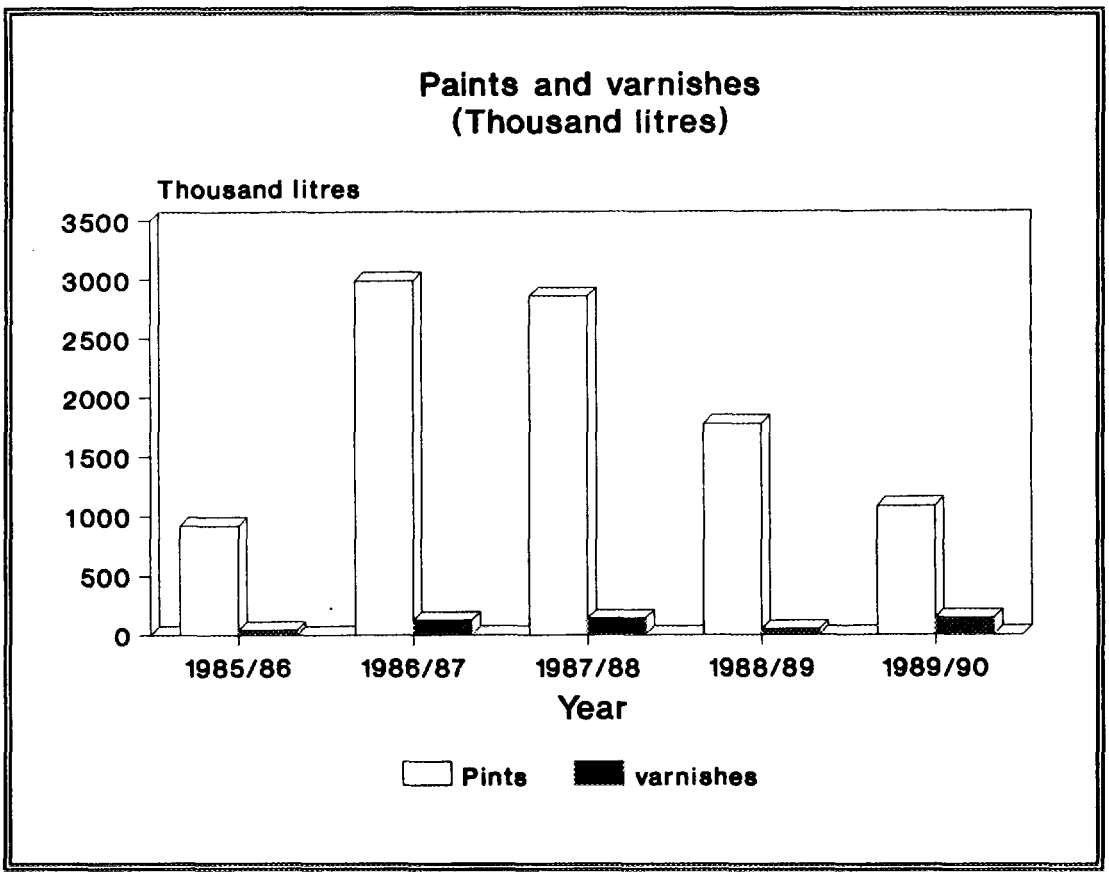
Fig. II.A. Physical volume of output by selected subsectors, 1985/86-1989/90

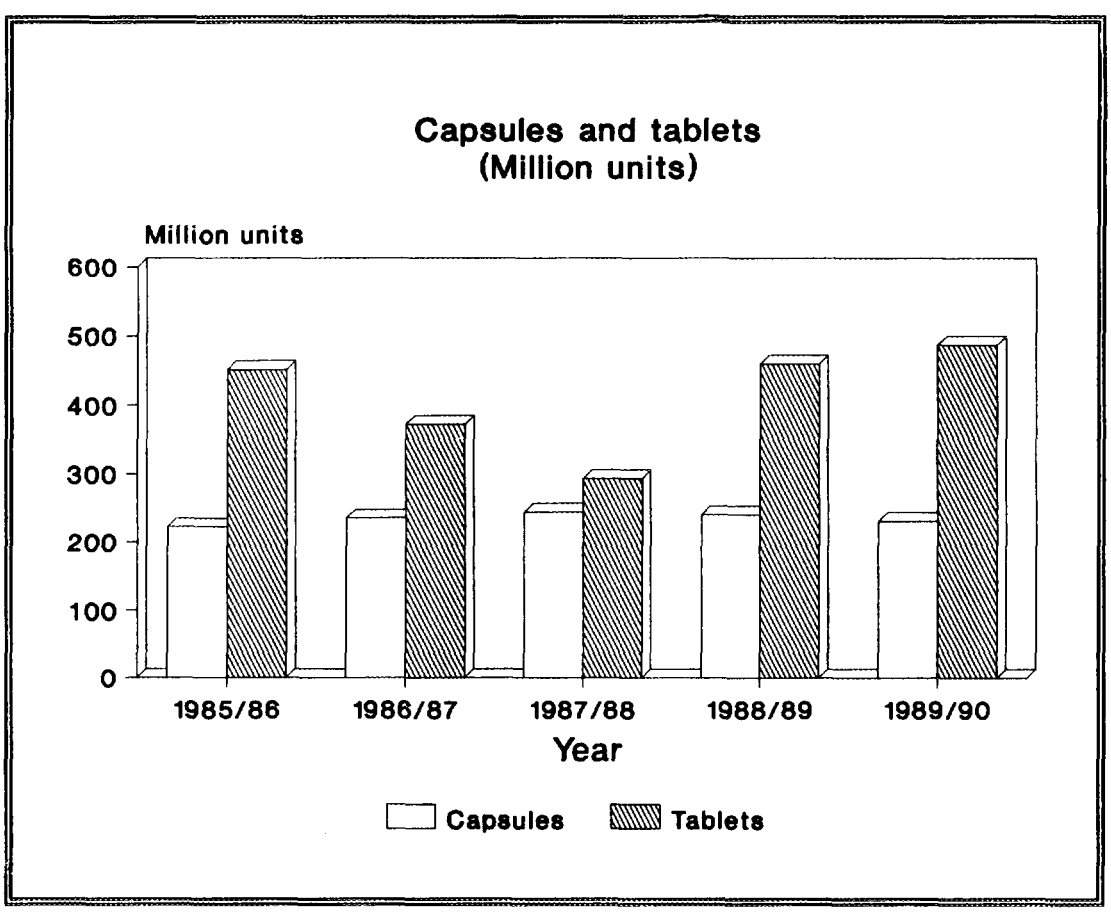


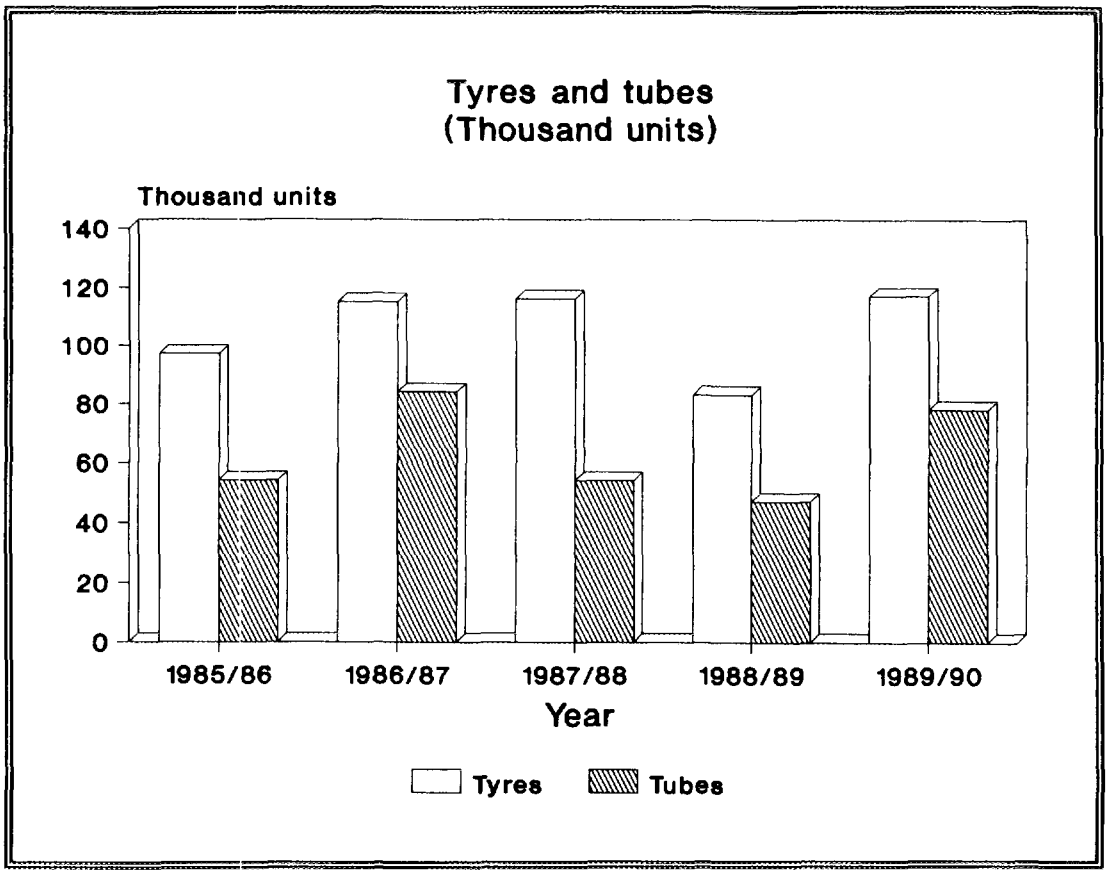


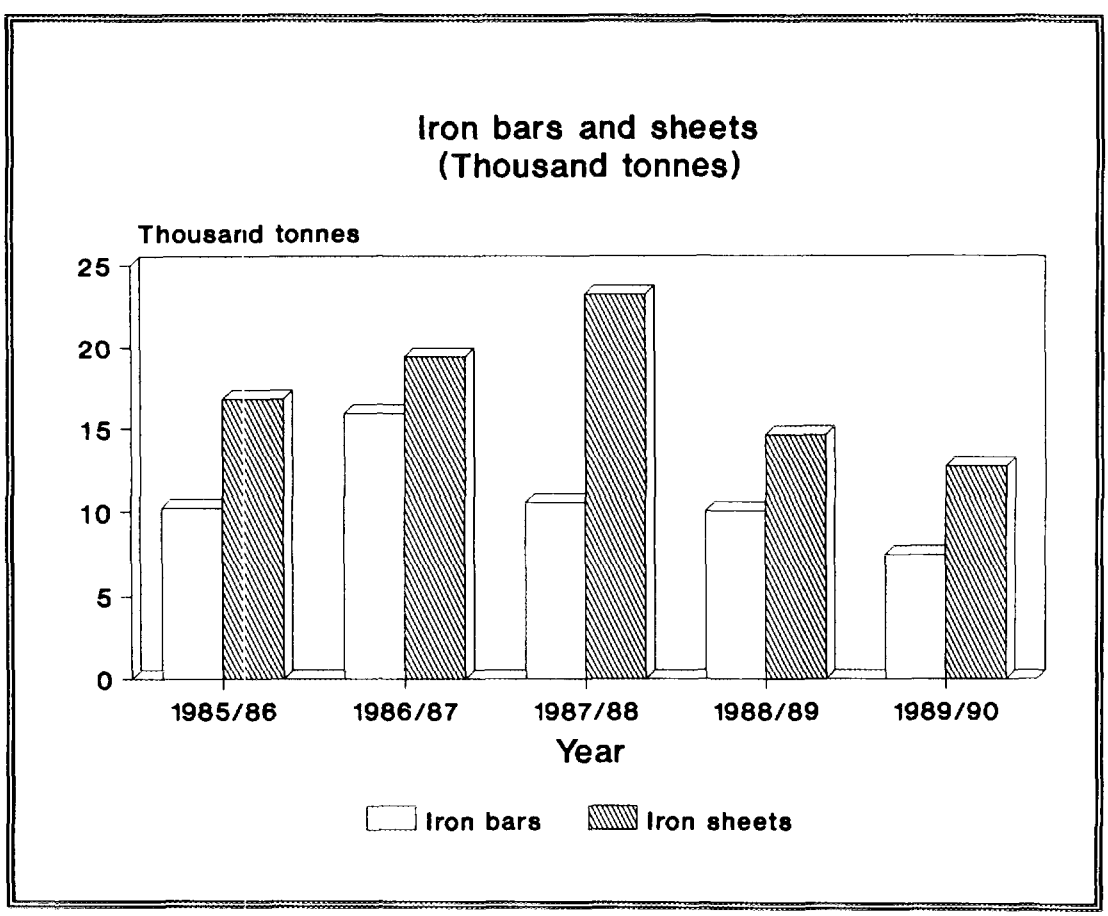

Leather and rubber footwear
(Million pairs)
Million pairs
4
3.5
3
2.5
2
1.5
1
0.5
0
1985/86
1986/87
1987/88
1988/89
1989/90
Year
Leather footwear
Rubber footwear


Timber, plywood and particle board
(Thousand cubic metres)
Thousand cubic metres
12
10
8
6
4
2
0
1985/86
1986/87
1987/88
1988/89
1989/90
Year
Timber
Plywood
Particle board


Paints and varnishes
(Thousand litres)
Thousand litres
3500
3000
2500
2000
1500
1000
500
0
1985/86
1986/87
1987/88
1988/89
1989/90
Year
Pints
varnishes


Capsules and tablets
(Million units)
Million units
600
500
400
300
200
100
0
1985/86
1986/87
1987/88
1988/89
1989/90
Year
Capsules
Tablets


Tyres and tubes
(Thousand units)
Thousand units
140
120
100
80
60
40
20
0
1985/86
1986/87
1987/88
1988/89
1989/90
Year
Tyres
Tubes


Iron bars and sheets
(Thousand tonnes)
Thousand tonnes
25
20
15
10
5
0
1985/86
1986/87
1987/88
1988/89
1989/90
Year
Iron bars
Iron sheets

The more recently announced strategy of 'Agricultural Development-Led Industrialization' (ADLI) has as its primary goals the improvement of the Ethiopian peasantry's productivity and the development of an Ethiopian industrial sector that is both labour-intensive and utilizes local raw materials. Supporting this, a number of subsidiary targets have been identified, including:

- the promotion of economic efficiency and growth;
- the promotion of inter- and intra-sectoral linkages;
- the development of domestic technological capabilities for the production of intermediate inputs, spare parts and capital goods;
- the creation of a sound base for the transfer, adoption and development of technology;
- the achievement of international competitiveness in areas of clear comparative advantage in industrial exports;
- the greater use of labour intensive technology and local resources; and
- the promotion of balanced regional industrial development.

Thus, the ADLI is intended to promote the unhindered participation of the private sector in all fields of economic activity, within a framework of private property rights and competitive markets. It is accepted that the external and export sectors will be vital to the successful implementation of the ADLI.

Structural change

The range of goods manufactured in Ethiopia is relatively narrow as can be seen in Table II.1. Also noticeable from the data, is the fact that the pattern of production has changed very little over time. The three major subsectors in the late 1980s, were the same as those in the 1960s and 1970s: food, beverages and textiles. These three sectors have consistently accounted for over 50 per cent of the gross value of production, manufacturing value added, and employment since well before the 1974 revolution.

Table II.1. Manufacturing production, 1985/86-1989/90

Product	Unit	1985/86	1986/87	1987/88	1988/89	1989/90
Meat	Tonnes	1,470	1,388	915	901	1,746
Vegetable soup	Tonnes	574	1,440	2,725	2,305	4,455
Zigin and shiro wet	Tonnes	1,777	3,869	5,072	11,961	12,158
Orange juice	Tonnes	-	-	144	20	29
Marmalade	Tonnes	351	435	1,040	2,625	2,343
Tomato paste	Tonnes	1,664	2,210	1,343	1,762	413
Milk pasteurized	Hectolitres	130,246	127,708	146,567	145,061	113,461
Butter and ghee	Tonnes	537	674	349	683	142
Cheese	Tonnes	95	208	153	122	12
Edible oil	Tonnes	13,336	15,302	12,158	10,356	8,669
Oil cakes	Tonnes	26,408	33,067	37,225	29,166	36,984
Flour (wheat)	Tonnes	169,512	163,616	179,266	173,892	176,934
Flour (other)	Tonnes	18,759	14,282	16,994	10,484	34,004
Fafa, dube, edget, meten	Tonnes	21,600	11,320	11,742	14,257	14,717
Macaroni and pasta	Tonnes	18,663	17,873	18,361	17,090	15,240
Biscuits	Tonnes	182	146	85	69	65
Galetta	Tonnes	8,323	8,310	6,593	11,344	19,051
Bread	Tonnes	32,185	29,476	41,679	42,835	156,977
Sugar	Tonnes	181,196	167,784	175,084	177,974	171,263
Molasses	Tonnes	64,297	57,740	60,918	60,196	58,604
Sweets	Tonnes	3,140	3,635	3,737	3,535	2,496
Animal feed	Tonnes	22,070	28,816	28,294	30,138	28,192
Beer	Hectolitres	576,225	596,247	668,168	603,256	499,488
Wine	Hectolitres	95,101	96,573	95,920	95,385	94,781
Liquors	Hectolitres	53,515	52,614	38,022	51,445	62,186
Alcohol	Hectolitres	7,695	4,590	6,345	7,729	6,455
Lemonade	Hectolitres	713,440	707,468	872,914	774,401	599,354
Mineral water	Hectolitres	208,103	232,016	244,305	238,985	236,813

continued

Table II.1. (continued)

Product	Unit	1985/86	1986/87	1987/88	1988/89	1989/90
Malt	Tonnes	9,712	10,487	11,008	10,407	12,505
Cigarettes	Thousand units	2,545,000	3,026,207	2,933,440	2,607,410	2,257,640
Pipe tobacco	Kilogrammes	352	1,879	1,276	177	-
Cotton fabrics	Thousand square metres	74,010	77,173	84,837	58,489	64,484
Nylon fabrics	Thousand square metres	5,706	5,698	5,700	5,229	5,005
Acrylic yarn	Tonnes	-	-	-	-	658
Cotton yarn	Tonnes	9,862	10,502	8,934	6,250	8,983
Blanket (woollen)	Units	631,687	415,865	450,819	463,802	384,461
Blanket (waste cotton)	Units	530,770	796,631	751,454	653,152	595,849
Carpets	Square metres	33,445	32,686	39,304	31,000	-
Gunny bags	Tonnes	8,450	11,628	10,038	11,488	9,602
Hosiery	Dozen	70,352	124,291	170,593	190,516	65,895
Sewing thread	Tonnes	-	-	-	-	181
Embroidery	Tonnes	-	-	-	-	50
Jano	Tonnes	-	-	-	-	68
Leather shoes and boots	Pairs	1,082,711	1,386,867	1,605,231	1,681,392	1,976,365
Canvas and rubber shoes	Pairs	1,984,309	3,085,796	3,425,124	3,431,157	3,390,409
Plastic footwear	Pairs	47,238	109,200	206,556	210,240	-
Leather upper and lining	Thousand square metres	9,183	10,558	11,216	13,216	15,011
Leather sole	Tonnes	358	347	257	233	76
Semi-processed skins	Thousand units	6,268	7,587	9,005	11,365	7,540
Crust hides and wet blue hides	Thousand units	4,528	5,275	6,649	7,346	8,440
Timber	Cubic metres	4,387	6,250	5,113	3,971	4,946
Plywood	Cubic metres	2,956	3,071	3,986	3,130	1,955
Particle board	Cubic metres	10,144	8,485	9,067	8,177	9,910
Soap	Tonnes	11,700	16,759	12,056	10,588	8,603
Carbon dioxide	Cubic metres	480	704	779	770	788
Oxygen	Cubic metres	106,409	137,253	186,010	155,726	174,486
Plastic crate	Thousand units	330	251	183	122	164
Paints	Thousand litres	918	2,987	2,854	1,777	1,081
Varnishes and lacquers	Thousand litres	41	123	138	45	140
Capsules	Thousand units	222,910	235,828	244,842	240,343	231,276
Tablets	Thousand units	451,219	372,463	393,963	459,750	487,972
Antibiotics	Thousand units	6,712	7,422	9,618	9,078	7,858
Syrup	Thousand litres	121	142	132	181	150
Ointment	Tonnes	87	162	132	200	216
Injection of 100 A	Thousand units	6,273	5,523	4,746	8,823	7,638
Tyres	Units	97,567	115,460	116,036	83,072	117,926
Tubes	Units	54,705	84,548	54,636	47,921	78,272
Electric wires	Thousand metres	7,551	4,813	7,169	7,202	7,256
Polyethylene products	Tonnes	907	1,002	720	632	694
Candles	Tonnes	133	269	174	170	155
Ball pen	Thousand units	6,304	8,270	14,181	6,804	4,214
Cement	Tonnes	238,532	308,274	364,591	366,501	323,676
Cement blocks and tubes	Thousand units	2,807	2,386	2,088	1,421	1,800
Cement floor tiles	Square metres	186,525	166,243	159,682	154,517	143,666
Bricks of clay	Thousand units	8,900	10,047	14,715	17,793	19,010
Lime	Tonnes	5,747	5,623	3,967	2,631	3,040
Glasses	Thousand units	1,939	1,188	-	-	113
Glass bottles	Thousand units	12,923	3,563	-	8,912	1,983
Iron bars	Tonnes	10,269	15,961	10,513	10,093	7,447
Wires	Tonnes	575	441	269	569	377
Nails	Tonnes	3,319	3,405	3,633	2,336	953
Iron sheets	Tonnes	16,826	19,419	23,299	14,665	12,750
Crown cork	Thousand units gross	3,784	4,295	4,669	3,475	3,261
Motor vehicle spring	Tonnes	195	205	194	202	347

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1989.90 G.C.)* (Addis Ababa: Central Statistical Authority, April 1993), pp. 99-100. (Figures are only for those enterprises with at leat ten employees).

The domination of the three sectors identified above, food, beverage and textiles, is also evident. However, Table II.2 does reveal that the contribution of the beverages subsector to total MVA has been gradually declining, to such an extent that the late 1980s' rise in the production of other subsectors, particularly leather and footwear and tobacco, has placed its position as third-largest contributor to value added in jeopardy. Table II.3 presents the distribution of gross value of production among different industrial groups.

Fig. II.B. Structure of manufacturing value added, 1985/86 and 1989/90
(Percentage)

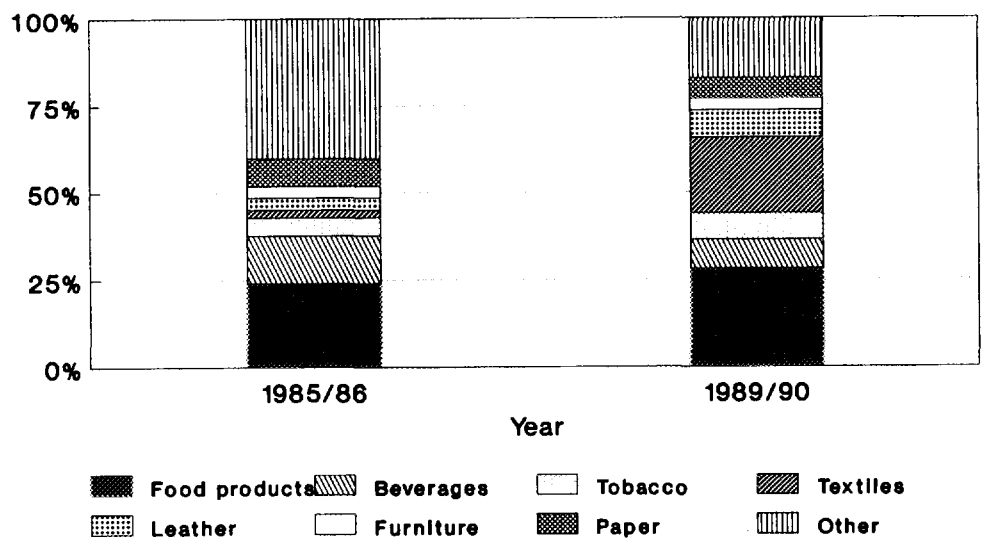


Table II.2. Structure of manufacturing value added, 1985/86-1989/90
(Percentage)

Industrial group	1985/86	1986/87	1987/88	1988/89	1989/90
Food	24.80	19.02	19.01	26.00	28.29
Beverage	13.85	12.89	12.50	10.13	8.39
Tobacco	5.21	7.87	5.83	6.22	7.58
Textiles	21.29	24.61	22.86	20.99	21.67
Leather and footwear	3.64	5.74	8.13	8.47	7.97
Wood and furniture	3.42	2.54	3.19	3.45	3.57
Paper and printing	8.19	7.72	5.99	6.63	5.86
Chemical	9.92	10.52	9.81	7.76	8.38
Non-metal	3.48	2.57	4.50	4.28	3.88
Metal	6.20	6.51	8.17	6.07	4.42
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1989.90 G.C.)* (Addis Ababa: Central Statistical Authority, April 1993). pp. 97-98. (Figures are only for those enterprises with at leat ten employees).

Table II.3. Gross value of production by industrial group, 1985/86-1989/90
(Percentage share)

Industrial group	1985/86	1986/87	1987/88	1988/89	1989/90
Food	25.30	23.50	22.37	26.56	26.65
Beverage	16.68	16.95	17.84	18.56	17.81
Tobacco	6.40	7.06	6.83	6.57	7.47
Textiles	19.93	20.06	20.04	16.58	18.39
Leather and footwear	6.38	6.91	8.45	9.09	8.96
Wood and furniture	2.03	1.77	1.86	1.87	1.90
Paper and printing	4.91	4.69	4.05	4.25	4.15
Chemical	7.02	7.90	7.41	6.50	7.24
Non-metal	3.61	3.13	3.57	3.61	2.98
Metal	7.73	8.04	7.58	6.41	6.07
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1989.90 G.C.)* (Addis Ababa: Central Statistical Authority, April 1993), pp. 89-90. (Figures are only for those enterprises with at leat ten employees).

Diversification, or even significant expansion, of the manufacturing base has been inhibited by a number of factors. Most significantly, the sector has not been able to provide the inputs for its own growth. The preference during the Dergue period for modern and expensive machinery increased the country's dependence upon imported capital goods and spare parts. This caused both short-term difficulties in terms of balance of payments problems or simply having to 'do without', and longer-term liabilities in terms of an ever-growing debt burden. It also inhibited the development of an indigenous capital goods and engineering industry.

The fact that the expansion that took place in manufacturing during the Dergue period was large-scale and capital-intensive also inhibited growth in employment opportunities as noted above. This was further exacerbated by the problems associated with a shortage of skilled managerial and technical staff. The contribution of rural development also remained low during this period. Aware of these problems, the new policies for manufacturing initiated under the New Economic Policy and Agricultural Development-Led Industrialization, as briefly outlined above, are designed to overcome these shortcomings.

Nonetheless, Ethiopian manufacturing continues to be characterized by a 'double-dualism' of - medium (50-399 employees) and large-scale (more than 400 employees) enterprises versus small-scale (10-49 employees) on the one hand, and public versus private ownership, on the other. Government figures for 1989/90 suggest that there were 121 small-scale enterprises and 183 medium- and large-scale enterprises in operation.[4/]

With respect to the public/private ownership division, although the number of establishments was virtually identical in 1990, 158 public enterprises and 155 private enterprises, the public enterprises dominated on every other measure. For example, they accounted for 96.5 per cent of the gross value of production, 94.5 per cent of all wages paid, 98.0 per cent of fixed capital assets, 98.9 per cent of investment in fixed assets and 94.4 per cent of all employees.[5/] The subsequent independence of Eritrea has resulted in a drop in the number of public enterprises in Ethiopia to 119.

B. INDUSTRIAL EMPLOYMENT

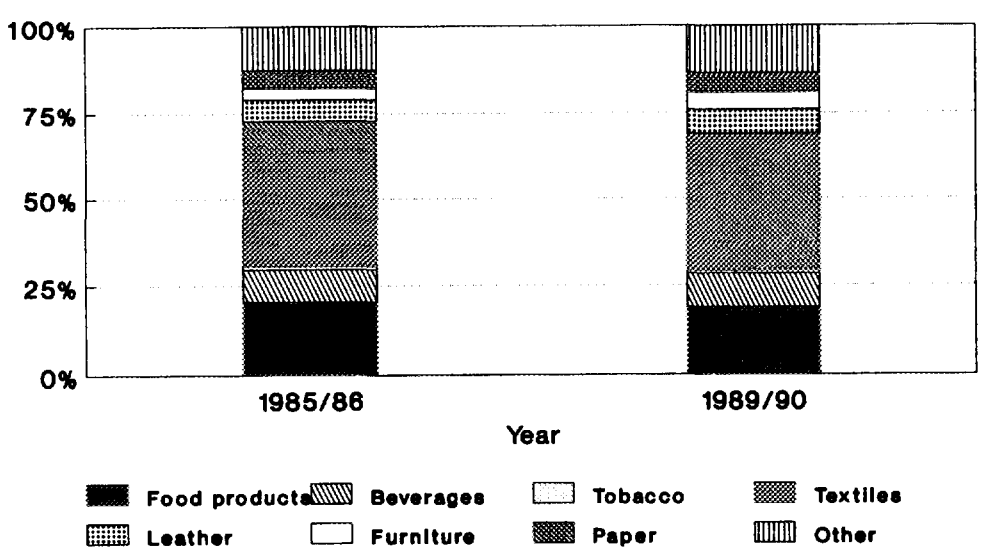
Quantitative trends

The contribution of manufacturing to total employment in Ethiopia is small. Statistics on the number of people employed in manufacturing are scare. UNIDO experts estimated that the figure in 1990 was approximately 105,000 persons. Others have suggested that it contributes about three per cent to the country's total employment.[6/] Official figures for the public sector in 1992/93 indicated that just under 78,000 were employed in public sector enterprises. Figures for 1989/90, counted 4,586 employees in those 22 private-sector establishments that had at least 10 employees. Smaller enterprises might contribute another 10,000 to 30,000 employees to the total figure.[7/] Regardless, it is clear that the agricultural sector remains the dominant source of employment for the Ethiopian labour force accounting for 85 per cent of total employment.

The number of people employed in manufacturing grew as the scale of activity in the sector grew during the 1950s and 1960s. In 1956, there were about 19,000 workers in the manufacturing industries, while by the end of 1962, there were some 29,000. On the eve of the Ethiopian revolution, there were about 150,000 permanent industrial workers. Of these, the food and textile industries accounted for 37 per cent and 34 per cent of employment respectively. And, of the 37 per cent of the labour force employed by the food sector, the H.V.A. sugar company employed 70 per cent.[8/] Moreover, large-scale enterprises dominated with 68 per cent of all employees in establishments with more than 500 workers.[9/]

During the Dergue period, staffing levels in manufacturing (and, indeed, in all sectors) were largely inflexible. The terms of the Labour Proclamation (No. 64/1975) offered workers considerable protection against redundancy including prior notice of up to three months, powers of appeal, automatic severance pay of two months salary and redundancy compensation of one month's salary for the first year of employment and one-third of a month for each of the remaining years. The rate of growth of employment during this period was steady, yet modest. It rose from approximately 77,000 in 1980 to an estimated 88,000 in 1985, and then to 105,000 in 1990.

Fig. II.C. Structure of manufacturing employment, 1985/86 and 1989/90
(Percentage)



This growth, however, was not in response to actual increases in the demand for labour, for the capital intensive nature of the new investments meant that they did not generate significant amounts of new employment opportunities. Rather, the growth resulted from over-manning as the result of the Dergue government policy of absorbing all graduates from university, and commercial and technical high schools. This policy also deprived the private sector of skilled manpower.

Table II.4 displays the distribution of employees in 1992/93, in public manufacturing enterprises, while Table II.5 presents information about employment in all manufacturing enterprises with more than 10 employees. The largest single employer in the public sector was the textiles industry, which had over 38 per cent of the total, while the food industry was second, with almost exactly half of that share (19 per cent). The beverages industry was third, with 9.5 per cent of the total employees. These relative shares had remained virtually constant for the previous five years. Indeed, so too had the total number of people employed in these large public enterprises in each of the years between 1987/88 and 1992/93 when the figure fluctuated between a narrow band of 77,000 and 81,000.[10]

Table II.4. Employment (absolute numbers and relative share) in public enterprises, by industry branch, 1992/93

Food	Beverage	Tobacco	Textile	Leather	Wood	Non-metal	Printing	Chemical	Metal	Total
15,118	7,421	984	29,712	6,283	4,297	4,446	5,613	2,874	1,138	77,885
19.4	9.5	1.3	38.1	8.1	5.5	5.7	7.2	3.7	1.5	100.00

Source: *Facts About Public Manufacturing Enterprises, Trade & Tourism* (Addis Ababa: Industry and Trade Department, March 1995), p. 9.

Table II.5. Structure of manufacturing employment, 1985/86-1989/90

Industrial group	1985/86	1986/87	1987/88	1988/89	1989/90
Food	20.48	21.04	19.62	19.03	18.81
Beverage	9.12	9.65	9.23	9.46	9.50
Tobacco	1.10	1.01	1.03	1.05	1.05
Textiles	41.81	40.52	41.54	40.41	39.67
Leather and footwear	6.16	5.96	6.08	6.37	7.17
Wood and furniture	3.31	3.34	3.67	5.26	4.91
Paper and printing	5.19	5.38	5.42	5.51	5.44
Chemical	4.93	5.31	5.29	5.29	5.47
Non-metal	5.03	4.66	4.90	4.32	3.98
Metal	2.87	3.14	3.22	3.30	4.01
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E. C. (1 989190 G. C.)* (Addis Ababa: Central Statistical Authority, April 1993), pp. 85-86. (Figures are only for those enterprise with at least ten employees.)

With the installation of the transition government in 1991, a new approach to labour policy has been adopted, giving greater autonomy to management. The government's policies on wage and employment are now geared towards liberalization of the labour market by removing restrictions

on labour mobility, employment and wage rates (with the exception of the government-set minimum wage). The goal of these policies is to generate employment by encouraging the use of labour-intensive production methods. Such policies have caused the inevitable shake-up among employment structures and there have been a number of redundancies in the public sector enterprises. Twenty to 30 per cent of the workforce may eventually be laid off.

Ethiopia has a large pool of unskilled and semi-skilled workers upon which potential employers can draw. Although there are presently shortages of managers, trained production supervisors and some kinds of engineers, the new liberalization of the labour market is bound to encourage a new supply (both Ethiopian and foreign) ready to meet demand.

Educational background and skill levels

At the time of the 1974 revolution, Ethiopia was at an extremely low level of development in terms of educational and skill levels, even in comparison to other African countries. In 1973, for example, the enrolment rate for primary school age children (seven to 12 years) was only 18 per cent. The illiteracy rate that year for the population over the age of 10 years was an astounding 90 per cent. And, there was a significant urban bias in education. In 1974, the rural population, which accounted for 90 per cent of the population, only made up 50 per cent of those enroled in an educational facility.

Under the Dergue regime, basic education was given a high priority and a number of achievements were made in the 1974-1984 period. Subsequent efforts were hampered by the problems of famine and insecurity between 1984 and 1989. Many steps were taken to increase literacy including the National Literacy Campaign which the government launched in July 1979. These efforts were extremely successful and by 1990 the literacy rate had increased to 66 per cent. The government was also able to make headway in the reduction of the urban bias in education. Table II.6 reveals the dramatic increase in the number of people attending school between 1974 and 1989.

Table II.6. School attendance, 1974 and 1989

Level/Type of schooling	1974	1989	Annual change (Percentage)
Pre-school	7,570	87,355	19.1
Primary school	859,800	2,855,846	9.0
Junior secondary school	101,800	447,587	11.2
Senior secondary school	81,300	426,413	12.6
Special education	522	1,537	8.0
Technical education facility	5,500	4,101	-2.1
Primary teacher education facility	3,100	4,142	2.1

Source: Kinfe Abraham, *Ethiopia: From Bullets to the Ballot Box* (Lawrenceville, NJ, NJ: Red Sea Press, 1994), p. 232.

Despite these efforts and the increase in the numbers of people attending school, the percentage of the eligible population enroled in an educational facility in Ethiopia remains low. It is below not only the average for developing countries, but also for those labelled least-developed. Only 59 per cent of the country's children who are eligible ever enter primary school. In total, only 28 per cent of the country's children are enroled in primary school, and secondary enrolment stands at only 15 per cent. Meanwhile, the figure for tertiary enrolment in 1988 was only one per cent. Enrolment in technical subjects at the secondary level is even lower, and stands at only 0.5 per cent of all secondary enrolment, as compared with 4.7 per cent for all least-developed countries and 7.5 per cent for sub-Saharan Africa as a whole.[11/]

As a consequence, Ethiopian workers have low skill levels. The United Nations Development Programme (UNDP) estimates that the average member of the Ethiopian workforce has had only one year of schooling.[12/] Moreover, there are significant gaps in the range of skills available - particularly in the area of upper and middle management.

Recent developments, however, bode well for the future. Much of the 'peace dividend' that has resulted from the cessation of hostilities has been channelled into the country's education budget. Moreover, skilled personnel, who fled during the Dergue years, are reported to be considering a return to the country. Finally, there are also efforts to use the country's educated individuals more usefully. For example, the practice of automatically hiring graduates of higher level institutions into the public service has been discontinued.

The role of women

Although the Dergue regime initiated a number of changes in the legal arrangements concerning marriage, divorce and property ownership, custom and tradition still play an important role in the lives of women and the opportunities open to them. The result is that women are still limited in their participation in the modern sector. For example, the participation rate of women in the manufacturing sector barely increased over the decade of the 1980s, rising from 29 per cent in 1979-80, to just over 31 per cent by 1989/90.[13/] And, as can be seen in Table II.7, when women are employed, it tends to be in traditionally "female occupations". Textiles provided the majority of opportunities in manufacturing employment, with just over 58 per cent of all employed women. Together, these women made up almost half of the workers in the manufacture of textiles. Smaller enterprises (less than 10 employees), not included in the figures above, are also substantial employers of women.

Table II.7. Employment by sex and industrial sector, 1989/90

Industrial group	Male	Percentage share	Female	Percentage share	Total
Food	12,602	81.13	2,932	18.87	15,534
Beverage	5,935	75.67	1,908	24.33	7,843
Tobacco	576	66.36	292	33.64	868
Textiles	17,797	54.32	14,965	45.68	32,762
Leather and footwear	4,460	75.38	1,457	24.62	5,917
Wood and furniture	3,591	88.60	462	11.40	4,053
Paper and printing	2,951	65.72	1,539	34.28	4,490
Chemical	3,192	70.67	1,325	29.33	4,517
Non-metal	2,906	88.49	378	11.51	3,284
Metal	2,883	87.34	418	12.66	3,301
All manufacturing	56,893	68.90	25,676	31.10	82,569

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1 989,190 G.C.)* (Addis Ababa: Central Statistical Authority, April 1993), pp. 24-25. (Figures are only for those enterprises with at least ten employees.)

A more dramatic rise in female participation has been experienced in education, however. As Table II.8 shows, girls, as a percentage of total number of pupils, increased during the 1970s and 1980s, with particularly strong increases in the senior secondary level. In 1989, girls made up about 40 per cent of all of the country's students. Still, less than half (45 per cent) of all girls enter primary school when they are eligible, a figure below the average for least developed countries.

Table II.8. Trends in school enrolment, by level and sex, 1974-1989, selected years

	1974	1984	1986	1989
Primary				
Total	859,800	2,497,100	2,448,800	2,855,800
Boys	585,600	1,560,500	1,491,300	1,743,000
Percentage share	68.11	62.49	60.90	61.03
Girls	274,200	936,600	957,500	1,112,800
Percentage share	31.89	37.51	39.10	38.97
Junior secondary				
Total	101,800	303,600	363,100	447,600
Boys	71,200	194,500	221,100	263,800
Percentage share	69.94	64.06	60.89	58.94
Girls	30,600	109,100	142,000	183,800
Percentage share	30.06	35.94	39.11	41.06
Senior secondary				
Total	81,300	276,200	292,400	426,400
Boys	62,100	177,800	178,700	258,800
Percentage share	76.38	64.37	61.11	60.69
Girls	19,200	98,400	113,700	167,600
Percentage share	23.62	35.63	38.89	39.31

Source: Kinfe Abraham, *Ethiopia: From Bullets to the Ballot Box* (Lawrenceville, NJ: Red Sea Press, 1994), p. 241.

C. PRODUCTIVITY AND PERFORMANCE

Output

Based on data from the Ethiopian government (Table II.9), the share of value added in the gross output of the manufacturing sector as a whole remained relatively constant during the second half of the 1980s. It declined slightly from 23.6 per cent in 1985/86 to 21.6 per cent in 1989/90. But also concealed within this relative stability are a number of branch-specific variations. The wood and furniture, and paper and printing sectors, were well above this average, while the beverages sector fell well below the average and was largely responsible for the slight overall decline.

Table II.9. Share of manufacturing value added in gross output, 1985/86-1989/90

Industrial group	1985/86	1986/87	1987/88	1988/89	1989/90
Food	23.2	19.3	19.0	21.2	22.9
Beverage	19.6	18.0	15.6	11.9	10.4
Tobacco	19.3	26.5	19.1	20.5	22.4
Textiles	25.2	29.2	25.4	27.4	26.0
Leather and footwear	13.5	19.9	21.3	20.2	19.7
Wood and furniture	39.8	34.3	38.2	39.9	41.4
Paper and printing	39.4	39.2	32.9	33.8	31.1
Chemical	32.9	32.1	29.0	25.4	25.0
Non-metal	22.8	19.6	28.1	25.7	28.7
Metal	19.4	19.8	24.5	21.0	16.7
All manufacturing	23.6	23.8	22.2	21.7	21.6

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1989/90 G.C.)* (Addis Ababa: Central Statistical Authority, April 1993), pp. 107. (Figures are only for those enterprises with at least ten employees.)

Labour productivity

As is evident from the data presented in Table II.10, labour productivity (measured in terms of the value added per person employed) varies greatly across industries. Between 1985/86 and 1989/90, the figures for the different industrial groups varied from approximately one-half the average for all manufacturing industries in the case of textiles, to over seven times the average in the case of tobacco. There were, as well, significant year-to-year fluctuations, with the beverages industry showing a constant decline, while the food industry experienced a gain over the period. Other subsectors had more mixed fortunes. Overall, labour productivity declined by just under four per cent in the second half of the 1980s.

Table II.10. Relative indices of value added per worker, by industrial group, 1985/86-1989/90

Industrial group	1985/86	1986/87	1987/88	1988/89	1989/90
Food	121.14	90.43	96.92	136.62	150.42
Beverage	151.83	133.61	135.37	107.12	88.29
Tobacco	473.34	780.29	564.42	593.52	721.55
Textiles	50.93	60.73	55.054	51.93	54.63
Leather and footwear	59.04	96.40	133.72	133.03	111.17
Wood and furniture	103.28	76.22	86.859	65.53	72.80
Paper and printing	158.01	143.63	110.50	120.37	107.73
Chemical	198.26	194.81	182.68	143.91	149.92
Non-metal	69.10	55.20	91.82	99.13	97.50
Metal	220.56	212.83	258.31	188.44	114.46
All manufacturing	100.00	100.00	100.00	100.00	100.00

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C.(1989/90 G.C.)* (Addis Ababa: Central Statistical Authority, April 1993), p. 108. (Figures are only for those enterprises with at least ten employees.)

The ratio of wages and salaries to value added is another indicator of labour productivity. Table II.11 shows that when using this measure as well, tobacco is the most productive subsector and textiles is the least productive subsector. These results are, of course, not particularly surprising, for the textiles industry is labour-intensive, while industries such as tobacco and chemicals have a high natural resource input and/or are highly capital-intensive.

Table II.11. Relative indices of the ratio of wages and salaries to value added by industrial group, 1985/86-1989/90

Industrial group	1985/86	1986/87	1987/88	1988/89	1989/90
Food	78.11	101.65	98.50	72.46	63.71
Beverage	71.89	78.30	83.97	108.70	122.09
Tobacco	11.29	15.57	18.38	17.39	19.33
Textiles	173.04	146.46	157.05	165.84	162.92
Leather and footwear	150.23	103.77	74.79	85.51	91.32
Wood and furniture	112.21	142.22	121.15	144.10	133.33
Paper and printing	72.35	82.78	108.97	96.89	106.31
Chemical	75.58	72.17	79.27	91.51	82.45
Non-metal	150.46	169.58	86.54	77.85	82.45
Metal	85.71	81.37	70.73	86.96	144.38
All manufacturing	100.00	100.00	100.00	100.00	100.00

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1989/90 G.C.)* (Addis Ababa: Central Statistical Authority, April 1993), p. 109. (Figures are only for those enterprises with at least ten employees.)

Profitability

Given that most of the manufacturing activity in Ethiopia has been under public control since 1975, it is difficult to discuss profitability in any meaningful way. Indeed, the problem is made even more difficult by the policy in place before the transitional government came to power in 1991 which prevented public enterprises from retaining more than five per cent of net income.

Nevertheless, some observations can be made. In the mid-1980s, the large public enterprises were registering increases in their levels of profits primarily a result of the lower book value of their assets, which resulted in an overall lower cost of production. In subsequent years, however, financial performance deteriorated, with the downward trend being primarily caused by declining labour productivity and policies that discouraged efficiency. As a result, the industrial sector public enterprises' contribution to budgetary receipts of residual surplus fell from Br84.8 million in 1987/88 to Br37.0 million in 1991/92 in current prices. In real figures, the decline is even more dramatic. Figures showing the ratio of gross profits to manufacturing value added for different industrial groups are presented in Table II.12.

Table II.12. Ratio of gross profit to manufacturing value added by industrial group, 1985/86-1989/90

Industry group	1985/86	1986/87	1987/88	1988/89	1989/90
Food	65.51	56.99	53.68	65.09	67.69
Beverage	68.37	67.22	60.90	47.90	38.46
Tobacco	94.30	93.58	91.10	91.71	90.18
Textiles	24.60	38.01	26.77	20.44	17.69
Leather and footwear	34.81	56.28	65.73	58.91	53.81
Wood and furniture	51.26	39.65	43.46	31.32	32.37
Paper and printing	68.53	65.05	49.24	53.25	46.30
Chemical	67.17	67.60	63.10	55.91	58.40
Non-metal	11.84	28.06	59.43	62.65	58.19
Metal	62.89	65.66	66.94	58.10	26.95
All manufacturing	56.78	57.56	53.60	51.61	49.07

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1989/90 G.C.)* (Addis Ababa: Central Statistical Authority, April 1993), author's calculations. (Figures are only for those enterprises with at least ten employees.)

D. INSTITUTIONAL FRAMEWORK FOR INDUSTRIAL DEVELOPMENT

Because the vast majority of large-scale manufacturing activity was undertaken by the public sector during the Dergue period, government departments played a crucial role in industrial development at this time. Handicraft and small-scale industrial development, meanwhile, was to be the responsibility of the Handicraft and Small-Scale Industries Development Agency (HASIDA). This agency, established by the government in 1977, was designed to organize craftsman and artisans into producers' and service cooperatives of their own. Although HASIDA's work was not restricted to any specific areas of the country, in practice it achieved more in the urban centres than the rural areas.

With the liberalization of the economy during the early 1990s, new institutional structures to promote private sector activity have emerged. Foremost among these is the Ethiopian Private Industries Association (EPIA). Founded in 1991, the EPIA is designed to promote an enabling environment for the growth and development of private industries. To achieve this end, the EPIA has been organizing a number of workshops around the country, as well as establishing committees that are intended to undertake the preparatory work for the formation of associations. It has been

widely agreed that the EPIA has made great strides in reducing the psychological barriers created by the former command economy.

E. OWNERSHIP PATTERNS

As discussed above, the majority of Ethiopian manufacturing was controlled by foreigners before 1974. A range of United States, European, Israeli, Indian, Japanese and other foreign companies owned enterprises in the country. However, also as discussed above, most of these operations were taken over by the Dergue regime. More specifically, in February 1975, 72 of the largest manufacturing and commercial enterprises were nationalized, and the government assumed a majority interest in another 29 enterprises. It subsequently bought out the private interests in all but four of this latter group. The result meant that, during the 1980s, publicly-owned enterprises dominated the manufacturing sector in Ethiopia. In 1985/86 for example, as noted in Section A of this chapter, they accounted for over 96 per cent of the gross production value of medium- and large-scale enterprises, 95 per cent of the value added, 94 per cent of the employment and 98 per cent of the fixed assets. Table II.13 shows how the public sector dominated virtually all those industry groups in 1989/90 among those enterprises with at least 10 employees.

Table II.13. Ownership by major industrial group, 1989/90
(Percentage of each industry's value of production)

Industry group	Public	Percentage	Private	Percentage
Food	630,195	95.80	27,641	4.20
Beverage	425,549	97.99	8,730	2.01
Tobacco	182,037	100.00	-	-
Textile	446,266	98.75	5,659	1.25
Leather and footwear	226,821	93.58	15,549	6.42
Wood and furniture	37,973	77.88	10,786	22.12
Paper	37,173	97.35	1,013	2.65
Printing	58,167	92.15	4,953	7.85
Chemical	143,148	96.00	5,960	4.00
Non-metallic mineral products	69,913	96.16	2,793	3.84
Metal and electrical	140,826	96.60	4,950	3.40
Total	**2,398,068**	**96.46**	**88,034**	**3.54**

Source: *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1989/90 G.C.)* (Addis Ababa: Central Statistical Authority, April 1993), p. 46-47. (Figures for enterprises with more than 10 employees.)

A shift away from the dominance of public ownership is a central plank to the new government's economic policy. There is a commitment to ensure that the state's role is eventually limited to a selected number of activities such as the production of strategic raw materials. To achieve this end, there have been initial moves in the restructuring of public enterprises with a view to giving greater autonomy to management. In addition, a new privatization policy is currently under development which the government plans to launch in the near future. The government has also announced (in early 1995) its intention to pay compensation or return property confiscated by the state during the 17-year period of Dergue rule.

The new government has not made a complete about-face in terms of how public ownership is valued, however. Under the country's new constitution, for example, urban and rural land is owned by the state, and only the development on the land can be privately owned.

F. INVESTMENT PATTERNS

Given the dominance of public ownership in the country since 1974, virtually all investment in the country since then has been made by the government. This investment has been financed through various means over the years. For example, between 1980/81 and 1989/90, foreign loans comprised the largest single contributor to the total amount of capital invested in the country at 44 per cent. The second-most important financing element was government equity, which comprised 35 per cent, followed by domestic bank loans at 19 per cent, and finally foreign grants, which made up only two per cent of total capital investment.

During the first two years of the 1990s, the rankings changed somewhat. Given the insecurity in the country at this time, it is not particularly surprising to find that foreign loans fell off during this period. In 1992/93, the shares were as follows: government equity (50.6 per cent), foreign loans (20.1 per cent), domestic bank loans (17.9 per cent), foreign grants (10.2 per cent), and a small amount labelled 'own funds' (1.3 per cent). (See Table II.14.)

Table II.14. Public investment in industry, by source of finance, 1988/89-1992/93
(Thousand birr)

	1988/89	1989/90	1990/91	1991/92	1992/93
Government	49,317	69,448	105,510	78,953	108,064
Foreign loans	110,969	227,543	115,820	61,135	42,901
Foreign grants	3,441	9,759	4,863	2,518	21,747
Domestic bank loans	71,193	64,029	60,725	28,601	38,216
Own funds	18,189	54,299	47,449	32,662	2,796
Total	**253,109**	**425,078**	**334,367**	**203,869**	**213,724**

Source: *Facts about Public Manufacturing Enterprises, Trade & Tourism* (Addis Ababa: Industry and Trade Department, March 1995), p. 65.

During recent years, the food industry has been the main beneficiary of investment. Textiles, beverages, chemicals and non-metallic industries, meanwhile, have also received significant amounts of new investment. Table II.15 lists the extent to which investment was distributed among different public sectors. It is clear that new investment projects absorbed the lion's share of available resources, almost two-thirds between 1988/89 and 1992/93.

During the Dergue period, private investment was discouraged by various means such as ceilings on permissible fixed assets, licensing requirements, high rates of personal taxation, employment protection legislation and discrimination in credit allocation. Attitudes changed modestly during the latter part of the 1980s and 1990, and in 1989 a package of investment incentives was launched. The incentives included a tax holiday based on the scale and type of investment, exemption from customs duty on capital goods destined for investment, important concessions on imports in general, a liberalized policy on remittances derived from profits, dividends and from the sale of companies, and favourable terms for leasing land.

In 1990, initiatives continued with the issuance of Proclamation No. 83/1 on 5 May which was designed to provide further investment incentives and hoped to encourage domestic investors as well as foreign capital.

As part of the post-1991 liberalization and internationalization of the Ethiopian economy, the government has been encouraging much greater private investment. This was initially promulgated in the transitional government's Proclamation Number 23. This act opened all but large-scale

energy projects, transport and financial services to foreign investors. Subject to a minimum investment of $500,000, investors were to be permitted up to 100 per cent foreign equity holdings. Further incentives included tax breaks of up to three years for new investment and reinvested profits, as well as the tax-free importation of up to 15 per cent of the productive capital for any new projects.

Table II.15. Public investment in industry, by industrial group, 1988/89-1992/93, selected years
(Thousand birr)

Industry group	1988/89	Percentage share	1990/91	Percentage share	1992/93	Percentage share
Food	2,870	1.13	129,061	38.60	105,701	49.46
Beverages	32,824	12.97	22,021	6.59	32,299	15.11
Tobacco	459	0.18	1,080	0.32	205	0.10
Textiles	100,928	39.88	71,964	21.52	5,940	2.78
Leather and shoes	8,706	3.44	12,510	3.74	2,042	0.96
Wood	3,018	1.19	1,384	0.41	-	-
Non-metallic	53,703	21.22	41,391	12.38	24,123	11.29
Printing	5,054	2.00	2,012	0.60	1,277	0.60
Chemical	12,082	4.77	39,376	11.78	37,403	17.50
Metals	33,465	13.22	13,568	4.06	4,734	2.22
Total	**253,109**	**100.00**	**334,367**	**100.00**	**213,724**	**100.00**

Source: *Facts about Public Manufacturing Enterprises, Trade & Tourism* (Addis Ababa: Industry and Trade Department, March 1995), p. 64.

More recently, the government has stated that it will provide all the necessary assistance for domestic and foreign private investors who wish to undertake ventures in modern commercial farming. Incentives have been put in place such as the making available of suitable land, providing access to domestic credit, tax benefits and providing the necessary infrastructure.

To coordinate new investments, both domestic and foreign, a new 'Investment Office of Ethiopia' was established in July 1992. Inquiries for investment certificates have been quite brisk since then, though the number of implemented projects have thus far been quite few in number (particularly when compared to the volume of requests made). Still, the Investment Office has claimed that it has issued 1,016 private investment licences to projects worth Br8.6 million by mid-1994. However, only 15 per cent of these were actually under way at that time.

G. INDUSTRIAL LOCATION

Ethiopia's manufacturing industry is concentrated around Addis Ababa (the capital) and Dire Dawa (in the east of the country). Indeed, the Addis Ababa and the Shoa Region, along with Dire Dawa and the Hararghe Region, account for 91.7 per cent of all industrial establishments, 89.5 per cent of industrial employment and 93.0 per cent of the GDP. Wello, Gojam, Sidamo and Arsi regions account for only 3.2 and one per cent of public enterprises respectively. This concentration is not particularly surprising given that this is where the greatest concentration of infrastructure (transportation, communications and utilities), skilled labour and markets are to be found. In addition, there have traditionally been no incentives for enterprises to be located in different regions. The promotion of balanced regional development was not a high priority of the Dergue regime.

The new government, however, is committed to fostering a more balanced geographical distribution of industrial development. Entrepreneurs are already beginning to recognize the potential advantages associated with developing small-scale industries, which will be able to supply discrete, hitherto un-served, regional markets. Such enterprises would be able to take advantage of the natural protection afforded by Ethiopia's relatively high costs of transportation.

H. ENVIRONMENTAL ISSUES

Although the level of manufacturing activity is such that pollution, the more 'traditional' environmental concern, is not yet a major problem for Ethiopia. However, the manufacturing sector does not escape the consequences of a deteriorated environment. Because so many of the inputs to Ethiopian manufacturing are derived from the land (crops for the food, beverage, tobacco and textiles industries, along with livestock for the leather industry), the country must use its natural resources sustainable if it is to increase its manufacturing base. The recent crises have revealed this point most vividly. Indeed, it is crucial to recognize that the degradation is neither inevitable nor necessarily irreversible. Institutional development (particularly at the local level), technical assistance and supplementary food during critical periods would all help to alleviate the environmental crises.

Given the experiences of environmental crises in Ethiopia, along with the increased attention now being paid to environmental issues by both the government and the international community, it is certainly the case that pressures for the adoption of environmentally-friendly processes in the country's industry are bound to increase. This is no bad thing: it will ensure that Ethiopia's industrial development takes due regard of the country's natural resource base, and thereby augments its own sustainability.

I. TRADE IN MANUFACTURES

Imports

As an essentially resource-based economy, Ethiopia has long been dependent on imports to satisfy its demand for manufactures. Between 1975 and 1993, manufactures made up over 75 per cent of all imports in every year except 1991 (see Table II.16). In 1993, the latest year for which data are available, the figure stood at 85 per cent. The other characteristic to note is that there is no discernible trend in the data over this period.

The composition of manufactured imports has remained relatively consistent. Despite Ethiopia's desire to develop a self-sustaining industrial base, the country has continued to be dependent upon foreign sources for most of its machinery and equipment, and these elements have constituted more than half of the country's manufacturing imports during eight of the 13 years between 1981 and 1993. In 1993, for example, they accounted for 56.5 per cent of the total value of manufacturing imports. Second and third in importance have consistently been the chemical products and processed foods, usually contributing about 20 per cent and ten per cent respectively to total imports. The only exceptions to this are 1985 and 1986, when the failure of domestic food production necessitated vast increases in the quantity of imported processed food. Table II.17 provides a more detailed breakdown of the composition of manufactured imports by major product groups.

Table II.16. Share of manufactures in total imports, 1975-1993
(Percentage)

Year	All manufactures	Capital goods	Processed foods
1975	89.04	26.20	6.11
1976	87.47	32.34	7.27
1977	85.28	25.39	8.06
1978	91.25	32.88	7.31
1979	83.01	31.94	6.67
1980	80.73	24.88	7.25
1981	77.12	32.93	8.85
1982	77.08	28.14	6.72
1983	76.33	30.60	7.31
1984	80.83	37.12	8.07
1985	78.37	26.94	22.69
1986	86.83	34.21	18.04
1987	88.26	44.30	7.76
1988	90.28	42.19	10.46
1989	97.88	32.02	9.37
1990	84.19	30.90	10.19
1991	47.29	17.18	4.49
1992	80.01	38.18	9.40
1993	85.03	38.44	6.90

Source: UNIDO, Industrial Development Reviews Information Database.

Fig. II.D. Composition of manufactured imports, 1993
(Percentage)

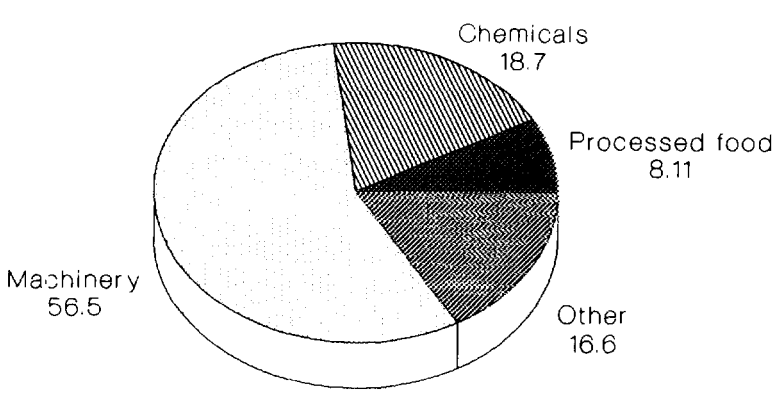


Table II.17. Composition of manufactured imports by major product category, 1975-1993, selected years
(Percentage share)

Product group	1975	1980	1985	1990	1991	1992	1993
Processed foods	6.86	8.98	28.96	12.10	9.49	11.74	8.11
Textiles and clothing	10.51	6.52	4.54	4.09	4.68	4.67	3.92
Wood products, furniture	0.29	0.21	0.28	0.81	0.98	1.02	1.00
Paper, printing, publishing	3.27	3.91	2.66	3.82	2.41	1.88	1.92
Chemical industry	33.1	32.44	15.44	18.16	24.42	19.68	18.70
Non-metallic products	1.23	2.20	0.75	1.20	3.16	1.34	1.57
Basic metals and iron and steel	5.50	4.64	4.19	5.15	5.19	3.08	7.71
Machinery and equipment	38.40	40.10	42.80	54.19	48.99	56.17	56.50
Miscellaneous products	0.87	1.00	0.38	0.49	0.69	0.41	0.55

Source: UNIDO, Industrial Development Reviews Information Database.

Exports

It might surprise some to see the extent to which manufactures dominate Ethiopia's exports, accounting for almost 85 per cent of total exports in 1993 (see Table II.18). A closer look, however, reveals that this figure includes processed foods which in turn includes coffee. Processed foods regularly accounted for more than 90 per cent of all manufactured exports during the 1970s and more than 80 per cent during the 1980s. Table II.19 provides full details.

Table II.18. Share of manufactures in total exports, 1975-1993, selected years
(Percentage)

Year	All manufactures	Capital goods	Processed foods
1975	66.1	0.63	59.54
1976	79.62	0.32	74.54
1977	88.6	0.38	84.51
1978	87.55	0.68	80.37
1979	81.76	1.6	73.81
1980	82.27	1.74	65.36
1981	73.31	2.58	61.18
1982	79.94	6.57	62.94
1983	81.2	3.46	67.64
1984	85.84	3.88	70.48
1985	81.76	3.88	63.55
1986	86.84	4.14	76.21
1987	75.86	3.47	59.61
1988	85.24	1.89	68.31
1989	91.74	1.17	738.48
1990	87.43	5.08	59.12
1991	91.39	7.82	64.93
1992	72.22	4.02	49.43
1993	84.95	12.8	56.34

Source: UNIDO, Industrial Development Reviews Information Database.

Although most of the manufacturing in Ethiopia has traditionally been designed to cater for the home market, there have been a number of goods in addition to coffee that have been exported, including sugar, semi-processed hides, skins and other leather work, oilseed products and some petroleum products. Moreover, Table II.19 shows that the non-food sectors have grown during recent years, so that they now occupy a greater share of total manufactured exports. The rise of textiles and clothing, along with machinery and clothing, are particularly noteworthy. Nevertheless, it is still the case that, although manufactured exports appear to have registered impressive growth in the past few years, they remain dominated by the agricultural-based leather and leather products, food and textiles.

Fig. II.E. Composition of manufactured exports, 1993
(Percentage)

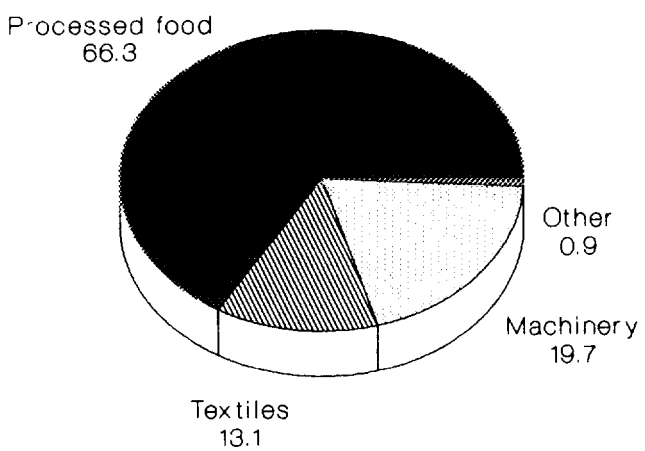


Table II.19. Composition of manufactured exports by major product category, 1975-1993, selected years
(Percentage share)

Product group	1975	1980	1985	1990	1991	1992	1993
Processed foods	90.08	79.45	77.72	67.62	71.05	68.44	66.32
Textiles and clothing	0.88	2.42	3.98	13.65	11.53	14.92	13.17
Wood products, furniture	0.75	0.25	0.05	0.02	0.01	0.06	0.05
Paper, printing, publishing	0.04	0.01	0.01	0.08	0.09	0.04	0.03
Chemical industry	6.55	15.48	13.19	7.78	2.55	2.37	0.56
Non-metallic products	0.27	0.01	0.01	0.004	0.10	0.01	0.01
Basic metals and iror and steel	0.03	0.02	0.001	0.03	0.004	0.002	0.04
Machinery and equipment	1.27	2.35	5.02	10.70	14.63	14.11	19.79
Miscellaneous products	0.14	0.03	0.01	0.02	0.04	0.06	0.04

Source: UNIDO, Industrial Development Reviews Information Database.

J. INTERNATIONAL COOPERATION FOR INDUSTRIAL DEVELOPMENT

As can be seen in Table II.20 which presents Ethiopia's receipts of official development assistance between 1984 and 1990, the most important bilateral donors have been Italy, the United States, Sweden and Germany. Significant multilateral donors include the European Community (through the various Lomé programmes), the International Development Association, the World Food Programme and the United Nations High Commission for Refugees. Much of the assistance Ethiopia has received over the years has been emergency relief. Many donor countries were hesitant to give to the Dergue regime, for aid donations were perceived as being tantamount to indirectly financing the ongoing civil war.

In addition to this assistance from western countries and western-dominated agencies, technical and educational assistance was provided by the USSR and other socialist countries, including East Germany, Bulgaria and Cuba during the period of Dergue rule. The quantity of assistance received during the 1970s and 1980s was low, however, when compared with other African countries. In 1991, it was only $19 for each Ethiopian. Only Algeria, Libya, Nigeria and Zaire received less in per capita terms.[14/]

Table II.20. Receipt of official development assistance, 1984-1990
(Millions birr)

	1984	1985	1986	1987	1988	1989	1990
Bilateral	195.3	434.0	405.9	320.4	569.4	396.9	512.0
of which							
Italy	45.9	83.0	152.9	128.9	233.3	149.3	173.7
United States	21.0	146.0	94.0	8.0	69.0	52.4	53.0
Sweden	17.9	24.6	35.2	35.1	53.2	32.3	48.9
Former Federal Republic of Germany	29.5	26.6	27.2	27.9	38.9	26.0	56.7
United Kingdom	9.4	36.4	14.1	14.0	34.2	20.1	35.6
Multilateral	177.5	292.0	244.4	327.4	417.1	370.2	395.1
of which:							
EC	57.9	103.3	85.7	96.0	153.4	57.3	54.0
IDA	42.3	41.1	150.3	85.1	76.0	70.0	73.0
WFP	27.8	47.1	30.3	31.1	40.1	66.0	88.5
UNDP	10.6	19.4	23.2	28.8	22.6	19.0	18.2
UNHCR	13.4	20.7	21.8	27.9	73.7	88.2	74.9
Total	**372.7**	**726.0**	**650.2**	**647.8**	**986.5**	**767.1**	**907.2**
of which:							
Grants	286.0	618.7	562.7	942.5	775.1	603.7	729.0

Source: Kinfe Abraham, *Ethiopia: From Bullets to the Ballot Box* (Lawrenceville, NJ, NJ: Red Sea Press, 1994), p. 257.

With the change in government and corresponding shifts in policy during the early 1990s, there is a brighter prospect for greater international cooperation. Indeed, a number of national governments and international agencies have already committed themselves to assisting with the transition to a market economy. The United Kingdom, for example, announced in July 1995 that it would give Ethiopia £9 million in financial assistance: £5 million for balance of payments support and £4 million in commercial debt relief. The United Kingdom Minister for Overseas Development also announced that Britain will give Ethiopia 600 tonnes of food aid. In the same month, the Clinton administration announced that it would do its utmost to ensure that the horn of Africa was not affected by the cost-cutting in foreign aid that was being executed by the United States Congress.

While the World Bank (in the guise of its International Development Association) has been at the forefront of the renewed activity on the multilateral front, the African Development Bank and the European Union have also been important players. Furthermore, United Nations agencies have been providing specialist assistance. With Ethiopia now firmly on the road towards economic liberalization, it is expected that, notwithstanding the growing pressures upon aid budgets worldwide, the country should continue to have the opportunity to benefit from international assistance and cooperation.

NOTES TO CHAPTER II

1/ Girma Kebbede, *The State and Development of Ethiopia,* Humanities Press, London, 1992, pp. 33-34.

2/ Befekadu Deguefe, "Profile of the Ethiopian Economy", in *Long-Term Perspective Study of Sub-Saharan Africa, Volume 1: Country Perspectives*, The World Bank, Washington D.C., 1990, p. 67.

3/ *Ibid.*, p. 70.

4/ Central Statistical Authority, *Ethiopian Statistical Abstract 1992,* Addis Ababa, p. 95.

5/ *Ibid.*

6/ Berhane Mewa, *The Industrial Development Policy and the Present Situation in Ethiopia,* paper presented to the Regional Workshop on Industrial Policies and Strategies, Seoul, Republic of Korea, 1995.

7/ Incompatibility between different sets of statistics makes it difficult to estimate the number of people who have been, let alone continue to be, employed in private manufacturing. The Central Statistical Office has produced figures for those private enterprises with 10 or more employees, while the Handicraft and Small-Scale Industries Development Agency (HASIDA) counted those in enterprise with assets, excluding land, of less than Br200,000. Consequently, there could be both double-counting (enterprises with many employees but small assets) or neglect (enterprises with few employees but large assets). Nevertheless, a HASIDA survey from 1979/80 estimated 16,314 people engaged in small-scale private manufacturing, while a study by Esthetu Chole reported that, as of 1986 there were only 842 cooperatives in the handicrafts and small-scale industries subsector, with a total membership of about 39,000 workers. Eshetu Chole, Reflections on Underdevelopment: Problems and Prospects', in Abebe Zegeye and Siegfried Pausewang (eds), *Ethiopia in Change: Peasantry, Nationalism and Democracy,* London, British Academic Press, 1994, p. 115.

8/ Ghelawdewos Araia, *Ethiopia: The Political Economy of Transition,* New York, 1995, pp. 48-49.

9/ Wubneh Malatu, "Manufacturing Productivity in Ethiopia, 1960-88", in Berhanu Abegaz, *Essays on Ethiopian Economic Development,* Aldershot, 1994, p. 257.

10/ Department of Industry and Trade, *Facts About Public Manufacturing Enterprises, Trade and Tourism,* Addis Ababa, March 1995, p. 9.

11/ Figures are for 1988. United Nations Development Programme, *Human Development Report 1993,* 1993, p. 163 and 1995.

12/ Cited in Ben Parker, *Ethiopia: Breaking New Ground,* Oxford, 1995, p. 45.

13/ Griffin, Keith (ed), *The Economy of Ethiopia*, London, 1992, p. 233.

14/ *World Resources 1994-95,* Oxford University Press for the World Resources Institute, Oxford, 1994, p. 258.

III. INDUSTRIAL BRANCH PROFILES

A. FOOD PROCESSING AND RELATED AGRO-INDUSTRIES

Background

About one-eighth of the Ethiopian land-area can be used for crop production. Another three-eighths is permanent pasture.[1/] Most of the agricultural activity takes place on the country's highlands and its central plateau, where farmers grow a range of crops, including teff, barley, wheat, maize, beans, peas and lentils. At intermediate altitudes, sorghum and millet are farmed. In the southern highlands, meanwhile, the 'false banana' tree (enset) is the main staple crop, with tubers, vegetables and grains as secondary crops. Livestock husbandry, common as a subsidiary activity in all regions, is virtually the only source of food production in the nomadic and semi-nomadic pastoral lowland areas.

The vast majority of agricultural activity is undertaken by peasants on small plots (1 or 2 hectares in size). This is a legacy of major land-reform schemes that took place after 1975; the involvement of the state in primary agriculture is relatively small. In Ethiopia, there are two harvests a year: the smaller one in the highlands after the small rains in mid-year (this accounts for about one-tenth of the annual harvest) and the main harvest in November-December. Table III.1 presents the production figures for some of the country's major agricultural products, while the subsequent sections consider a range of agricultural crops individually.

Table III.1. Annual harvest of selected crops, 1981-1993, selected years
(Thousand tonnes)

Crop	1981	1983	1984	1985	1987	1989	1991	1993
Cereals	5,799	6,360	4,115	5,320	5,727	6,355	6,305	6,617
Pulses	978	1,053	804	944	616	686	824	802
Vegetables and melons	496	507	513	533	577	588	594	574
Fruits excluding melons	203	209	210	212	218	226	231	230
Sesame seeds	35	36	36	36	37	35	35	32

Source: *FAO Yearbook, Production*, Rome, Food and Agricultural Organization, Volume 47, 1994. Figures for 1991 and 1993 are estimates; figures for 1993 exclude Eritrea.

Cereals

Maize: In terms of both the area under cultivation and the quantity produced, maize grew dramatically during the first half of the 1980s. This expansion took place mainly on state farms, though some peasants also substituted maize for sorghum. The trend continued - though somewhat subdued - during the latter part of the 1980s and the first half of the 1990s. Consequently, maize now provides almost 30 per cent of the country's cereals, having surpassed

both teff and sorghum during the past ten years. In 1991/92, it was estimated that 986,500 hectares were under cultivation, an area which produced 15,106.2 thousand quarts.[2/]

Teff: Teff is a fine-grained cereal which is used in the cooking of injera, the staple food of most Ethiopians. Grown predominantly in the highlands, it is a relatively low-yielding crop which requires great attention. (In order to grow teff, for example, the land must be ploughed about eight or nine times. This would, in any case, make the crop a demanding one; it is even more so given that as many as one-third of Ethiopia's subsistence farmers do not own traction animals.) Nevertheless, the amount of land devoted to the production of teff has expanded during the past few years (primarily at the expense of other cereals - cereals which often offer greater returns to land, if not to labour as well). About 1.37 million hectares were under cultivation in 1991/92, and 11,845.5 thousand quarts were produced.[3/]

Barley: Barley is another major cereal grown in the Ethiopian highlands. In 1991/92, 736,000 hectares were under cultivation, and production amounted to 7,851.4 thousand quarts. This represented about 15.8 per cent of Ethiopia's total production of cereals.[4/]

Wheat: The amount of land devoted to wheat increased considerably during the 1980s. As a result, about 560,000 hectares were under cultivation in 1991/92. This expansion was, in part, in response to the growing demand for bread (which, in turn, had resulted from greater urbanization). Wheat production in 1991/92 was 7,556.7 thousand quarts.[5/]

Sorghum: Sorghum has traditionally been the most preferred crop in the Ethiopian lowlands. Approximately 460,000 hectares were devoted to this cereal in 1991/92, and the output in the same year was estimated to be 5,647.3 thousand quarts (representing about 11.3 per cent of the country's total cereal production).[6/]

Other: Millet is also produced in the lowlands (where, in terms of quantity produced, it is second only to sorghum) - in 1991/92, 1,283.4 thousand quarts were produced on 152.1 hectares. Small amounts of oats (approximately 300,000 quarts annually) are also produced.[7/]

Pulses

The production of pulses peaked in 1979/80 at 933,650 tonnes. Since that time, there has been a decline in production levels, with some reduction in the land-area under cultivation as well. The UN Food and Agriculture Organization has estimated that, in 1993, 802,000 tonnes of pulses were produced from 891,000 hectares.[8/] The relative constancy of the production figures between 1979/80 and 1993 masks some wider fluctuations within individual crops. More specifically, there was a significant increase in the production of haricot beans, but an equally significant decrease in the production of broad beans. (Nevertheless, Ethiopia still produced about 6 per cent of the world total of the latter.) Other pulses of significance are peas and chickpeas.

In the past, pulses have formed a significant export commodity for Ethiopia - over the period 1971/72 to 1973/74, for example, 109,900 tonnes were exported annually.[9/] Though this subsequently fell, it still amounted to 23,354 tonnes in 1989/90 - a figure which represents almost 5 per cent of the value of all Ethiopian exports in that year (and almost 11 per cent of all non-coffee exports). Reductions continued, however, and by 1992/93 the share had fallen ten-fold to just over one-half of one per cent.[10/] During the past decade, haricot beans have come to dominate pulse exports (always constituting at least half of the weight of total pulse exports, and rising to a 97.7 per cent share in 1992/93, with an absolute figure of an extremely modest 1,493 tonnes).[11/]

Oilseeds

The UN Food and Agricultural Organization reports that Ethiopia's estimated production of oil seeds in 1993 were as follows: rapeseed (82,000 tonnes on 151,000 hectares), sesame seeds (32,000 tonnes on 62,000 hectares), linseed (33,000 tonnes on 67,000 hectares), safflower seeds (36,000 tonnes on 70,000 hectares) and seed cotton (46,000 tonnes on 41,000 hectares).[12/] What was

an important export sector in the early 1970s has since virtually dried up: in 1983/84, exports were still above 33,000 tonnes, but had fallen to under 1,000 tonnes in both 1991/92 and 1992/93.[13/] The fall has been particularly dramatic in the case of sesame seeds (which are primarily grown in Humera). In 1974, exports of this commodity amounted to 84,600 tonnes, netting $38 million in foreign exchange (nearly 15 per cent of total foreign exchange earnings).[14/] Since 1984/85, however, sesame seed exports have been under 2,500 tonnes a year, falling below 400 tonnes in both 1991/92 and the following year.[15/] Nevertheless, given that the government has lifted restrictions upon the use of private labour, there is optimism that the production of sesame seeds can start to increase. (It is a labour-intensive activity which requires a large seasonal work-force.)

Fruits and vegetables

A wide range of fruits and vegetables are cultivated by peasant farmers on small horticultural plots, both for personal consumption and for market. Production for the latter, however, has traditionally been dominated by the state-owned Horticultural Corporation. In 1993, output of vegetables and melons was estimated to be 574,000 tonnes, and fruits (excluding melons) 230,000 tonnes. The largest single commodities, in terms of weight, were estimated to be bananas, tomatoes, cabbages and onions.[16/]

Modest quantities of fruits and vegetables are usually exported (contributing between 0.5 and 2.0 per cent to the value of total exports). In 1992/93, for example, exports amounted to just over 6,000 tonnes (valued at Br2.7 million).[17/]

Sugar

There are approximately 14,000 hectares under cultivation for sugar cane in any given year, with the production figure for 1993 being 1.45 million tonnes.[18/] Most of this came from two large facilities: one, at Wonji in Shoa, which has a potential of about 10,300 hectares; while the other, at Methara, has about 9,000 hectares which could be potentially under cane.

Coffee

Coffee is the country's most important export. The commodity has deep roots in the country, with Ethiopians claiming that coffee in fact originated in their country. (The Yemenis make the same claim.)[19/] What is indisputable is the value of the crop to the national economy. Between 1980/81 and 1992/93, it generated 63 per cent of total export revenues (see Figure III.C), and taxes on it are the largest single source of government revenue.[20/]

Although coffee is grown in many parts of the country, the production which supplies the export market is concentrated in four areas in the south and south-west of the country - namely, Sidamo, Kefa and Illubabor, Wollega and Hararge.[21/] Indeed, the variety produced in this last location is considered to among the best in the world - consequently, premium prices can often be obtained. In all areas of the country, it is the peasant farmers who produce most of the coffee. The central grading and marketing centres, meanwhile, are located in Addis Ababa and Dire Dawa.[22/]

Most of the Ethiopian production is processed by the sun-drying method and then hulled. Hulling capacity, however, is limited by old plant. In 1985/86, for example, only 13,000 tonnes (less than 10 per cent of that year's crop) was processed as washed coffee (a commodity which sells at a premium). Meanwhile, most domestically consumed coffee is roasted and ground at home, while exported coffee undergoes no further processing.[23/]

The export figures for coffee - in terms of both quantity and value - have fluctuated considerably during the past 30 years. The variations in the quantity of coffee exported are explained by a number of factors. Most importantly, coffee berry disease (CBD) has been a severe problem.

During the 1980s, CBD affected up to 30 per cent of the country's trees. In response, a programme of replanting with disease-resistant strains was instigated. This has served to remove

a proportion of the diseased trees from production each year. Given, however, that it takes five years after replanting for the new coffee tree to reach maturity, there is necessarily a lag-time associated with any such programme. Other physical problems which have served to inhibit production have included drought, rust, aging trees and the inadequate use of fertilizers.

Economic and social factors also impact production levels. When world prices are low, it may be in farmers' interest to switch to other cash crops - for example, qat. Additionally, in times of food shortages, other kinds of pressures may force farmers to substitute subsistence crops for their coffee trees. Either way, the land-area devoted to coffee falls, and the quantity available for export declines accordingly.[24/] (Additionally, when the prices paid by government were relatively low during the 1980s, a substantial illegal export market emerged, with farmers striving to profit more from their production.[25/])

For many years, Ethiopian exports of coffee were also regulated by international agreement. As a signatory of the International Coffee Agreement (ICA), Ethiopia was allocated quotas which accounted for the majority of its exports. Its share of the world coffee trade under quota agreements fell from about 2.5 per cent in the late 1960s to 2.2 per cent in the late 1970s. This decline was offset to some extent by a growth in exports to countries not covered by quota agreements - particularly the Middle East and Japan. Consequently, the proportion of exports to quota markets to total exports fell from about 90 per cent to just less than 80 per cent.[26/] With, however, the suspension of the ICA in July 1989, this agreement no longer presented a constraint.

Additionally, coffee is also an important domestic consumer good: it is drunk by almost all Ethiopians, with people brewing up three times a day in the areas where it is grown. This love for coffee among Ethiopians has a considerable impact upon export performance, for domestic demand sometimes consumes about half of the total output.

The corresponding value of coffee exports has also fluctuated - within the last 20 years, world coffee prices in 1977/78 were particularly high, while those during 1989/90 and 1991/92 were extremely low (indeed, because of the collapse of the ICA, they were at their lowest level in real terms since the 1920s). Preliminary indications, however, suggest that both export volumes and export values may be rising to historic highs.

Explaining this are a combination of good rains in Ethiopia in 1994 and the frost and drought that hit Brazil at the same time. Consequently, one report suggests that coffee exports could have reached $250 million in 1994, as compared with $100 million the previous year.[27/] Production, meanwhile, was also predicted to increase: officials forecasted that the country would export more than 120,000 tonnes of coffee during the 1994/95 crop year.[28/] More tangibly, it was reported that the country's Jimma zone had increased coffee production by 600 tonnes to 12,000 tonnes between September 1994 and April 1995.[29/] Farmers have been tempted back into coffee producing by many factors: not only the higher world prices, but also by the fact that the government has set a minimum producer price, thus allowing them to earn a higher return (and thereby reducing the incentive for smuggling).

The prospects for Ethiopian coffee are generally good. Yields are continuing to rise as management practices are improved and as applications of fertilizer are increased. The fate of the sector, however, is heavily determined by climatic factors (affecting not only the production of the crop itself, but also the production of other crops, and thereby determining whether they - in particular, cereals - will place demands upon those lands currently under coffee cultivation). World prices are, of course, the other main determinant of the health of the Ethiopian coffee industry.

Technical overview

The food processing, beverages and tobacco industries include meat and meat products, processed fruits and vegetables, edible oil, macaroni and spaghetti, bread and biscuits, sugar and candy, alcohol, soft drinks as well as cigarettes. The production capacities employed to manufacture these and other products are presented in Table III.2.

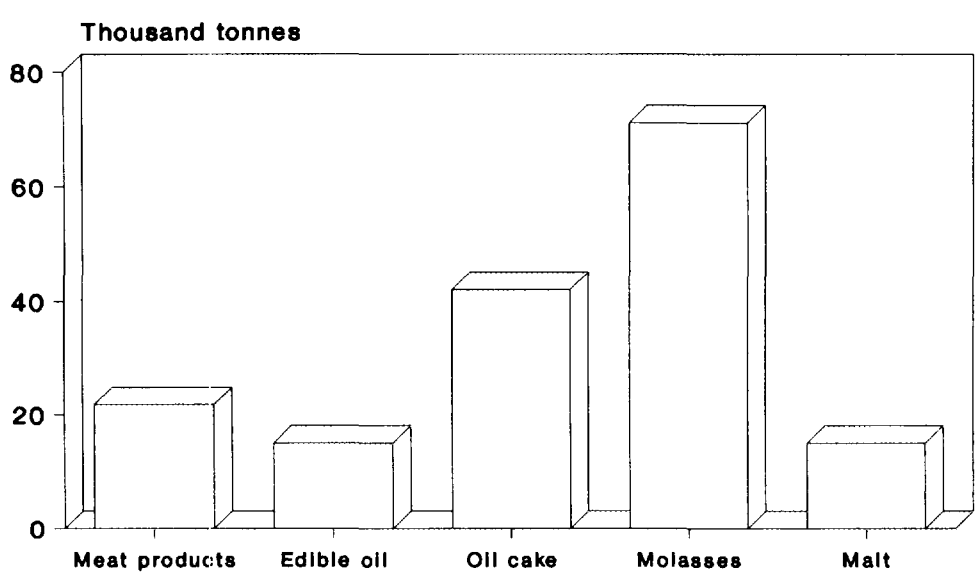
Table III.2. Production capacities of food processing, beverages and tobacco industries, 1992/93

Product	Unit of measure	Annual production capacities
1. Meat products	Tonnes	21,700
2. Processed fruits and vegetables	Tonnes	6,300
3. Milk	Hectolitres	210,000
4. Milk products	Tonnes	1,100
5. Edible oil	Tonnes	15,000
6. Oil cakes	Tonnes	42,000
7. Flour	Tonnes	263,400
8. "Fafa" products (Baby food)	Tonnes	20,400
9. Macaroni and spaghetti	Tonnes	25,000
10. Bread, galetta and biscuits	Tonnes	77,500
11. Sugar and candy	Tonnes	205,000
12. Molasses	Tonnes	71,000
13. Animal feed	Tonnes	43,000
14. Beer	Hectolitres	700,000
15. Wine	Hectolitres	140,000
16. Alcohol and liquors	Hectolitres	60,000
17. Lemonade (soft drinks)	Hectolitres	110,000
18. Mineral water	Hectolitres	341,000
19. Malt	Tonnes	15,000
20. Cigarettes	Thousand pieces	3,725,000

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

Although both public and private enterprises are engaged in producing the above products, most of the products are manufactured by state enterprises. Of the 20 major enterprises in these industrial branches, 13 are engaged in food processing. They include seven flour mills and flour based plants, two sugar estates, two meat processing plants, one fruit and vegetable processing plant and one milk processing plant.

Fig. III.A. Annual production capacity of selected food products, 1992/93



Of the six major enterprises engaged in the manufacturing of beverages, four are breweries, while the remaining two are a soft drink bottling company and a mineral water bottling plant. The tobacco manufacturing industrial enterprise is the only one of its kind in the country. Annual production capacity, and location of the major enterprises in the sector are given in Table III.2.

Most of the enterprises in the food processing industrial subsector, including those owned by the State, are engaged in producing flour and edible oil, and hence the kind of industrially processed local food products is quite limited. Moreover, the sugar enterprises are the only large- scale plants in the subsector; the majority are small-scale in size.

In the beverages industry, breweries are the dominant enterprises. As shown in Table III-3, there are four breweries with a total annual capacity of about 970,000 hectoliters. All of the major enterprises, including the breweries, are owned by the State. Private enterprises are mostly small scale oil mills, flour mills and bakeries.

Most of the food processing, beverages and tobacco industries are located in Addis Ababa and the nearby towns. However, state enterprises established during the past decade are found in places far from Addis Ababa such as Beddele in the south-west and Bahir Dar in the north.

Table III.3. Major enterprises in the food processing, beverages and tobacco industries, 1992/93

Name of enterprise		Location	Annual capacity
1.	Ada Flour & Pasta Factory	Debre Zeit Town	45,000 tonnes of wheat
2.	Kokeb Flour & Pasta Factory	Central Region, Addis Ababa	15,000 tonnes of oil seeds
3.	Awasa Flour Mill	Awasa Town, Southern Region	36,000 tonnes of wheat
4.	Bahr Dar Edible Oil Mill	Bahr Dar Town, Northern Region	15,000 tonnes of oil seeds
5.	Faffa Food Factory	Addis Ababa	
6.	Kaliti Food Products Factory	Addis Ababa	40,000 tonnes of wheat
7.	Debre Zeit Maize Mill	Debre Zeit Town, Central Region	36,000 tonnes of wheat
8.	Ethiopian Livestock & Meat Enterprise	Wendo Town, Southern Region	80,000 heads of cattle per day
9.	Sopral Combolcha Meat Factory	Combolcha Town, Northern Region	82,500 heads of cattle per day
10.	Ethiopian Fruit & Vegetable Marketing Enterprise	Merti Jejju Town, Central Region	40,000 tonnes of fruits
11.	Dairy Development Enterprise	Addis Ababa	50,000 litres of milk per day (processing)
12.	Metahara Sugar Factory	Metahara Town, Central Region	120,000 tonnes sugar
13.	Wonji/Shoa Sugar Factory	Near Nazareth Town, Central Region	80,000 tonnes sugar
14.	St. George Brewery	Addis Ababa	200,000 hectolitres
15.	Metta Brewery	Near Sabbata Town, Suburb of Addis Ababa	320,000 hectolitres
16.	Harar Brewery	Harar Town, Eastern Region	200,000 hectolitres
17.	Beddele Brewery	Beddele Town, South West Region	250,000 hectolitres
18.	Abbay-Mesk Soft Drinks Factory	Addis Ababa Addis Ababa	144 million bottles of 300 cc
19.	Ambo Mineral Water Factory	Ambo Town, Central Region	167 million bottles 650 cc
20.	Addis Ababa Cigarette Factory	Addis Ababa	2.5 billion cigarettes

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

The gross value of production of the industries was Br1,185 million in 1992/93 fiscal year. Compared to the total gross value of production of the manufacturing industry in the same year, the share of these industries was about 44 per cent.

The resource base

The food processing, beverages and tobacco industries are agro-based industries. Most of the major raw materials of these industries are locally available. However, owing to the underdevelopment of agriculture, especially commercial farming, which was monopolized by the State during the past two decades, there is a big shortage of some of the raw materials such as wheat. The quantity of major raw materials consumed by the food processing, beverages and tobacco industries during the 1992/93 fiscal year is shown in Table III.4.

Table III.4. Major raw materials consumed by food processing, beverages and tobacco industries, 1992/93

Major raw materials	Units of measure	Quantity consumed		
		Local	Import	Total
1. Cattle	Head	6,345	-	6,345
2. Meat	Tonnes	431	-	431
3. Pulses	Tonnes	2,239	-	2,239
4. Vegetables	Tonnes	8,893	-	8,893
5. Edible oil	Tonnes	871	-	871
6. Flour	Tonnes	18,115	411	18,526
7. Wheat	Tonnes	69,480	5,118	74,598
8. Maize	Tonnes	2,029	-	2,029
9. Milk (raw)	Hectolitres	21,792	-	21,792
10. Milk (powder)	Tonnes	52	62	114
11. Oil seeds	Tonnes	35,647	-	35,647
12. Sugar cane	Thousand tonnes	1,274	-	1,274
13. Sugar	Tonnes	1,808	-	1,808
14. Glucose	Tonnes	-	19	19
15. Alcohol	Hectolitres	1,174	-	1,174
16. Carbon dioxide	Tonnes	1,160	-	1,160
17. Essence	Tonnes	-	240	240
18. Grapes and raisins	Tonnes	50	78	128
19. Hops	Tonnes	-	155	155
20. Malt	Tonnes	5,821	3,959	9,780
21. Molasses	Tonnes	10,966	-	10,966
22. Barley	Tonnes	103,930	-	103,930
23. Tobacco and leaves	Tonnes	1,188	646	1,834

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93*, Addis Ababa, August 1994.

Recent trends

The gross value of production during the past five years (i.e. between 1988/89 to 1992/93) decreased from Br1,260 million in 1988/89 to Br1,185 million in 1992/93. This trend was mainly observed in the food processing industry, especially in the meat, fruit and vegetables processing and dairy products; the major causes being attributed to market and organizational problems.

The major export products in these industries are food products, meat (canned and frozen), oil cakes, sugar, molasses, and fruit and vegetables. Similarly, the value of exports of these industries decreased sharply from Br22 million in 1988/89 to about Br8 million in 1992/93.

A number of large-scale food processing projects are under construction by the State. The projects include the Addis-Modjo Edible Oil Complex, Hammaressa Oil Mill, Dire Dawa Food Complex and Finchaa Sugar Factory. With the exception of Finchaa Sugar Factory, which may

take three more years for completion, all the projects are near completion and may start production before the end of 1995.

The design capacities of these projects are larger than most of the existing plants. For instance, the capacity of Addis-Modjo Edible Oil Complex is about 300 tonnes of oil seeds per day. This is more than the combined capacity of the ten existing oil mills. The processing capacity of Finchaa Sugar Factory is 4000 tonnes of cane per day with a provision to expand the capacity to 6000 tonnes of cane per day. It is expected that when these projects are completed and start full scale operation, the gross value of production of the food, beverages and tobacco industries would increase very significantly.

Before October 1992, the state enterprises in the food, beverages and tobacco subsectors were managed under six legally organized corporations namely Ethiopian Meat and Livestock Development Corporation, Ethiopian Fruit and Vegetables Development Corporation, Ethiopian Food Corporation, Ethiopian Sugar Corporation, Ethiopian Beverages Corporations and National Tobacco and Matches Corporation. In August 1992, the Transitional Government of Ethiopia issued a proclamation dissolving the corporations and making the state enterprises under these corporations autonomous to be managed by management boards. The board of management of each enterprise consists of a total of six members, four of whom are appointed by the Government and the remaining two elected by the workers of the enterprises themselves. This new organizational arrangement has shown positive results in most of the enterprises.

Subsectoral analysis

Food manufacturing

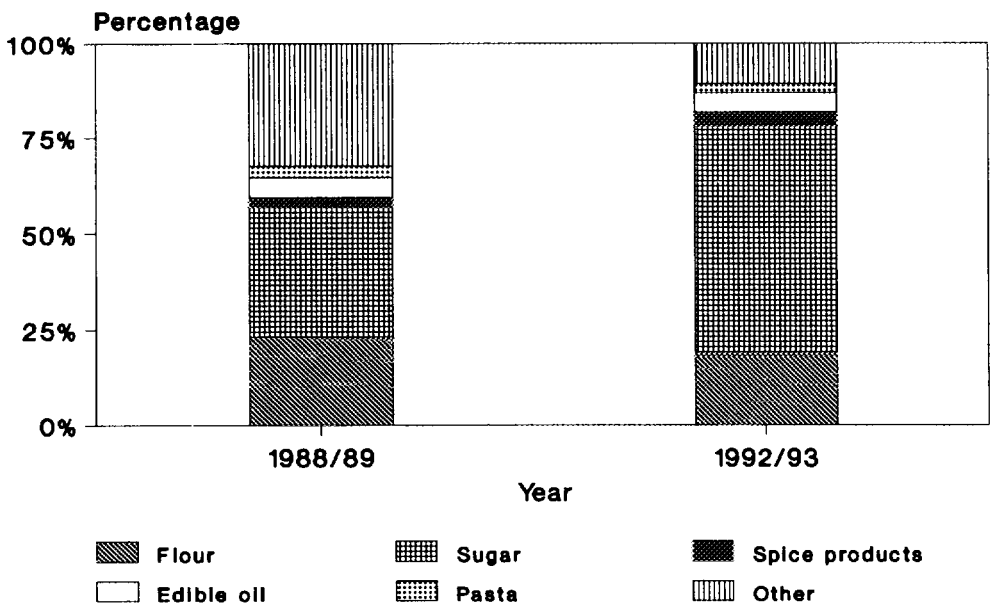
Food manufacturing as a group accounted for 16.8 per cent of the value of total production from public enterprises in 1992/93, as well as employing 19.4 per cent of all people working in manufacturing.[30/] (As with most branches of industry, food manufacturing is still dominated by the public sector - in 1989/90, the last year for which statistics are available, private sector establishments contributed only 4 per cent to the total value of production in the food manufacturing sector.[31/]) The 1992/93 contribution was well down from, for example, 1989/90, when food manufacturing contributed 28 per cent to the total value of production from public enterprises. Capacity has, accordingly, fallen from 100 per cent in 1988/89 (which represents the maximum production during the past 20 years) to 43.6 per cent in 1992/93.[32/] The government reports that in 1993/94, there were 30 publicly-owned establishments involved in food manufacturing - most of which were located in Obomiyaa and Region 14. Table III.5 shows the structure of food manufacturing.

Table III.5. Major products of food manufacturing, 1988/89-1992/93
(Percentage share of total production, by value)

	1988/89	1989/90	1990/91	1991/92	1992/93
Flour	22.97	25.76	22.82	17.88	18.47
Edible oil	5.17	5.01	4.08	4.91	5.13
Pasta and macaroni	3.10	2.88	4.58	1.13	2.61
Fafa products	1.57	1.93	1.81	2.31	0.58
Bread, galleta and biscuit	0.47	0.31	0.25	4.77	1.91
Flour by-products	0.92	1.07	8.87	1.48	0.96
Oil cake	1.93	1.90	1.90	2.19	1.85
Spice products	2.19	1.86	1.99	2.25	3.67
Sugar	34.12	35.15	32.74	55.09	59.48
Molasses	1.10	1.14	1.08	1.66	1.95
Wat	12.12	10.54	7.68	-	-
Other	14.34	12.44	12.20	6.33	3.38
Total	100.00	100.00	100.00	100.00	100.00

Source: *Facts About Public Manufacturing Enterprises, Trade & Tourism*, Addis Ababa, Industry and Trade Department, March 1995, p. 52.

Fig. III.B. Structure of food processing, 1988/89 and 1992/93



Sugar

The sugar industry came to the country in the early 1950s. HVA, a Dutch enterprise, was looking for a new location after it had been forced to leave Indonesia in the late 1940s (after that country's independence). It choose Ethiopia, and its first sugar mill began production in 1954. In 1958, the official name of the company became HVA Ethiopia, with the government receiving a 20 per cent stake in the company, and the balance remaining in Dutch hands.[33/] As with virtually all major industry, the company was nationalized in 1975.

The large Wonji and Methara estates, at which sugar cane grows, have production facilities associated with them. (Each has a production capacity of 100,000 tonnes of refined sugar a year.) Ethiopian production of sugar peaked at 181,196 tonnes in 1985/86, again coming close to that figure 4 years later (in 1989/90, when 171,263 tonnes were manufactured).[34/] The production of refined sugar fell once again the following two years, however. Despite rebounding slightly during 1991/92 (to 149,516 tonnes), decline returned again the next year, with a production figure of only 136,727 tonnes for 1992/93.[35/] Notwithstanding these figures, it is important to recognize that the two enterprises weathered the turbulent period of 1991/92 rather better than most other industries. Although output and value fell, the decline was not as dramatic as was seen in other parts of the food subsector. Indeed, what was a one-third contribution to the overall food sector in 1988/89 had become almost 60 per cent by 1992/93. This is indicative of a particular resilience in the industry.[36/]

In 1992/93, the total value of production of sugar and sugar-related products by publicly-owned enterprises was Br125 million. Moreover, both the Wonji-Shoa Sugar Factory and the Methahara Sugar Factory were reported to have made profits in that year.[37/]

Production is mainly for the domestic market, and what little exports have been declining in recent years. They totalled approximately 42,000 tonnes a year in the mid-1980s (with a value of just over one per cent of all Ethiopian exports), but had fallen to 2,500 tonnes in 1991/92 and 13,123 tonnes in 1992/93.[38/]

Although the sugar sector is dominated by the two large facilities at Wonji and Methara, there is another publicly-owned enterprise (the Addis Ketema Sweet Factory, which produces a small amount of sugar confectionaries), along with five privately-owned facilities. The latter, however, are relatively minor players - in 1989/90, they together employed 119 people, less than 4 per cent of the sector total.

Given that domestic demand for sugar and sugar products surpasses supply, there is scope for expansion in the sector. Although desires, announced in 1989, to build a new sugar complex at Finchaa were dinted by the change of government in the early 1990s, the sector has seen some more recent interest. More specifically, Serv-Techn (a company based in Houston, United States) has announced its plans to construct a sugar factory and ethanol distillery. (This was agreed after the United States Overseas Private Investment agreed to provide $50 million in political risk insurance.) The facility will be capable of processing 4,000 tonnes of sugar and producing 45,000 tonnes of ethanol a day. It has been estimated that the project will increase Ethiopia's sugar production by 40 per cent.[39/]

Flour, bread and pasta

The second-largest component of the food manufacturing industry is that made up of flour, bread, pasta and related products. With regard to flour, there were reported to be, in 1992/93, ten publicly-owned factories that primarily produce flour - the largest of these were located at Awassa, Anbessa, Misrak, and Kokeb. Following the broader trend within the sector, output from these facilities fell during the late 1980s and early 1990s, with production declining by almost two-thirds between 1988/89 and 1992/93 (from 185,500 tonnes to 63,500 tonnes) and the value of production, in constant prices, falling by a similar amount (from Br104,111 (1973 prices) to Br36,889 over the same period).[40/] In addition to these public enterprises (which predominantly supply the urban areas), smaller-scale operations strive to meet rural demands. According to the 1985/86 HASIDA survey there were between 10,000 and 20,000 small-scale mills in operation, each employing 2 or 3 people.[41/]

Within the public sector, there is also a factory producing pasta at Ada, and two establishments, at Kaliti and Fafa, which produce a wider range of foods (including flour and pasta). Output of pasta grew dramatically during the late 1970s, when the factory at Ada came on line: indeed, production almost quadrupled, from 14,000 tonnes to 53,600 tonnes, between 1978/79 and 1979/80. By the mid 1980s, however, the figure had fallen back down to an average of 19,000 tonnes a year, with decline continuing since then. In 1992/93, for example, the Ada Pasta and Macaroni Factory produced only 3,689 tonnes, compared with 8,296 tonnes four years earlier.[42/]

Because the production of bread is better suited to small-scale operations, serving a local market, than large industrial operations, most is produced by smaller, privately-owned enterprises - a 1989/90 government survey reports that there were 52 private sector entities involved in the manufacture of bakery products, which together employed 1,213 people.[43/] To meet the demands from a larger urban population, bread production grew dramatically during the 1980s: from about 30,000 tonnes in each of 1985/86 and 1986/87 to 156,977 tonnes in 1989/90.[44/] Moreover, it appears to have rebounded from the troubles of 1991 more quickly than some other subsectors within the food industry - the real value of output actually increased between 1990/91 and 1992/93.[45/]

Edible oils

In 1992/93, there were eight factories primarily producing edible oils. This figure was a drop from previous years, because the age of a couple of the factories had forced them to be phased-out and

recently shut down. As a result, Ethiopians remain relatively small consumers of these substances - less than 1 kilogram a year.

The Bahir Dar Edible Oil Factory produced the largest single amount of edible oil in the country during 1992/93 - 859 tonnes. This facility is located in the northwest of the country and was constructed in 1983/84, with the assistance of East German financing. During the previous two years, the Modjo Edible Oil Factory - which came on line in 1985/86 - had been the largest single producer. These two, along with the Dil Edible Oil Factory, are the top three producers of edible oils. (This having been said it should be recognized that production is rather evenly distributed amongst the largest seven producers.) The three major producers each were unprofitably in 1992/93, though the Dil Edible Oil Factory showed the smallest losses. Two smaller factories - in Teramaj and Edget - registered small profits.[46/]

In 1989/90, 8,669 tonnes of edible oils were produced in the country as a whole, this was down from a peak in 1986/87 of 15,302 tonnes.[47/] In 1992/93, however, the figure had fallen further, to 3,658 tonnes. This decline is explained not only by the aging of the plant, but also by the fact that it had proved to be more difficult to acquire the necessary raw materials. (Between 1990/91 and 1991/92, for example, the government reported that the production of oil seeds fell by almost 75 per cent.[48/]) In 1992/93, edible oils accounted for 5.1 per cent of the total value produced in the food industry, which placed it third after sugar and flour. The value of production in constant terms has fallen steadily over the past five years, falling by approximately one-half between 1989/90 and 1992/93. This, however, generally mirrors broader trends within the food industry as a whole.

However, production of edible oils is set to increase during the coming years. This will result not only from greater use of existing capacity, but also because a new facility is set to come on line. The Addis-Mojo Oil Factory, which has been built with Italian assistance, begin trial production during September 1995. One report estimates that this factory will cover 28 per cent of the country's and 100 per cent of Addis Ababa's oil consumption. The $9 million enterprise will have an annual output of 17,000 tonnes of cooking oil, 5,850 tonnes of vegetable oil, 754 tonnes of margarine, 250 tonnes of sari acid and 45 tonnes of fodder.[49/]

Another product coming out of this industry is oil cake. This good, which is an important byproduct of the oil seed milling process, is used as an animal feed supplement. Production of oil cake peaked in 1978/79 at 74,200 tonnes, falling to 17,100 tonnes in 1985/86. It then rose during the second half of the 1980s, reaching 40,684 tonnes in 1988/89. It has again fallen, however, with the figure standing at 16,478 tonnes in 1992/93.[50/] Given that it is a by-product of the process producing edible oils, it is somewhat surprising to discover that production is more concentrated than in this primary good: the Modjo Edible Oil Factory produced almost one-third of the total amount in 1992/93, with the Nazareth Edible Oil Factory and the Adama Edible Oil Factory - the second and third largest producers - each producing less than half this figure. In total, oil cake is the eighth most valuable product coming out of the food industry, accounting in 1992/93 for 1.8 per cent of the total.[51/]

Oil cake was also an important export commodity for Ethiopia during the first half of the 1980s. In 1983/84, for example, it accounted for 4.8 per cent of the value of non-coffee exports (Br16.1 million on a quantity of 49,218 tonnes). A combination of declining production and increasing domestic demand has meant that exports have fallen - to less than Br1 million by 1988/89 and they have not rebounded since then. (In terms of quantity, they stood at 300 tonnes in 1990/91 and 0 the following year.)[52/]

Beyond the production coming from publicly-owned facilities, figures from 1989/90 reveal that there were three private establishments involved in the manufacture of 'vegetables and animal oils and fats', between them employing 110 people (6 per cent of all employees). Alternatively, a HASIDA survey estimated that, in 1985/86, there were about 17 private sector mills operating (ten of these employing less then ten people), and were thought to produce about 5,000 tonnes per year.

Spices

In 1970, a spice extraction plant was established as a joint venture between an Ethiopian and a company of the United States. The facility - the Ethiopian Spice Factory - primarily produces spiced ground red pepper, paprika and semi-finished capsicum. Using inputs from domestic smallholders, production in 1992/93 was valued at Br7,335,000. This was exclusively generated by the relatively more-lucrative paprika and capsicum.[53/]

Much of the output is exported - between 1985/86 and 1989/90, an average of 105 tonnes was sent to (primarily) the USSR and Europe annually, generating Br6.7 million.[54/] There is good potential for expansion in the export of spices. Not only would rehabilitation of the domestic plant increase output, but there is the possibility for diversification with ginger, garlic and black pepper tumeric showing the greatest potential.[55/]

Meat

The Ethiopian Meat Concentrate, the Dire Dawa Meat Factory, the Sopral Combolcha Meat Factory, the Gondar Meat Factory and the Ethiopian Livestock Development (Melge Wondo) - all publicly-owned - are the five enterprises involved in the production, processing and preserving of meat products. (This is, of course, in addition to the backyard slaughtering that takes place, primarily in rural areas.) Most of the output is in the form of canned wot (or 'watt'), which is an Ethiopian curry made from beef and mutton. (In 1989/90, for example, this accounted for 55 per cent of the value of total production). Other products of significance include corned beef, beef in jelly, boiled beer, minced meat and products which undergo no processing (that is, frozen carcasses and boned meat). The turmoil of the early 1990s hit this industry particularly hard, for production fell dramatically in both 1991/92 and 1992/93.[56/]

Given the size of the Ethiopian livestock population, there is considerable scope for the export of manufactured meat products. During the first half of the 1980s, an average of 1,900 tonnes was exported annually - this figure fell to under 1,000 tonnes after 1986/87, with no exports at all registered in 1991/92 and only 40 tonnes the following year. Thus, what had been worth about Br5 million a year in foreign exchange earnings during the earlier period had completely dried up by the beginning of the 1990s.[57/]

Beverage industry

There were 14 publicly-owned establishments involved in the beverages industry in 1992/93. Although most (that is, one-half) were located in Region 14, the industry showed a more even distribution than virtually all the other manufacturing sectors (not surprising considering the domestic demand). Together, these enterprises employed 7,421, operated at 67.4 per cent capacity, and contributed 15.9 per cent to the value of all industrial production. Table III.6 reveals the main products from this sector.

Table III.6. Major products of beverage manufacturing, 1988/89-1992/93
(Percentage share)

	1988/89	1989/90	1990/91	1991/92	1992/93
Liquor	12.06	15.30	18.97	16.46	10.65
Wine	7.21	7.87	-	9.81	7.12
Beer	49.82	44.65	57.38	32.39	26.71
Soft drinks	7.49	7.90	9.33	11.58	7.36
Mineral water	1.92	2.11	1.68	2.13	2.10
Malt	8.87	9.89	9.80	10.98	22.51
Other	12.61	12.28	2.84	16.65	23.56
Total	100.00	100.00	100.00	100.00	100.00

Source: *Facts About Public Manufacturing Enterprises, Trade & Tourism*, Addis Ababa, Industry and Trade Department, March 1995, p. 52.

Beer

Within the beverage sector as a whole, the largest single component was the 'malt liquors and malts' category, accounting for almost half (49.2 per cent) of the value of total production in the sector in 1992/93.[58/] The beer element of this was realized by three breweries, each of approximately the same size. They were located in Addis Ababa (the St. George Brewery, which was opened in the 1920s), in Sebetta (the Meta Brewery, built in the 1960s) and in Hararge (the Harar Brewery, completed in the mid 1980s with financial assistance from the Czechoslovakians).

Before the Assela Maltery in Arsi was completed in 1984, most of the malt required for the industry had to be imported. With this constraint relaxed, however, production figures increased dramatically during the second half of the 1980s. Output from the three breweries, however, fell steadily between 1988/89 and 1991/92 - from just over 60 million litres to just under 19 million litres. Recovery is well under way - in 1992/93, the production figures had risen to almost 24 million litres.[59/]

In addition, the production of malt itself has increased to such an extent that it is rivalling beer in terms of value (84.3 per cent of the value in 1992/93). After the Assela Maltery opened, malt production grew rapidly, with an output of 11,000 tonnes in 1988/89 - 110 per cent of nominal installed capacity. Expansion of the Assela Maltery and the production of malt at the St. George Brewery helped to double this production figure to 22,000 tonnes in 1992/93 (with a value of over Br42 million).[60/] The development of the malt industry has also strengthened the backward linkages to the agricultural sector.

Soft drinks and carbonated water

Of the other elements making up the beverage industries, the soft drinks and carbonated water industries is second to beer. They are produced from seven facilities, two (at Ambo and Babile) produce mineral water, while the others produce a relatively narrow range of soft drinks (of these, the most significant are the Addis Soft Drinks Factory, the Abay Mesk Soft Drinks Factory and the Dire Dawa Soft Drinks Factory). Each serves a regional market.

The output of soft drinks rose steadily during the 1980s - within the public sector, for example, production rose from 10.4 million crates in 1985/86 to 13.1 million in 1988/89.[61/] As with most manufacturing activity, however, production and sales suffered during the late 1980s and early 1990s. Nevertheless, the worst seems to have been weathered, for the real value of production in 1991/92 and 1992/93 was virtually identical. Mineral water production, meanwhile, appears to be well on its way to recovery: output at the Ambo Mineral Water Factory increased by 30 per cent between 1991/92 and 1992/93.[62/]

There are plans to partially privatize parts of the industry in the near future. It is proposed that the soft drinks and mineral water factories will be jointly operated by government and private enterprise, with the government retaining a stake of between 25-49 per cent.[63/]

Spirits

Spirits make up the third largest component of the sector, with araki (pastis), brandy and rum being the major products. They are produced at eight distilleries and blending plants (some of which are private, which is unique in the beverages industry). Output doubled during the first half of the 1980s, thereafter levelling off at an average of about 55,000 hectolitres a year. The largest publicly-owned factory, the 'National Alcohol and Liquor Factory', produced about 3 million litres in 1992/93.[64/]

Wine

There are two wineries in Addis Ababa (publicly-owned by the Ethiopian Beverage Corporation) and one private one. Approximately 1,000 hectares are under cultivation for grapes, and these form the basis for much of the export wine produced. Wine for domestic consumption,

meanwhile, is produced from raisins imported from Turkey and the Yemen Arab Republic. Production during the second half of the 1980s was steady at just under 100,000 hl. There are some export possibilities in the sector. All elements of the beverage industry, however, are hampered by two major problems: bottle shortages and problems with the country's transportation infrastructure.

Tobacco industry

Cigarettes, retailing largely under the name 'Nyala', are produced at a publicly-owned factory in Addis Ababa. This establishment employed 984 people in 1992/93, and produced just under 1.3 million units. Valued at Br79.4 million, the factory contributed 6.7 per cent to the value of the country's industrial production. Although the production represented a decline compared with two, three or four years previously, it was not down as much as some other industries; moreover, recovery appears to be well under way. Capacity had already increased to 67.5 per cent (as compared with the previous maximum production) by 1992/93.[65/]

Given the modest-size of the Ethiopian tobacco crop, the industry is relatively import-dependent (averaging 64 per cent of raw material costs between 1988/89 and 1992/93). Nevertheless, it is still a profitable one, making Br13,000 in 1992/93. Moreover, it has achieved this will relatively little public investment (for example, it received less than 0.25 per cent of all industrial public investment between 1988/89 and 1992/93).[66/]

Critical constraints

Three major problems affect the efficient operation of most of the enterprises in these industrial subsectors: overmanning, lack of experience in operating in competitive markets and difficulties in retaining foreign markets.

Overmanning is the problem of almost all state enterprises and is the manifestation of the policy of the previous regime which favoured employment without taking account of the profitability of an enterprise. Lack of experience in competitive markets is also due to the centrally planned/controlled economic policy of the previous regime which separated the manufacturer from the market and gave the job of marketing to state-owned wholesaling and retailing companies.

The problem of retaining foreign markets is mainly pronounced in the agro-industries producing meat, vegetable and fruit products. These enterprises used to export a large portion of their products some years back but are now finding it difficult even to achieve their previous export volumes due to stringent health and sanitation requirements on the part of the importing countries and increasing competition from other countries.

Prospects for further development

Ethiopia is an agricultural country with a big potential for development. Although about 65 per cent of the country's total area is arable land, only 15-20 per cent of this land is under cultivation at present. The water resources of the country are also very vast, but only a small proportion is used for irrigation and electricity.

Almost all of the major raw materials for the food, beverages and tobacco industries come from the agricultural sector. Thus, the development of these industries is closely linked with the development of agriculture. Cognizant of this fact, the Ethiopian Government has taken a number of measures to increase agricultural productivity.To that effect, it has allowed the farmer to sell all his products on a free market. It has also encouraged the peasants to use extensively agricultural inputs such as fertilizers and select seeds. In addition, the Government has allowed investors to develop land that were not occupied by peasants. These measures are already bearing fruit and it is expected that there would be significant development of the agricultural sector in

the coming years.This would surely increase the raw material supply for the food, beverages and tobacco industries.

Indeed, there is great promise in the food sector, both in terms of agricultural crops and manufactured products. With regard to the former, the potential for increasing harvests could be realized by, for one, increasing the use of irrigation. Kinfe Abraham argues that there are a number of river basins with a total runoff of 105.5 billion cubic metres, 96 per cent of which flows to neighbouring countries. This offers immense potential for irrigation, 3.5 million hectares of land could be developed to make the country the bread basket of the Middle East and North Africa'.[67/] Only 1 per cent of Ethiopia's cropland is presently irrigated, a figure that places it well below the African average of 6 per cent. Indeed, it has been estimated that the amount of land-area irrigated could be doubled relatively easily. Fertilizer use is also below the continent's average - 7 kilograms per hectare of crop land in Ethiopia annually, as compared with 20 kilograms in Africa.[68/]

National and international agencies are starting to take up to these possibilities. The International Development Association, for example, has recently approved two schemes of credits. One, valued at $120 million, will develop a national project designed to liberalize the fertilizer sector and involve the private sector in what has hitherto been the preserve of the state. This is expected to contribute significantly to enhanced food security at national and household levels, improve soil management and strengthen fertilizer-related institutions. Another is a seed systems development project. Valued at $22 million, it will contribute to the goal of increased agricultural output by laying the foundation for the development of a broad-based and competitive seed industry.

Improved technology and practices will also increase yields. Much of the outmoded machinery in the sector is to be replaced, and the breeding and feeding practices of livestock are to be scrutinized, so that the incidence of animal diseases - which have, in the past, plagued livestock development - can be reduced.

Institutionally, meanwhile, state farms are to be consolidated, rationalized and privatized on the basis of an in-depth study of their financial and managerial problems. More generally, the previous policies - which served to obstruct private farming - have been reevaluated. Amongst the changes (some of which were set in train before the change of government in 1991) include: an elimination of compulsory sales to the state, the establishment of legal tenures, the acceptance of the use of private labour and the creation of large commercial farms.

The population of Ethiopia is estimated at more than 50 million, and the annual growth rate of the population is about 3 per cent. This would obviously increase the domestic demand for food and beverages at a considerable rate. Given the country's proximity to the large Middle East market, and Ethiopia being a member of COMESA, the export potential for food and beverage products is also very significant.

B. TEXTILES AND CLOTHING

Background

In the late 1940s, the textile industry ranked second only to the food industry in terms of production and employment. Within this, the cotton industry was dominant. The majority of it, however, was made up of foreign capital. The Indo-Ethiopian Factory, for example, was 41 per cent Indian-owned, with only 25 per cent Ethiopian participation (both public and private). By the same token, the so-called Ethiopian Cotton Company was originally organized by the Italians and later taken over by the Japanese. Another major cotton factory located at Asmera was owned by an Italian, and the so-called Ethio-fabrics Share Company was dominated by Swiss capitalists.

Likewise, the Tendaho cotton plantation was virtually completely owned by the British company Mitchel Cotts.[69/]

With the revolution in 1975, however, came nationalization of the industry. Even with the onset of economic reform after 1991, the industry still remains predominantly in public hands. There are a number of privately-owned knitting mills, but they contribute less than 2 per cent to the value of the production in the sector.

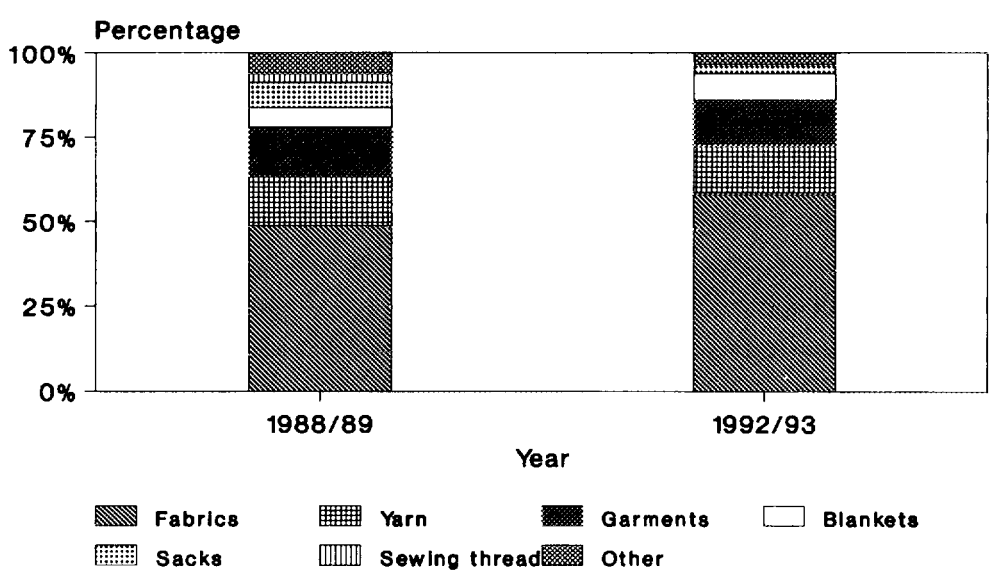
Thus, textiles and clothing are dominated by the 17 publicly-owned establishments. They are located around the country: nine in Region 14, three in Region 3, two in Oromiyaa and one in each of Southern Ethiopia, Region 12 and Dire Dawa. Together, they employed 19,717 people in 1992/93, worked at 61.6 per cent of capacity and contributed 19.3 per cent to total value of industrial production.

Table III.7. Major products of textile manufacturing, 1988/89-1992/93
(Percentage share)

	1988/89	1989/90	1990/91	1991/92	1992/93
Fabrics	48.60	48.82	49.25	55.31	57.98
Yarn	14.73	15.63	12.37	15.15	14.73
Blankets	5.86	4.46	4.11	2.47	7.80
Garments	14.57	19.71	16.71	12.71	13.27
Sacks	7.46	6.29	6.74	3.86	2.46
Sewing thread	2.78	2.15	2.87	1.35	0.46
Other	6.00	2.95	7.94	9.15	3.29
Total	100.00	100.00	100.00	100.00	100.00

Source: *Facts About Public Manufacturing Enterprises, Trade & Tourism*, Addis Ababa, Industry and Trade Department, March 1995, p. 52.

Fig. III.C. Structure of textile production, 1988/89 and 1992/93



Technical overview

The main products manufactured in the Ethiopian textile and fibre industry are cotton fabrics, nylon fabrics, acrylic yarn, cotton yarn, woollen and waste cotton blankets, carpets, gunny and polypropylene bags, hosieries and sewing thread. The production capacities employed to manufacture these products are shown in Table III.8.

Table III.8. Production capacities of main textile products, 1992/93

Product	Unit of measure	Annual production capacity
1. Cotton fabrics	Thousand square metres	140,000
2. Nylon fabrics	Thousand square metres	8,100
3. Acrylic yarn	Tonnes	940
4. Cotton yarn	Tonnes	16,000
5. Blanket (woollen)	Pieces	660,000
6. Blanket (waste cotton)	Pieces	1,160,000
7. Carpets	Square metres	56,000
8. Gunny bags	Thousand pieces	20,000
9. Hosieries	Dozen	1,111,300
10. Sewing thread	Tonnes	260

Source: Industry and Trade Department.

Most of these products are manufactured by state owned enterprises. The major enterprises in the subsector are Akaki Textiles Factory, Dire Dawa Textiles Factory, Bahir Dar Textiles Factory, Debre Berhan Wool Factory, Combolcha Textiles Factory, Ethio-Japanese Synthetic Textiles Factory, Awasa Textiles Factory and Arba Minch Textiles Factory. All of the above enterprises except Ethio-Japanese Synthetic Textiles Factory are owned by the State. Ethio-Japanese Synthetic Textiles Factory is a share company jointly owned by the Government of Ethiopia and two Japanese companies, Toray and Mitsubishi. Privately owned enterprises consist mainly of knitting mills producing knitted products and hosieries.

Table III.9. Major enterprises in the textiles and fibres industry, 1992/93

Name of enterprise	Location	Employment (persons)	Annual capacity
1. Akaki Textiles Factory	Akaki Town, Central Region	5,000	36 million square metres dyed and printed fabrics
2. Dire Dawa Textiles Factory	Dire Dawa Town, Eastern Region	6,000	40 million square metres dyed and printed fabrics
3. Bahir Dar Textiles Factory	Bahir Dar Town, Northern Region	3,000	20 million square metres dyed and printed fabrics
4. Debre Berhan Wool Factory	Debre Berhan Town, Northern Region	800	694,000 pieces of blankets
5. Combolcha Textiles Factory	Combolcha Town, Northern Region	3,000	22 million square metres dyed and printed fabrics
6. Awasa Textiles Factory	Awasa Town, Southern Region	1,500	12 million square metres gray fabrics and 36 million square metres dyed and printed fabrics
7. Arba Minch Textiles Factory	Arba Minch Town, Southern Region	1,500	28 million square metres gray fabrics
8. Ethio-Japanese Synthetic Textiles Factory	Modjo Town, Central Region	700	5 million square metres nylon fabrics

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93*, Addis Ababa, August 1994.

Geographically, the major textile enterprises are dispersed throughout the country. Most of the plants are located in the towns from which they took their names. Three of the major enterprises are located in the northern, two in the southern, one in the eastern, and two in the central part of the country. Basic information such as annual capacity, employment and location of the major plants is given in Table III.9.

The gross value of production of the subsector was about Br403 million in 1989/90 fiscal year. This was about 22 per cent of the total manufacturing output. However, the present gross value of production of the subsector is expected to be higher than the figure indicated above, mainly because of improved capacity utilization.

The resource base

The major inputs of the textile industry are cotton, nylon yarn, wool, acrylic yarn, kenaf and jute fibers, chemical dyestuff, and batching oil. A large portion of cotton, sisal and some chemicals is locally supplied. All other major inputs are imported. Although there was a good local supply of cotton during the mid-1980s and the previous years, it has now significantly declined and, as a result, large quantities of cotton are being imported. Some data on the quantity of major raw materials consumed during 1992/93 fiscal year by about 28 major enterprises in the subsector are given in Table III.10.

Table III.10. Major raw materials consumed by textile and fibre enterprises, 1992/93

Raw material	Unit of measure	Quantity consumed (tonnes) Local	Imported	Total
1. Cotton yarn	Tonnes	271	39	310
2. Polyester fibre	Tonnes	-	222	222
3. Jute fibre	Tonnes	-	2,937	2,937
4. Sisal leaves	Tonnes	10,881	-	10,881
5. Wool (waste)	Tonnes	2	1,823	1,825
6. Acrylic yarn	Tonnes	13	311	324
7. Cotton (lint)	Tonnes	10,997	3,019	14,016
8. Nylon yarn	Tonnes	-	214	214
9. Chemical dyestuff	Tonnes	719	643	1,362
10.Batching oil	Tonnes	-	115	115

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93*, Addis Ababa, August 1994.

Recent trends

All of the state-owned enterprises in this subsector used to be managed under the now dissolved National Textiles Corporation. Presently, the enterprises are supervised by boards of management for which three members are appointed by the Government and two elected by labour. The enterprises have been given wide antonomy in deciding their product mix, selecting sales outlets and sources of raw materials, and fixing prices.

The Government of Ethiopia has already started privatizing some state enterprises such as hotels, department stores, retail shops and few industries. It is expected that the privatization process would eventually include also state enterprises in the textile and fibre subsector. However, no privatization measure has been taken in the subsector so far.

Critical constraints

The major constraints of the subsector are increasing prices of raw materials, competition from imports, overmanning, and lack of experience in operating in competitive markets. The price of most raw materials has increased manyfold. For instance, the price of cotton has increased from Br3.50/kg in 1992 to Br11.50/kg in 1995 mainly due to the devaluation of the birr.

Both legally imported and contraband garments are entering the country in large volumes. Foreign garments are low priced and much superior in quality. As a result, they pose stiff competition to the local garment producers and tailors.

Almost all of the state-owned enterprises are overmanned, mainly because of the policy of the previous regime which had favoured employment irrespective of the profitability of an enterprise. Reducing the number of employees has now become necessary for the competitiveness of the enterprises, although its social consequences may be unfavourable. The state-owned enterprises used to sell their products to state-owned distribution companies at fixed prices. They have no experience of operating in competitive market environment where prices are changing based on market conditions.

Prospects for further development

Ethiopia is an agricultural country with a big potential for development. The large water resource of the country which could be used for irrigation and power generation is not yet sufficiently exploited. Only 15-20 per cent of the arable land (65 per cent of the country's total area) is under cultivation and only 2 per cent (1.2 billion kWh/year) of the country's substantial hydro-electric potential (60 billion kWh/year) is being utilized.

Cotton, one of the major raw materials for the textiles industry, can be grown in large commercial farms in many parts of the country. However, due to the centrally planned and controlled economic policy of the Dergue Regime, private investment especially in the agricultural sector was prohibited. It is expected that, with the new economic policy that encourages private investment, commercial farming, including cotton plantations, would expand in the short run. This would encourage the development of the textile industry in the country.

There is a good supply of cheap semi-skilled labour, which can be easily up-graded to skilled labour. The accumulated manufacturing experience in the subsector is also quite significant. It has to be noted that all of the manufacturing enterprises in the subsector are wholly run by Ethiopian managers, engineers and technicians.

Ethiopia is a member country of COMESA (Common Market for Eastern and Southern African Countries) which incorporates about 20 countries. Textile products are some of the major imports of these countries. Therefore, there is a huge export potential for the Ethiopian textile industry to export its products to these countries.

C. LEATHER AND FOOTWEAR

Background

With Ethiopia being home to Africa's largest livestock population, the country has been encouraged to develop a significant industry in hides and skins. It ranks as the second largest export commodity, accounting for 21 per cent of export earnings in 1991/92 and 17 per cent the next year.[70/] Preliminary figures suggest that its contribution has continued to be important since then: one source reports that the value of exported goat hides for gloves has recently been about $2 million a year.[71/]

In 1992/93, there were 10 publicly-owned establishments in the leather and shoe industry in operation - together they employed 6,283 people, were working at 100 per cent capacity (that is, the greatest output for the previous 20 years) and contributed 11.3 per cent to the total value of industrial production. The largest tanneries were the Ethiopian Tannery, the Medjo Tannery, the Awash Tannery and the Addis Tannery. Leather shoes were produced at the Tikur Abbay Shoe Factory and the Anbessa Shoe Factory, while canvas shoes were made at the Ethiopian Rubber and Canvas Shoe Factory (which also produced a smaller number of wellington boots). Universal Leather Articles produces a small amount (in terms of value) of higher-quality leather goods - for example, briefcases, hand-bags and wallets.

Technical Overview

The leather and footwear subsector is a fairly well developed industrial subsector. The main products of the subsector are semi-processed skins, crust hides, wet blue hides, leather shoes, boots, canvas and rubber shoes, plastic footwear, leather upper and leather lining, and leather sole. The domestic production capacities employed to manufacture these products are shown in Table III.11.

Table III.11. Production capacities of main leather and footwear products, 1992/93

Product	Unit of measure	Annual production capacity
1. Semi-processed skins	Thousand pieces	11,000
2. Crust hides and wet blue hides	Thousand square metres	12,000
3. Leather shoes and boots	Pairs	2,823,400
4. Canvas and rubber shoes	Pairs	4,902,000
5. Plastic footwear	Pairs	300,340
6. Leather upper and lining	Pairs	21,440
7. Leather sole	Tonnes	370

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93*, Addis Ababa, August 1994.

Most of these products, including footwear, are produced both by private enterprises and state-owned enterprises. The major enterprises in the industry are Awash Tannery, Ethiopian Tannery, Addis Ababa Tannery, Combolcha Tannery, Modjo Tannery, Ethiopian Pickling & Tanning, Anbassa Shoe Factory, Ethiopian Canvas and Rubber Shoe Factory, Tikur-Abbay Shoe Factory and Universal Leather Articles Factory. All the major enterprises are owned by the state. Basic information on these enterprises is given in Table III.12.

There is a large number of privately owned enterprises in the subsector. Most of them are small-scale footwear factories and leather garment production plants.

With the exception of Ethiopian Tannery, Modjo Tannery and Combolcha Tannery, all of the major enterprises are located in Addis Ababa. The Ethiopian Tannery is located about 90 kms south east of Addis Ababa. Modjo and Combolcha Tanneries are located in the towns or Modjo, 70 kilometres south-east of Addis Ababa, and Combolcha 380 kilometres north of Addis Ababa. Privately owned enterprises are mainly concentrated in Addis Ababa.

Fig. III. D. Production capacities of selected footwear products, 1992/93

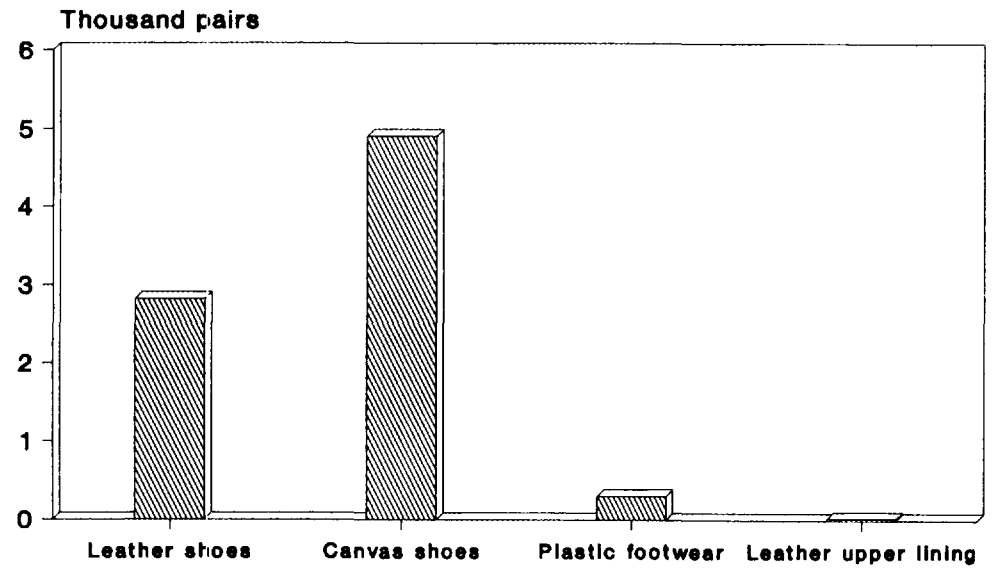


Table III.12. Major enterprises in the leather and footwear industry, 1995

Name of enterprise	Location	Employment (persons)	Annual capacity
1. Awash Tannery	Addis Ababa	600	Soaking capacity - skins: 3 million pieces - hides: 240,000 pieces
2. Ethiopian Tannery	Modjo Town Central Region	700	Soaking capacity - skins: 3.6 million pieces - hides: 360,000 pieces
3. Addis Ababa Tannery	Addis Ababa	250	Soaking capacity - skins: 600,000 pieces - hides: 950,000 pieces
4. Modjo Tannery	Modjo Town, Central region	350	Soaking capacity - skins: 2.1 million pieces
5. Ethiopian Pickling & Tanning	Addis Ababa	250	Soaking capacity - skins: 2.7 million pieces
6. Combolcha Tannery	Comblocha Town, Northern Region	150	Soaking capacity - skins: 1.2 million pieces
7. Anbassa Shoe Factory	Addis Ababa	..	800,000 pairs of shoes
8. Ethiopian Canvas & Rubber Shoe Factory	Addis Ababa	800	800,000 pairs of shoes
9. Tikur-Abbay Shoe Factory	Addis Ababa	700	1,200,000 pairs of shoes
10. Universal Leather Articles Factory	Addis Ababa	..	..

Source: Based on information obtained from the respective enterprises.

The gross value of production of the subsector was about Br290 million in 1992/93 fiscal year representing 11 per cent of the total manufacturing output.

The resource base

The leather and footwear industry is a resource based industry. The major raw materials of the industry are sheep and goat skins and hides. As Ethiopia has the largest livestock population in Africa, these raw materials are abundantly available locally.

Different chemicals such as salt and chrome and other auxiliary supplies are required for the operation of the enterprises in the subsector. Most of these inputs are imported mainly from European countries. The quantity of major raw materials consumed by the leather and footwear industry during the 1992/93 fiscal year is shown in Table III.13.

Table III.13. Major raw materials consumed by the leather and footwear industry, 1992/93

Major raw material	Unit of measure	Quantity consumed		
		Local	Imported	Total
Sheep and goat skin	Thousand	7,168	-	7,168
Hides and skins	Tonnes	3,310	-	3,310
Leather upper	Thousand square feet	2,874	-	2,874
Leather lining	Thousand square feet	190	-	190
Leather sole	Tonnes	46	-	46
Chemicals	Tonnes	2,311	5,129	7,440

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

Recent trends

The leather and footwear subsector is a moderately growing subsector. The gross value of production of the subsector was about Br240 million in 1987/88. This figure had risen to Br290 million in 1992/93. This is an increase of about 20 per cent within five years.

The subsector is a leading exporter of manufactured products. The value of exported products was Br135 million in 1992/93 fiscal year representing 17 per cent of total exports. Most of the products are exported to the United Kingdom, Italy, Japan, United States, Germany, Spain and Greece.

Prospects for further development

Ethiopia stands first in Africa and tenth in the world in terms of the size of livestock population. The livestock population of Ethiopia is estimated at about 70 million heads. Ethiopia exports a large quantity of hides, skins and live animals. Hides and skins are the country's highest export earning products next to coffee. The products being exported so far are mainly semi-processed skins and hides. There is a big unexploited potential of producing finished leather and leather articles for the export market. Producing finished leather and leather articles would increase the value added and could earn large amounts of foreign exchange to the country.

There is a good supply of cheap semi-skilled labour, which can be easily upgraded to skilled labour. The Leather and Leather Products Institute, which is mainly engaged in providing training to the leather and leather goods industry of the Eastern and Southern African countries, is located

in Addis Ababa. There are also a number of local training institutions which may assist is upgrading the skill of labour employed in the subsector.

The accumulated manufacturing experience in the subsector, especially in the leather footwear manufacturing branch, is also quite significant. This experience, together with foreign know-how, can be easily tapped and used to produce high quality leather goods, such as shoes and leather garment, for the export market.

D. WOOD AND WOOD PRODUCTS

Background

Forests once covered most of Ethiopia - even in 1950, there was six times more forest cover than there is at present. It is estimated that only 4 per cent of the country is presently under forest cover (though a larger area has open woodland savannah). The annual rate of deforestation during the 1980s was approximately 0.3 per cent. The Economist Intelligence Unit quotes a World Bank report which says that Ethiopia needs a 20-year programme costing more than $400 million to replant 4 million hectares. Without it, the Bank calculates that the demand for wood for fuel will exceed resources within two decades.[72/]

Because of the demand for wood to meet household energy requirements, the worst deforestation has taken place around urban areas. Most - that is more than one-half - of the forests that remain can be found in the western part of Ethiopia (particularly the regions of Kefa and Ilubabor); a further one-third are in the south.[73/]

Deforestation obviously has implications for the wood and wood products industry, and the industry has experienced a corresponding decline since the early 1980s. Nominal installed saw capacity at that time was estimated to be 220,000 cubic metres per year. Most of the saw mills were old, even then, working with obsolete machinery and finding it difficult to secure spare parts. Consequently, many mills subsequently closed.[74/] Output of finished timber declined steadily during the 1980s: the FAO reports that the production of sawnwood fell from 45,000 cubic metres in 1982 to 12,000 cubic metres in 1993. Reductions were also experienced in the production of fibreboard, sawlogs and veneer, and wood-based panels.[75/] This has been accompanied by an increase in demand for fuelwood and charcoal. The FAO also reports that the production of these goods increased from 33 million cubic metres in 1982 to 45 million cubic metres in 1993 - not surprising given the increase in the size of the population.[76/]

In 1992/93, the government reported that there were eight publicly-owned establishments in the wood and wood products industry in operation. All were located in Region 14, and together they employed 4,297 people, operated at 78 per cent capacity and accounted for 2.2 per cent of industrial production. Of these, half produced furniture (with the most significant being at Warka [a facility called Mosvold] and Finfine [3F]), and, of the others, the enterprise at Ecafco was the most important, producing less-refined products.[77/]

This industry comprises the industrial sub-branches of sawmills, planing and other wood works, and manufacture of furniture and fixtures. The main products manufactured in the industry are plywood, chipboard, household and office furniture, and fixtures. The production capacities employed to manufacture these products is as shown in Table III.14.

Most of the enterprises in the subsector are small privately-owned wood workshops engaged in manufacturing household and office furniture. Timber, plywood and chipboard manufacturing enterprises are relatively of larger scale and are mostly owned by the State. All of the major enterprises are located in Addis Ababa. Most of the saw-mills are located in the southern and

western parts of the country where large quantities of timber are available. The capacities, location, and employment of the major enterprises in the subsector are given in Table III.15.

Table III.14. Production capacities of main wood and wood products, 1992/93

Product	Unit of measure	Annual production capacity
1. Timber	Cubic metres	7,100
2. Plywood	Cubic metres	4,500
3. Chipboard	Cubic metres	14,200
4. Furniture and fixture	Thousand birr	7,600

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

Fig. III.E. Production capacities of selected wood and wood products, 1992/93

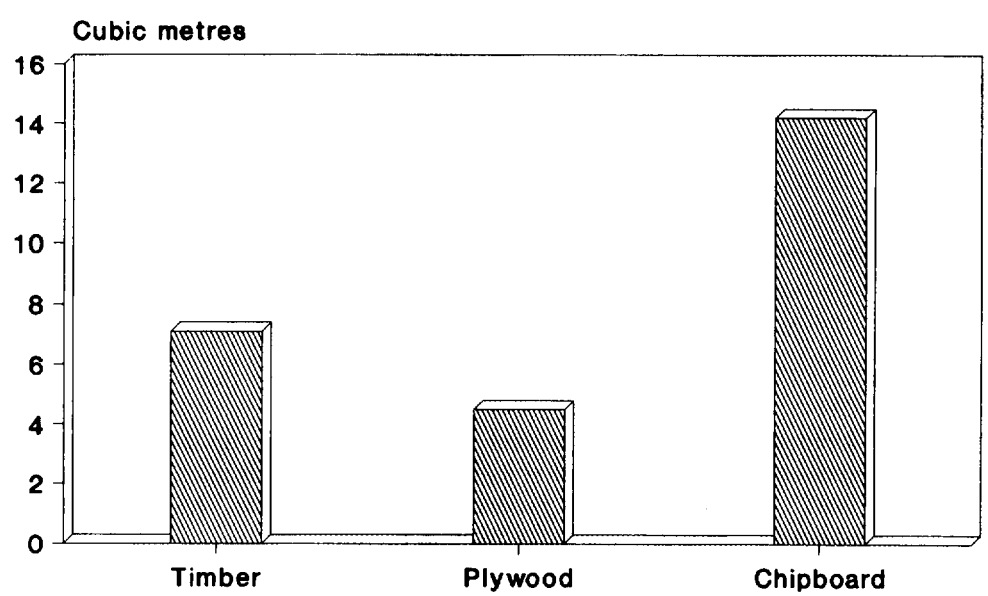


Table III.15. Major enterprises in the wood and wood products industry

Name of enterprise	Location	Annual capacity
1. Ethiopian Plywood Enterprise	Addis Ababa	4,500 cubic metres plywood
2. Saw Mill & Joinery Production & Marketing Enterprise	Head Office in Addis Ababa Saw Mills in South & West	6,400 cubic metres plywood
3. ECAFCO	Addis Ababa	Br12 million
4. Finfinne Furniture Factory (3F)	Addis Ababa	Br6 million
5. Warka Furniture Factory	Addis Ababa	Br5.3 million
6. Wanza Wood Works	Addis Ababa	Br6 million
7. Blue Nile Furniture Factory	Addis Ababa	Br5 million

Source: Based on information obtained from the enterprises.

The resource base

The major raw materials required are chipboard, formaica, log, plywood and veneer. Except veneer, which is imported in large quantities, almost all of the major raw materials are locally available. However, the local supply is increasingly dwindling because of deforestation.The quantity of major raw materials consumed by the industry during the 1992/93 fiscal year is given in Table III.16.

Table III.16. Major raw materials consumed by the wood and wood products industry, 1992/93

Major raw materials	Unit of measure	Quantity consumed Local	Import	Total
1. Chipboard	Pieces	9,987	-	9,987
2. Formaica	Pieces	1,362	100	1,462
3. Plywood	Pieces	16,140	-	16,140
4. Veneer	Square metres	46,986	236,471	283,457
5. Log	Cubi metres	25,042	-	25,042

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

Recent trends

There has not been much change in the total value of production during the past five years, although the volume of production of timber and plywood has sharply decreased by about 50 per cent to 75 per cent. There is no export production in the subsector. Moreover, there are no major new or expansion projects being undertaken at the moment.

Critical constraints

The major constraint in the subsector is shortage of raw materials. Because of the diminishing forest resource of the country, it has become very difficult to supply the enterprises with the required quantities of timber and log. There is also a marketing problem in case of certain wood products as a result of competition from imports.

Prospects for future development

The wood and wood products industry is a forest resource-based industry. At the beginning of the century, the forest covered land of Ethiopia was estimated at about 40 per cent. However, due to the high rate of deforestation that went on unchecked over the years, the forest-covered land remaining now is estimated at only 3 per cent. As a result, the supply of timber has become increasingly scarce. Currently, some effort is being made both by the Government and some NGOs working on community development to reverse the situation. There are some afforestation and commercial forestry programmes pursued in some parts of the country which, if sustained, may be able to ensure steady supply of wood to the enterprises in the subsector.

Urban centres are the major consumers of the products of wood and wood products industry. At present the urban population is estimated at about 11 million and the growth rate is about 6 per cent per annum. This high growth rate coupled with the rapid urbanization process and formation of business establishments creates a high domestic demand for furniture and construction materials manufactured from wood.

E. PULP AND PAPER, PRINTING AND PUBLISHING

Activity in Ethiopia's pulp and paper industry centres around two publicly-owned enterprises. The largest of these is the Ethiopian Pulp and Paper Share Company, which is located in Wonji. Established in 1955, its capacity is nominally 10,000 tonnes a year. In 1992/93, it produced just under 7,500 tonnes, the majority of which (almost 63 per cent) was 'writing and painting' paper.[78/] Notwithstanding the name of this factory, Ethiopia produces no pulp. Consequently, domestic demand can only be met when sufficient foreign exchange can be found to pay for imports (the price of which fluctuates dramatically). In 1989/90, the country imported 6,084 tonnes of the material.[79/] The country also imports quantities of 'paper and paperboard'. The FAO estimated that in 1993, 5,000 tonnes were imported - they have been as high as 13,000 tonnes (1985).[80/] These imports are, of course, also restricted by the amount of foreign exchange available.

With regard to the printing and publishing industry, there were seven publicly-owned establishments in operation in 1992/93. Five of these were located in Region 14, while there was one in each of Regions 3 and 13. Together they employed 5,613 people, operated at 67 per cent capacity (as compared with the maximum production over the past 20 years) and contributed 5.5 per cent to the total value of industrial production in the country. The Berhane Selam Printing Press, the Artistic Printing Press and the Commercial Printing Press were the most significant ones that produced the traditional range of publishing materials. A wider range of goods (including toilet paper), meanwhile, is produced by the Yekatit Paper Converting. A number of smaller, private printing presses have also traditionally operated.[81/]

The major products of the pulp and paper industry are printing and writing paper, duplicating and typing paper, exercise books, tissue and sanitary paper, and corrugated boxes. The enterprises in the printing and publishing industrial branch provide printing services. The production capacities employed to manufacture these products are given in Table III.17.

Most of the above products are manufactured by state enterprises. Some products such as exercise books, tissue and sanitary paper and printing service are produced or delivered both by private and public enterprises. There are a lot of printing presses and publishers in the private sector. However, the enterprises in the private sector are mostly small-scale plants. The state-owned enterprises are relatively of much higher capacity. The major enterprises in the subsector are Ethiopian Pulp and Paper Share Co., Yekatit Paper Converting Enterprise, Artistic Printers, Berhanina Selam Printing Press, Bole Printing Press, and Commercial Printing Press. All the major enterprises are owned by the State.

Table III.17. Production capacities of main products of the pulp and paper, printing and publishing industries, 1992/93

Product	Unit of measure	Annual production capacity
1. Printing and writing paper	Tonnes	25,000
2. Duplicating and typing paper	Tonnes	8,100
3. Exercise books	Thousand pieces	40,000
4. Tissue and sanitary paper	Thousand bundles	11,000
5. Corrugated boxes	Tonnes	22,000
6. Printing (service)	Thousand birr	92,000

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

With the exception of Ethiopian Pulp and Paper Share Co., all other major enterprises are located in Addis Ababa. The capacities, location and employment of the major enterprises are given in Table III.18.

Fig. III.F. Production capacities of selected pulp and paper products, 1992/93

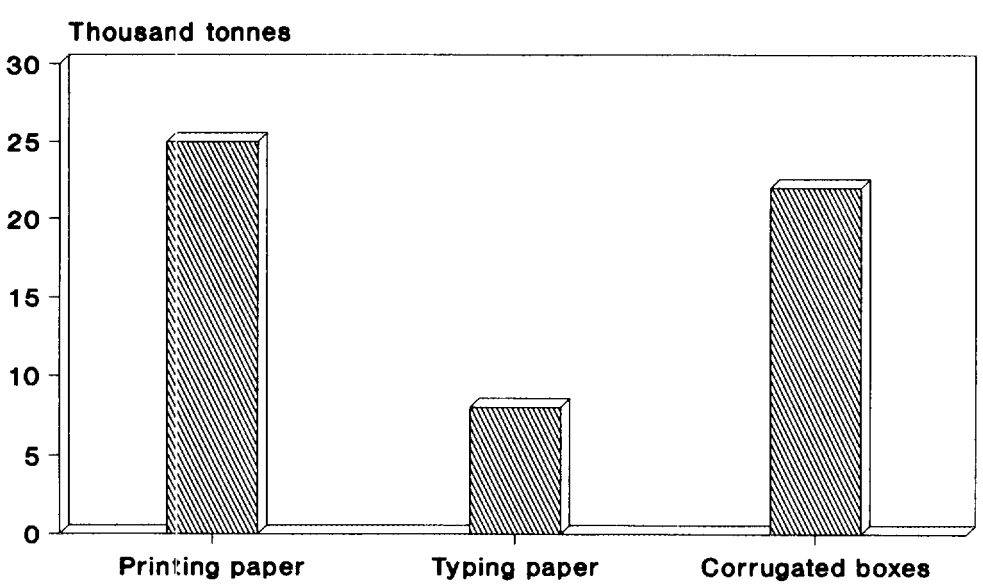


Table III.18. Major enterprises in the pulp and paper, printing, publishing and related works industries, 1992/93

Name of enterprise	Location	Employment	Annual capacity
1. Ethiopian Pulp & Paper Share Co.	Wonji, close to Nazareth town, 100 km south east of Addis Ababa	740	9,500 tonnes
2. Yekatit Paper Converting Enterprise	Addis Ababa	..	..
3. Artistic Printers	Addis Ababa	..	18 million birr
4. Berhanina Selam Press	Addis Ababa	..	37 million birr
5. Bole Printing Press	Addis Ababa	440	14 million birr
6. Commercial Printing Press	Addis Ababa	..	16 million birr

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

The resource base

The major raw materials required are pulp, boxing paper, waste paper chemicals, and printing and writing paper. Pulp is totally imported, while paper is partly locally produced. A small quantity of boxing paper (corrugated cardboard) and chemicals are also locally produced. The quantity of major raw materials consumed by the subsector during the 1992/93 fiscal year is given in Table III.19.

Table III.19. Major raw materials consumed by the pulp and paper, printing, publishing and related works industries, 1992/93

Major raw material	Unit of measure	Quantity consumed		
		Local	Import	Total
1. Pulp	Tonnes	-	8,910	8,910
2. Boxing paper	Tonnes	68	1,093	1,161
3. Waste paper	Tonnes	-	-	-
4. Chemicals	Tonnes	10	6,537	1,124
5. Paper	Tonnes	4,260	6,537	10,797

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

Recent trends

A moderate increase of about 37 per cent is observed in the total value of production during the five years between 1988/89 to 1992/93. The major increase is due to the printing and publishing industry whose production value has changed significantly during the recent years mainly due to increase in prices and the quantity of printed media.

There are no export production in the subsector. The present production could not even satisfy the local demand.

Critical constraints

The major constraints in the subsector are the unavailability of most of the raw materials on the local market and the escalation of prices of imported items. Local production of paper is below 50 per cent of the total consumption, and, therefore, a large quantity is imported. As this requires a substantial amount of foreign currency, acquiring sufficient quantity of paper is often a problem.

Prospects for further development

All economic and social sectors require paper and paper products and the services of the printing industry. The printing and publishing industry itself is a major consumer of paper. Large quantities are consumed by the horticultural farms for packaging purposes. The educational sector requires exercise books and paper for writing, typing, duplicating and printing. Products such as tissue paper and sanitary napkins, which are required for personal hygiene, are similarly in high demand. With the high growth rate (more than 3 per cent per annum) of the population coupled with the increasing rate of urbanization and industrialization, it is expected that the demand for the products and services of the subsector would grow at a fast rate.

Ethiopia had a lot of woodland, although what remains of it at present is very small. Still there exists the possibility for recovering this resource partly through large scale or commercial foresting. Trials in forestry show that the climate is so favourable that some trees that may take 50 years to grow to maturity in Europe can reach the same level within only 20 years. Thus a good potential exists for domestic production of pulp which is a very essential raw material for the subsector.

F. PETROLEUM REFINING

Oil exploration has been carried out sporadically in the Ogaden region of Ethiopia since the 1930s. During the 1970s, Americans undertook exploratory drilling in the region, followed by Soviet geologists during the 1980s - though traces of oil were found, they were not of the size to be commercially-exploitable. Nevertheless, geologists are still cautiously optimistic,[82/] and an oil concession was granted in the Afar region (in the northeastern part of the country) in 1994.[83/] Under the terms of this agreement, Afar Oil Exploration of the United States has a six-year contract to search 23,206 square kilometres. The Ethiopian Minister of Petroleum Development said in February 1995 that an international oil company was also seeking exploration rights in the western Gambela region. In 1994, moreover, the International Petroleum Corporation reported it was involved in regional studies on this huge block on the border with southern Sudan. The Minister also announced that studies were being planned for the Wereilu region in northern Ethiopia.[84/] Hence, activity is brisk with respect to oil exploration.

There is, meanwhile, also potential for natural gas production. In 1987, the government had announced the discovery of a deposit with an estimated reserve of 25 billion cubic metres in Hararge. Although the size made the find attractive, the deposit's remote location made it somewhat more daunting. Nevertheless, a feasibility study was prepared.[85/] More recently, the World Bank has invested about $150 million to develop the Calub gas field (which is located in the southern extreme of the country).[86/] Finally, the government disclosed, in June 1995, the discovery of a natural gas deposit of 68,000 million cubic metres in the Gode area.[87/]

These various developments bode well for the future, though at present, Ethiopia continues to be dependent upon foreign sources of oil and gas. In addition, with the independence of Eritrea, Ethiopia has also become entirely dependent upon imported petroleum products - most of which are now obtained from the refinery in Assab (Eritrea).[88/]

G. CHEMICAL AND ALLIED INDUSTRY

Background

There were 12 publicly-owned establishments in the chemical industry in 1992/93. They employed 2,824 people, operated at 67 per cent capacity and contributed 9.7 per cent to the national value of industrial production.[89/] The following sections briefly examine the major products of this sector.

Soap: There are three soap producing factories: the Gulelie Soap Factory, the Nazereth Soap Factory (both of which produce primarily laundry soap) and the Repi Soap Factory (which produces powder soap, bleaching liquid and detergent). Production increased dramatically between 1991/92 and 1992/93, to such an extent that soap accounted for 22 per cent of the sector (as compared with 15 per cent and 8 per cent the previous two years).[90/]

Carbon dioxide: Production of carbon dioxide increased dramatically during the mid-1980s, in response to greater demand from the beverage industry. Production figures went from 480 tonnes in 1985/86 to 788 tonnes in 1989/90. In 1992/93, the main reported producers were the Meta Brewery and the Addis Gas and Plastic Crates Factory (Ethio-Gas and Plastic Factory).[91/]

Oxygen: Oxygen is primarily produced at the Chora Gas Products Factory. Output peaked at 186,000 cubic metres in 1987/88 and has been relatively constant - varying between 148,000 cubic metres and 170,000 cubic metres - since then.[92/]

Paints, varnishes and lacquers: Paints are primarily produced at the Tsedey Paints (No. 1 and 2) Factory (Nefas Silk Paint and Oil Paint) in Addis Ababa. The value of production has grown in recent years. Other products - for example, shoe polish and floor wax - are produced at the Chora Gas Products Factory (also located in the capital).[93/] The Kokeb Paints Factory, meanwhile, is a privately-operated enterprise which also operates in the sector.

Technical overview

The main products manufactured by the chemical and allied industry are soap, carbon dioxide, oxygen, paints, capsules, tablets, antibiotics, syrup, ointment, varnishes and lacquers, tyres and tubes, thermoplastic goods, battery cells, foam and candles. The domestic production capacities employed to manufacture these products are shown in Table III.20.

Products such as carbon dioxide, oxygen, tyres and tubes, pharmaceutical, medicinal chemicals, and alkyd resin are exclusively manufactured by the public sector state enterprise. In terms of capacity, most of the privately owned enterprises are of small scale in size.

The few major enterprises in the subsector, including those under commissioning are Addis Tyre Share Co., Gulelle Soap Factory, Repi Soap (Detergent) Factory, Alkyd Resin Plant, Ethiopian Pharmaceutical Manufacturing Plant, Ethioplastics, Addis Gas & Plastic Crates Factory, Awash Melkasa Aluminum Sulphate and Sulphuric Acid Plant and Zeway Caustic Soda Plant. The last two plants are newly established plants which are being commissioned to start production. All of the major enterprises are owned by the State.

Most of the enterprises in the subsector, including the major ones, are located in Addis Ababa. Among the major plants only Melkasa Sulphuric Acid Plant and Zeway Caustic Soda Plant are located out of Addis Ababa in the towns of Melkasa and Zeway, respectively. These two towns are located in the south east and south of Addis Ababa at distances of 115 and 163 kilometres respectively. Plant capacities, employment and location of the major enterprises are given in Table III.21.

Table III.20. Production capacities of main chemical products, 1992/93

Product		Unit of measure	Annual production capacity
1.	Soap	Tonnes	25,000
2.	Carbon dioxide	Tonnes	1,400
3.	Oxygen	Cubic metres	250,000
4.	Paints	Thousand litres	3,200
5.	Varnishes and lacquers	Thousand litres	540
6.	Tyres and tubes	Pieces	180,000
7.	Thermoplastic goods	Tonnes	1,000
8.	Battery cells	Thousand pieces	13,500
9.	Foam	Cubic metres	30,000
10.	Candles	Tonnes	500
11.	Alkyd resin	Tonnes	1,100
12.	Capsules	Thousand pieces	343,000
13.	Tablets	Thousand pieces	700,000
14.	Antibiotics	Thousand pieces	13,000
15.	Syrup	Thousand litres	260
16.	Ointment	Tonnes	300

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93*, Addis Ababa, August 1994.

Fig. III.G. Production capacities of selected chemical products, 1992/93

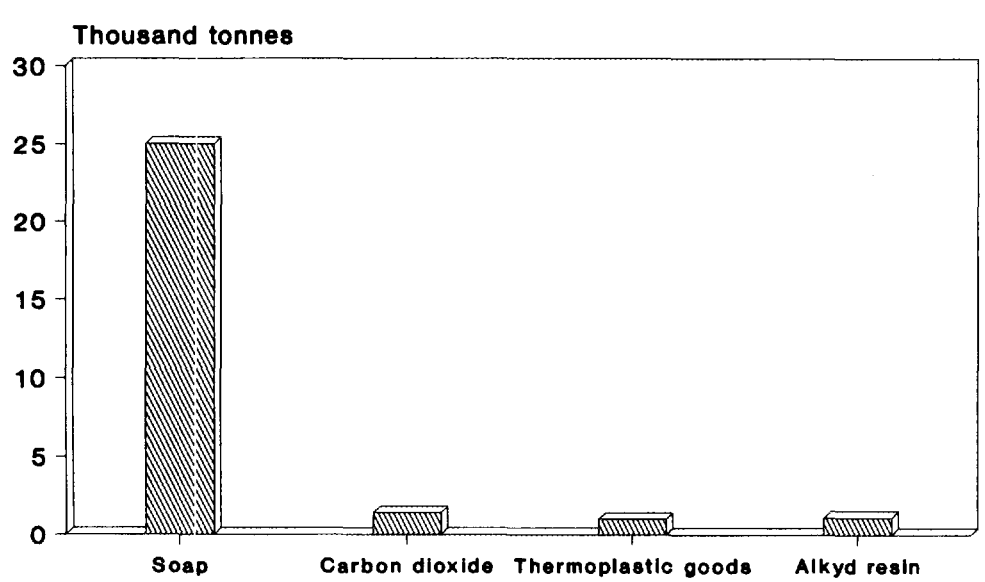


Table III.21. Basic information on the major enterprises in the chemicals subsector, 1995

	Name of enterprise	Location	Annual capacity
1.	Addis Tyre Share Co.[a/]	Addis Ababa	200,000 pieces of tyres
2.	Gulale Soap Factory	Addis Ababa	7,000 tonnes laundry soap
3.	Repi Soap (Detergent) Factory	Addis Ababa	2,400 tonnes detergent
4.	Ethiopian Pharmaceutical Manufacturing Plant	Addis Ababa	700 million tablets, 340 million capsules, 26 million pieces of ampules and antibiotics
5.	Ethioplastics	Addis Ababa	900 tonnes polyethlene products
6.	Addis Gas and Plastic Crates	Addis Ababa	500,000 pieces of crates 1.4 million kilogrammes CO_2 gas
7.	Awash Melkasa Aluminum Sulphate & Sulphuric Acid Plant[b/]	Melkasa	10,000 tonnes sulphuric acid 14,000 aluminum sulphate 5,000 tonnes oleum
8.	Zeway Caustic Soda Plant[b/]	Zeway	10,000 tonnes, at 45.5 per cent concentration
9.	Alkyd Resin Plant	Addis Ababa	1,100 tonnes, alkyd resin

Source: Based on information obtained from the respective enterprises.

a/ The company is under expansion, capacity and employment given are for the expanded plant.
b/ New plants which are being commissioned to start production.

The resource base

The major raw materials required by the subsector are caustic soda, natural and synthetic rubber, sodium compounds, tallow and fatty acid, and active pharmaceutical ingredients. A large quantity of these materials are imported at the local supply is of a small quantity and in some cases non-existent. The quantities of major raw materials consumed by the subsector during 1992/93 fiscal year are given in Table III.22.

Table III.22. Major raw materials consumed by the chemical subsector, 1992/93

		Unit of measure	Quantity consumed		
			Local	Import	Total
1.	Caustic soda	Tonnes	324	1,179	1,503
2.	Natural and synthetic rubber	Tonnes	-	2,536	2,536
3.	Sodium compound	Tonnes	1,186	293	1,479
4.	Tallow	Tonnes	638	2,958	3,596
5.	Fatty acid	Tonnes	-	2,744	2,744

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93*, Addis Ababa, August 1994.

Recent trends

The gross value of production of the subsector has doubled during the five year period between 1988/89 and 1992/93. The gross value was Br131 million in 1988/89 and increased to Br249 million in 1992/93. However, this sharp increase is not due to a corresponding increase in the volume of production. It is mainly due to increase of prices as a result of the devaluation of the birr.

There is no export production in the subsector at present. However, as the newly established chemical plants become operational and start to look outwards, it is expected that there will be some production for export.

Major investments are being undertaken on new plants and the expansion of the existing ones. As mentioned above, Awash Malkasa Aluminum Sulphate and Sulphuric Acid Plant and Zeway Caustic Soda Plant are under commissioning. Addis Tyre Expansion Project is also close to completion. In addition, a pesticide formulation plant and a pharmaceutical plant are under construction. Basic information on the major projects in the subsector indicating location, investment magnitude and employment is given in Table III.23.

Table III.23. Investment projects in the chemical subsector, 1995

Name of project	Location	Investment (Thousand birr)	Employment
1. Awash Melkasa Aluminum Sulphate & Sulphuric Acid Plant	Awash Melkasa Town	55,000	300
2. Zeway Caustic Soda Plant	Zeway Town	47,000	400
3. Adami-Tullu Pesticides Formulation Plant	Adami-Tullu Town	12,000	58
4. Addis Tyre Expansion	Addis Ababa	97,000	160
5. Adigrat Pharmaceutical Plant	Adigrat, Tigray Region	..	..

Source: Based on information obtained from the respective project offices.

Two of the investment projects, Awash Melkasa Aluminum Sulphate and Sulphuric Acid Plant and Zeway Caustic Soda Plant, produce basic chemicals such as sulphuric acid and caustic soda which are input materials for the chemical industry. It is expected that the establishment of these plants would bring significant structural change and production capacity to the subsector.

Critical constraints

A critical lack of most of the input materials on the local market is the major problem of the enterprises in the subsector. Shortage of working capital to finance purchase and stocking of imported items is also a major problem of most of the small and medium enterprises in the subsector.

Prospects for further development

The basic sources of raw materials for the chemical industry include fossil fuels such as crude oil, natural gas and coal; non metallic industrial minerals such as limestone, sodium chloride, potassium chloride, pyrite and phosphate rocks; agricultural products such as maize (for starch and its derivatives), and biomass; and forestry products such as rubber tree. The potential exists for developing most of these materials locally. However, mineral exploration has not yet been widely conducted in the country. Based on the existing limited reconnaissance studies, it is expected that most of the minerals required for industrial processing could be developed locally.

The agricultural and forestry development potential of Ethiopia is also very high. In addition, there is a good supply of electric power in many parts of the country. Cheap and semi-skilled labour is abundantly available. Thus there are a number of favourable factors which are conducive for the development of the subsector. Moreover the use of chemicals in the agriculture and other

sectors of the economy is increasing at a very high rate. This indicates that the size and growth of the domestic market is quite substantial.

H. NON-METALLIC MINERALS (BUILDING MATERIALS)

Background

Cement is by far the most important construction material manufactured in Ethiopia, accounting for 87 per cent of value in the 'non-metallic' manufacturing sector. Of this, the vast majority is produced at the Mugher Cement Factory. This facility, which came into production in 1983 with financial assistance from East Germany, produced 343,918 tonnes in 1992/93. An additional 33,167 tonnes was produced at the Addis Ababa Cement Factory - this facility, which was established in 1964, has a nominal capacity of 70,000 tonnes per year.[94/]

Bricks, meanwhile, are produced at the Burayu Bricks Factory and the Ethio Bricks Factory (each producing about 9 million annually), while marble is produced at the Ethio Marble Industry. In the 'non-metallics' industrial sector as a whole, there were nine publicly-owned establishments - three in Oromiyaa and six in Region 14 - which together employed 4,415 people in 1992/93, operated at 100 per cent capacity and contributed 7.4 per cent to the total value of industrial production.[95/]

The above are only the publicly-owned operations in the sector. The construction industry is relatively unique in Ethiopia, given the high rate of private sector participation, even during the Derg regime. Chole, for example, states that the state accounted for only 48.4 per cent of all activity.[96/] Keith Griffin further reports that the 'construction sector has about 160 small-scale building contractors and for policy purposes should be thought of in conjunction with small-scale manufacturing.'[97/]

Technical overview

The non-metallic minerals industry consists of mainly the building materials industrial branch which manufactures cement and cement products, lime, structural clay products, and glass and glass products. Recently, the production of ceramic products such as tableware, sanitary ware and wall tiles has started in a newly established plant. The production capacities employed to manufacture these products are given in Table III.24.

Table III.24. Domestic production capacities of main products of the non-metallic mineral industry, 1992/93

Product		Unit of measure	Annual production capacity
1.	Cement	Tonnes	670,000
2.	Cement blocks and tubes	Thousand pieces	3,400
3.	Cement floor tiles	Square metres	221,000
4.	Bricks of clay	Thousand pieces	31,000
5.	Lime	Tonnes	5,300
6.	Glasses	Thousand pieces	1,400
7.	Glass bottles	Thousand pieces	17,000
8.	Ceramic tiles and wares	Tonnes	3,000 wall tiles
		Tonnes	2,000 sanitary ware
		Tonnes	1,000 table wares

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

Most of the products in the industry are manufactured by state enterprises. Only cement blocks, cement tubes and cement floor tiles are manufactured in large quantities by numerous small scale producers in the private sector. The major enterprises in the subsector are Muger Cement Factory, Addis Ababa Cement Factory, Addis Ababa Glass Factory, and Tabor Ceramics Factory. All of these major plants are owned by the State.

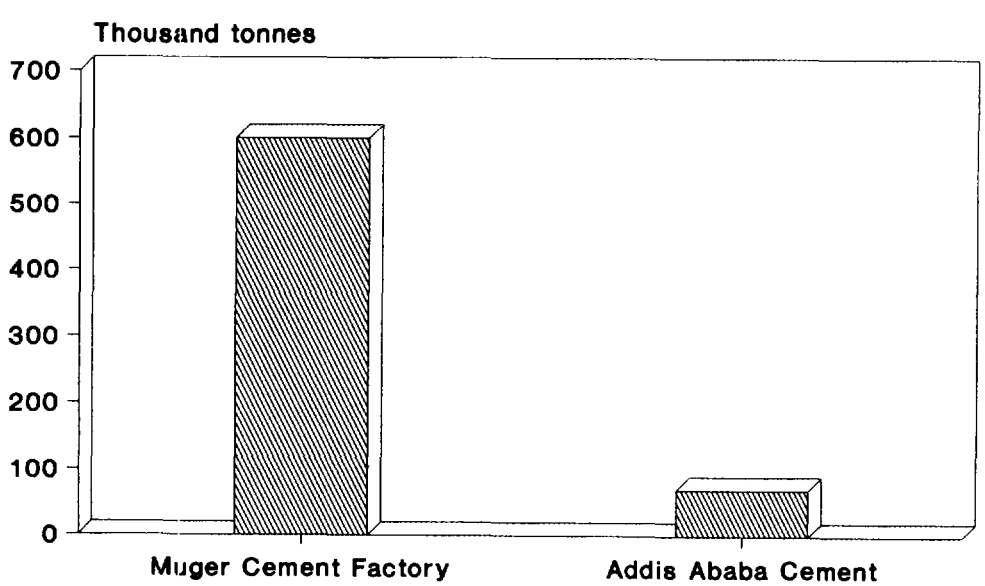
Most of the enterprises in the subsector are located in Addis Ababa. Among the major enterprises, Muger Cement Factory and Tabor Ceramics Factory are located out of Addis Ababa in the western and southern parts of the country respectively. Annual capacities, location and employment level of the major enterprises are given in Table III.25.

Table III.25. Major enterprises in the non-metallic industry, 1995

Name of enterprise	Location	Employment	Annual capacity
1. Muger Cement Factory	Mugar, 105 kms west of Addis Ababa	800	600,000 tonnes cement
2. Addis Ababa Cement Factory	Addis Ababa	600	70,000 tonnes cement 400,000 pieces of asbestos sheet
3. Ethio & Burayyu Bricks Factory	Addis Ababa	470	7.5 million pieces
4. Addis Ababa Glass & Bottles Factory	Addis Ababa	300	17 million bottles 1.42 million glasses
5. Tabor Ceramics	Awasa, 230 kms, south of Addis Ababa	650	3,000 wall tiles 2,000 sanitary wares 1,000 table wares

Source: Based on information obtained from the respective enterprises.

Fig. III. H. Production capacities of two cement factories, 1995



The resource base

The major raw materials needed are limestone, gypsum, kadin, gravel, cullet, clay, cement, marble, pumice, sand, silica sand and soda ash. All the major raw materials are locally available. It may be noted here that this is the only industrial subsector where all major raw materials are locally available. The quantity of major raw materials consumed during the 1992/93 fiscal year is shown in Table III.26.

Table III.26. Major raw materials consumed by the non-metallic minerals industry, 1992/93

Major raw material	Unit of measure	Quantity consumed		
		Local	Import	Total
1. Limestone	Tonnes	561,948	-	561,948
2. Gypsum	Tonnes	30,182	-	30,182
3. Pumice	Cubic metres	4,943	-	4,943
4. Sand	Cubic metres	12,589	-	12,589
5. Silica sand	Tonnes	1,910	-	1,910
6. Soda ash	Tonnes	529	-	529
7. Gravel	Cubic metres	2,473	-	2,473
8. Cullet flint	Tonnes	3,557	-	3,557
9. Clay	Cubic metres	126,284	-	126,284
10. Cement	Tonnes	6,240	-	6,240
11. Marble	Tonnes	229	-	229

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93*, Addis Ababa, August 1994.

Recent trends

The gross value of production of the subsector was Br88 million in 1988/89. After five years, this rose to Br128 in 1992/93. The increase in the gross value of production is mainly attributed to the increase in the prices of the products.

There is no export production in the subsector at present. However, the newly established ceramics plant is expected to start export production as soon as it has established itself in the local market.

There are only few investments and expansion schemes presently under way. A major investment is under implementation to increase the production of cement in Tigray Region in the northern part of the country.

Critical constraints

Low capacity utilization is a major problem among many of the enterprises in the subsector. This is mainly due to two reasons. The first reason is the old age of plant and equipment in the subsector. The second reason is the sharp fluctuation of demand stemming from the cyclical nature of the construction industry. The plant and equipment of enterprises such as Addis Ababa Cement Factory and Senkelle Lime Plant are very old and are badly in need of renovation.

Prospects for further development

A number of studies conducted so far show that there are a lot of mineral deposits in the country that could be used for the development of various non-metallic minerals for domestic and export markets. In particular, it is reported that limestone, the major raw material required for the

production of cement and lime, is found in almost every region of the country in abundant quantities.

There is also a good supply of cheap semi-skilled labour that can be easily trained. The accumulated managerial and technical knowledge in the production of items such as lime, cement, cement-made products and bricks is quite significant.

Urban centres and construction projects are the major consumers of the products of the non-metallic industry. Urbanization is growing at a high rate in the country. Construction projects are also starting to show high rates of growth with increasing liberalization of the economy.

Given the increase in tourism - both that which has already been realised and that which is expected to occur - there will be greater demand for new buildings (for example, hotels and recreation facilities). Supply, moreover, could be increased. There has traditionally been a bottleneck in construction, primarily caused by problems with the transportation infrastructure. Overcoming these would open up even greater opportunity for the industry. It would also bring benefits by replacing what now has to be imported. Additionally, the elements of a construction industry could be created based on local needs and local supplies: a small quarry, a brick kiln, a sawmill or a cement plant.[98/]

At present, the range of non-metallic mineral products used outside the construction sector is extremely limited. Glass is the most important of these products - 'bottles' contributed 2.5 per cent to the total value of the 'non-metal industry' in 1992/93.[99/]

Since there is a substantial demand for non-metallic mineral products in the Common Market for Eastern and Southern Africa (COMESA), of which Ethiopia is a member, there exists a potential for exporting products of the non-metallic mineral industry to the member countries of the Region.

I. BASIC METAL AND IRON AND STEEL

The industrial branches categorized under this subsector are iron and steel, non-ferrous metals, and machinery and equipment manufacturing (engineering) industries. Iron and steel, and non-ferrous industries are almost non- existent in Ethiopia. There is only one enterprise engaged in manufacturing iron bars from steel scraps and billets. A few steel foundries operate in connection with manufacturing such items as spare parts and machine units.

Regarding non-ferrous metals such as aluminum, brass and bronze, the production that exists is only of very small (cottage industry) scale. Moreover, it is based on scrap collection and remelting in cupola furances. Thus, there is no significant non-ferrous metals production as such.

On the other hand, much industrial activity is under way in light engineering including metal working, parts manufacturing and vehicle assembly. Products manufactured by the enterprises in the light engineering branch include nails, wires, corrugated/flat iron sheets, umbrellas, cans, sickles, pipes, tractors, trucks, medium buses, pumps, and various spare parts and tools. The production capacities employed to manufacture the items mentioned are given in Table III.27.

All the main products, except trucks and medium buses, are manufactured by state enterprises. The products manufactured by the private sector are mainly water tanks, doors, windows and furniture made from fabricated steel products. The private sector also manufactures various types of machinery and equipment, including bakeries, oil mills and soap making plants. However, all of these are produced in small workshops on job-order basis and do not constitute significant production volume.

Table III.27. Production capacities of main products of basic metals and engineering industries, 1992/93

Product		Unit of measure	Annual production capacity
1.	Reinforcement bars	Tonnes	15,000
2.	Nails	Tonnes	800
3.	Wires	Tonnes	3,400
4.	Corrugated/flat iron sheets	Tonnes	21,000
5.	Umbrellas	Thousand pieces	700
6.	Cans	Thousand pieces	3,000
7.	Sickles	Thousand pieces	700
8.	Pipes	Tonnes	6,300
9.	Tractors	Number	1,000
10.	Trucks and medium buses	Number	600 to 700
11.	Pumps	Pieces	400
12.	Various spare parts and tools		
	Industrial spare parts	Tonnes	4,500
	Hand tools	Thousand pieces	1,500
	Cuttlery	Thousand pieces	600

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93*, Addis Ababa, August 1994.

The major enterprises in the subsector are Ethiopian Iron and Steel Foundry, Akaki Spare Parts and Hand Tools Factory, Kalitti Metal Factory, Akaki Metal Factory, Nazareth Tractor Factory, Akaki Pump Factory, and Automotive Manufacturing Company of Ethiopia (AMCE). With the exception of AMCE, which is jointly owned by the Government of Ethiopia and the FIAT company of Italy, all the major enterprises are owned by the State.

Most of these enterprises are located in Addis Ababa and its suburban town of Akaki. The Nazareth Tractor Factory is situated in Nazareth Town, 100 kms south-east of Addis Ababa. Annual capacities, location and employment level of the major enterprises are given in Table III.28.

Fig. III.I. Production capacities of selected metal products, 1992/93

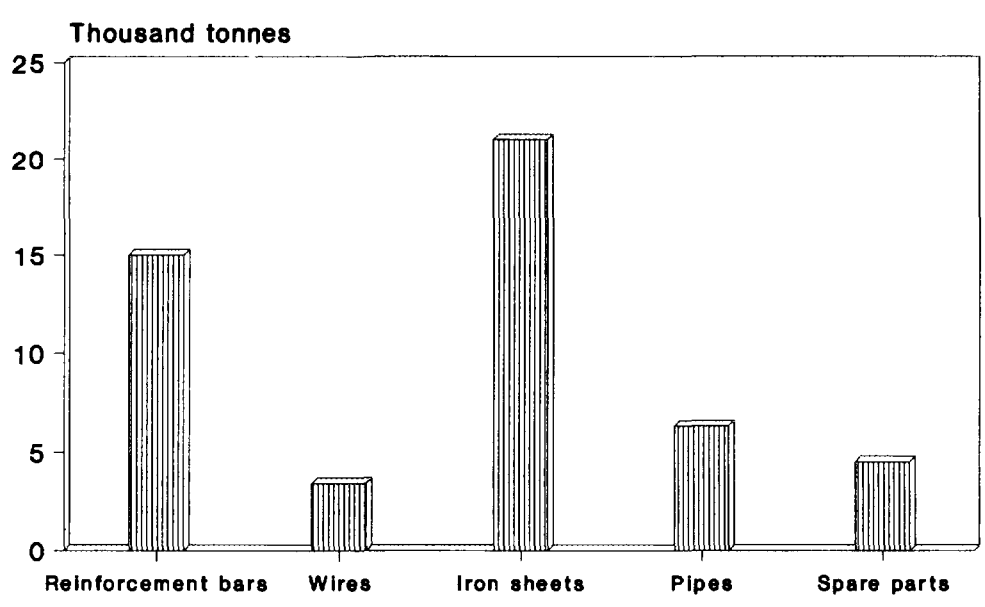


Table III.28. Major enterprises in the basic metals and engineering industries, 1995

Name of enterprise	Location	Employment	Annual capacity
1. Ethiopian Iron and Steel Foundry	Akaki Town, 25 km south of Addis Ababa	480	15,000 tonnes (rolling mill)
2. Akaki Spare Parts and Hand Tools Factory	Akaki Town	980 at full capacity	4,500 tonnes spare parts 1.5 million hand tools 0.6 million cutlery
3. Kaliti Metal Factory	Addis Ababa	350	60,000 tonnes steel products 1,600 hammer mills
4. Akaki Metal Factory	Akaki Town	250	21,000 tonnes corrugated iron sheet 12,000 tonnes pipes
5. Nazareth Tractor Factory	Nazareth Town	150	1,000 tractors
6. Akaki Pump Factory	Akaki Town	175	1,500 pieces of centrifugal pumps and 330 hand pumps
7. AMCE	Addis Ababa	240	600-700 trucks and buses

Source: Based on information obtained from the respective enterprises.

The resource base

The major raw materials consumed are steel billet, scrap iron/steel, steel sheets, wire rod, zinc, aluminum, tin plate and galvanized coils. Except scrap iron/steel, all the major raw materials are imported from abroad. The quantity of major raw materials consumed during 1992/93 fiscal year is shown in Table III.29.

Table III.29. Major raw materials consumed by the basic metals and engineering industries, 1992/93

Major raw material	Unit of measure	Quantity consumed		
		Local	Import	Total
1. Steel billet	Tonnes	-	5,900	5,900
2. Scrap iron/steel	Tonnes	700	-	700
3. Steel sheets	Tonnes	-	6,374	6,374
4. Wire rod	Tonnes	-	2,500	2,500
5. Zinc	Tonnes	-	302	302
6. Aluminum	Tonnes	-	126	126
7. Tin plate	Thousand sheets	-	1,058	1,058
8. Galvanized coils	Tonnes	-	1,546	1,546

Source: C.S.A., *Results of the Survey of Manufacturing and Electricity Industries 1992/93,* Addis Ababa, August 1994.

Recent trends

The gross value of production of the subsector showed sharp decrease between the years 1989/90 and 1991/92. However, it significantly increased in 1992/93 though did not fully recover to 1988/89 level.

So far there is no significant export production in the subsector, although enterprises such as Akaki Spare Parts and Akaki Pump Factory could export some of their products to the neighboring countries and other member countries of COMESA.

There are no large investment projects being undertaken in the subsector. The only significant investment project is a foreign sponsored project approved by the Investment Office of Ethiopia in 1994 which envisages the establishment of light vehicles assembly plant. The total investment cost of the project is about Br24 million. There is also a Government plan to install a steel rolling mill of 90,000 tonnes per annum capacity in one of the existing enterprises which were originally designed to produce military hardware and are now being converted to produce civilian products.

The institutional infrastructure of this subsector has shown considerable development with the establishment of Engineering Design and Tools Centre in 1994. The objectives of this institution are tool design and tool making, equipment design and prototype manufacturing, and provision of training to tool and equipment designers and manufacturers. The Government has also recently established another institution called Basic Metal and Engineering Industry Bureau under the Office of the Prime Minister with a mandate to follow up and cater for the development of the subsector.

Constraints

Working capital and low capacity utilization are the major problems of this subsector. The problem of working capital, mainly for importing raw materials, has been a result of the devaluation of the birr. Low capacity utilization might have been caused due to competition from imported items and lack of sufficiently large domestic market for the products of the subsector.

Prospects for further development

Mineral explorations conducted some years back have shown that there is about 58 million tonnes of iron ore deposit containing 41.6 per cent iron with 16.7 per cent titanium in an area called Bikilal in the western part of the country. A deposit of about 200 million tonnes of coal has also been explored at a place called Delbi in the south western part of the country. In addition, large quantities of natural gas deposit at Kalub in the Ogaden, south-eastern part of the country, are now ready for use.

Thus there is a good potential for developing iron and steel industry. Moreover, there is an easily trainable manpower. The availability of design and training institutions such as Engineering Design and Tool Center is also a favourable factor for the development of engineering industries.

NOTES TO CHAPTER III

1/ *World Resources 1994-95,* Oxford University Press for the World Resource Institute, Oxford, 1994.

2/ Ethiopian Statistical Abstract 1992, Central Statistical Authority, Addis Ababa, p. 63.

3/ *Ibid.*

4/ *Ibid.*

5/ *Ibid.*

6/ *Ibid.*

7/ *Ibid.*

8/ *FAO Yearbook, Production,* Vol. 47, Food and Agricultural Organization, Rome, 1994.

9/ *Ethiopia: New Directions of Industrial Policy,* Vienna, UNIDO, 1991, p. 133.

10/ National Bank of Ethiopia, *Quarterly Bulletin*, Addis Ababa, Vol. 9, No. 4, Fourth Quarter, 1993/94, 1995, p. 79.

11/ *Ibid.*

12/ *FAO Yearbook, Production, op. cit.*

13/ National Bank of Ethiopia, *op. cit.*, p. 79.

14/ *Ethiopia: New Directions of Industrial Policy, op. cit.*, p. 133.

15/ National Bank of Ethiopia, *op. cit.*, p. 79.

16/ *FAO Yearbook, Production, op. cit.*

17/ National Bank of Ethiopia, *op. cit.*, pp. 70 and 78.

18/ *FAO Yearbook, Production, op. cit.*

19/ Parker, Ben, *Ethiopia: Breaking New Ground,* Oxfam, Oxford, 1995, p. 37.

20/ Griffin, Keith (ed.), *The Economy of Ethiopia,* Machmillan, London, 1992, p. 222.

21/ Griffin, *op. cit.*, p. 80.

22/ *Ibid.*

23/ *Ethiopia: New Directions of Industrial Policy, op. cit.*, p. 135.

24/ The FAO estimates that the amount of land devoted to coffee fell from over 450,000 hectares in 1980 to an estimated 295,000 hectares in 1993 (*FAO Yearbook, Production, op. cit.*).

25/ Much of the coffee output was marketed by the Coffee Marketing Corporation (CMC), which was under the control of the Ministry of Coffee and Tea Development, though domestic demand was supplied partly by private traders. The CMC effectively secured the high-quality coffee for export, though it did not always pay the highest prices for it.

26/ Griffin, *op. cit.*, p. 80.

27/ "There's a whole lotta coffee in ... Ethiopia", *Financial Times,* 24 September 1994, p. 4.

28/ "Ethiopia", *African Economic Digest,* 10 April 1995, p. 36.

29/ *Ibid.*

30/ *Facts about Public Manufacturing Enterprises, Trade and Tourism,* Industry and Trade Department, Addis Ababa, March 1995, p. 6.

31/ Ethiopian Statistical Abstract 1992, Central Statistical Authority, Addis Ababa, p. 92.

32/ *Facts about Public Manufacturing Enterprises, Trade and Tourism, op. cit.*

33/ Ghelawdewos Araia, *Ethiopia: The Political Economy of Transition,* University Press of America, New York, 1995, p. 49.

34/ *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C.,* (1989/90 G.C.), Central Statistical Authority, Addis Ababa, April 1993.

35/ *FAO Yearbook, Production, op. cit.*

36/ Molasses is the second-most important sugar product. Production of this good, however, has also fallen -- from approximately 60,000 tonnes a year in the late 1980s to 46,238 tonnes in 1992/93 (*Facts about Public Manufacturing Enterprises, Trade and Tourism, op. cit.).*

37/ *Facts about Public Manufacturing Enterprises, Trade and Tourism, op. cit.*

38/ National Bank of Ethiopia, *op. cit.*, pp. 71 and 79.

39/ "State to Compensate for Mengistu's Confiscations", *African Economic Digest,* 13 February 1995, p. 33.

40/ *Facts about Public Manufacturing Enterprises, Trade and Tourism, op. cit.*, p. 52.

41/ *Ethiopia: New Directions of Industrial Policy, op. cit.*, p. 62.

42/ *Facts about Public Manufacturing Enterprises, Trade and Tourism, op. cit.*

43/ Ethiopian Statistical Abstract 1992, *op. cit.*, p. 88. This is the only sector within food manufacturing that had more people employed in the private sector than in the public sector (1989/90).

44/ *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1989/90 G.C.), op. cit.*

45/ *Facts about Public Manufacturing Enterprises, Trade and Tourism, op. cit.*, p. 52.

46/ *Ibid.*

47/ *Results of the Survey of Manufacturing and Electricity Industries 1982 E.C. (1989/90 G.C.), op. cit.*, p. 99.

48/ *Ethiopian Statistical Abstract 1992, op. cit.*, p. 63.

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