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GOVERNMENT OF PEOPLE'S DEMOCRATIC REPUBLIC OF ETHIOPIA

THE MINISTRY OF INDUSTRY

NATIONAL PROGRAMME FOR THE SECOND INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA (IDDA II)

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CHAPTER I

THE IDDA PROGRAMME

1.1 Need for the Industrial Development Decade for Africa Programme (IDDA)

The concept of development decade had emerged at the United Nations, as a whole, to promote active programmes of development for the third world that would halt the widening of the gap between developed and developing nations. The United Nations Third Development Decade, which began in 1981, was based on the assumption that a reform of the international economic order was essential for the health of both developing and developed countries. In instructions for the formulation of regional strategies for that Decade the executive Secretaries of the United Nations Regional Commissions were asked to identify or propose regional components of a new international economic order. The Lagos Plan of Action was one outcome of this effort.

Accordingly, the concepts and purposes of the IDDA were determined by factors such as the following:

a) recognition of the failure or likely failure of cures for the weakening North-South engine of growth;

b) growing conviction among policy makers, economic planners and publicists in Africa that no region so well endowed with natural resources could justify the growing poverty of its population and its own increasing dependence on the weakening North-South engine of growth;

c) persistence of at least three great structural weaknesses: dependence on a few primary export commodities; dependence on broadly the same markets for selling primary commodities and for buying capital and consumer goods and services; and the persistence of enclaves, semi-enclaves and disfunctional relations within national economies;

d) efforts launched by governments to initiate processes of industrial development in the mid- 1960s and early 1970s did not seem to have been self-sustaining because these industries were light and also heavily dependent on imported and increasingly expensive factor inputs;

e) realization that developed countries not only produced goods and services primarily to meet domestic demand and depended on their domestic markets for the consumption of a very high share of national production but that they also depended on domestic sources for an even higher share of factor input supply;

f) initiatives being taken by developing countries in other regions in process of industrialization and successfully carrying them through, including the development of the capital goods industries.

1.2 Policy Goals and Performance of IDDA I

It is to be noted that the declaration by the African Heads of State and Government adopted in the Monrovia Strategy for the development of Africa recommended that the period 1981-1990 be declared the "Industrial Development Decade for Africa" for the purpose of focussing greater attention and evoking political committment and political and technical support at the national, regional and international levels for the industrialization of Africa.

This recommendation of the Heads of State and Government had its origins in the Lagos Plan of Action and the Final Act of Lagos 1980. The proposals, however, were adopted at the Sixth Conference of African Ministers of Industry held in Addis Ababa,Ethiopia in November 1981.

1. The main political message of IDDA has therefore been to promote the rapid industrialization of Africa within the time frame and scope of the Lagos Plan of Action. To that effect, political commitment and resource mobilization have been the two immediate goals adopted by major political and legislative bodies in Africa.

   An independent mid-term in-depth evaluation of the IDDA I conducted jointly by the ECA, OAU and UNIDO has also put the policy goals of IDDA as having been:

   a) the preparation of specific programmes such as the identification of core and strategic industries and the determination of needs for upgrading production and service capabilities, and

   b) the adoption of a multinational approach to the development of industries, the intensification of intra-African trade and co-operation and the strengthening of international negotiation capabilities.

   In other words, the policy goals were: reducing economic dependence; diversification and integration; the strengthening of technical capacities; subregional co-operation; and the promotion of intera-African trade.

   And its structure and content as being:

   a) a proclamation of goals and objectives;

   b) a set of guidelines addressed to governments;

   c) a set of guidelines relating to regional and subregional co-operation;

   d) techno-economic guidelines regarding core and strategic industries

   e) expert estimates of a quantity and direction of required industrial investments.

   However, as it was to be expected the evaluation discovered that the approach had its strengths and weaknesses. The basic strengths were found to be:

a) the definition of goals arising out of the Lagos Plan of Action, namely self-reliance and self-sustainment and the creation of internal engines of growth;

b) the provision of a framework within which individual countries could design their industrial development strategies;

c) the flexibility left to individual countries to prepare their industrialization plans to suit their own circumstances.

And the weaknesses of the approach were:

a) lack of a programme identity;

b) too difuse and amorphous to become an operational instrument;

c) over-optimistic in its assumptions of the practical possibilities of the major industrial investments in the decade;

d) equally over-optimistic about the practical possibilities of regional co-operation;

e) lack of quantitative targets;

f) inadequate attention paid to the economies of investment and to resource availability;

g) lacked a budget.

Consequently, the evaluation has concluded that, owing to various constraints, IDDA could not achieve one of its policy goals: the mobilization of additional resources for the industrialization of Africa. Accordingly, it was not possible, regretably to say that IDDA I was a success.

1.3 Need for IDDA II

Though IDDA I was not a success, the need for the determined pursuit of its policy goals is still there and will continue to be there, in as much as it is an open-ended developmental goal to achieve a higher and better living for the people of the continent.

IDDA II therefore, while still having the policy goals of IDDA I differs from the latter in its specific programmes and the strategies that it sees as appropriate for adoption for the purpose of achieving the specific goals laid down. Hence, the characteristic programmes of IDDA II are suggested to be the following:

1.3.1 Programme of Consolidation:

a) rehabilitation of existing industrial enterprises;

b) a national programme of preventive maintenance and domestic production of spare parts;

c) revitalizing the public industrial sector.

1.3.2 Programme of expansion and new investments:

a) core industries;

b) agro-industrial linkages;

c) food industries;

d) fisheries industrial systems;

e) pulp and paper industries;

f) leather and leather products.

1.3.3 Support programmes:

a) Programmes to strengthen human resources and technical capabilities:

- development of enterprenuership;
- training and skills development;
- development of technical capabilities.

b) Programmes for the development of physical infrastructure.

c) Programmes to develop the industrial infrastructure and basic services:

1) The role of government;

2) The economic operations:

- public enterprises;
- the private sector;
- development of small and medium-scale industries, the informal sector and rural industries;

3) Foreign investment;

4) Other support institutions;

5) Developing an investment portfolio.

1.3.4 Special Programmes for LDCs.

CHPATER II

ETHIOPIA: COUNTRY BACKGROUND

2.1 The Economy

Ethiopia, situated in the Horn of Africa with a coastline of over 1,000 kms. on the Red Sea, has a total area of more than 1.22 million square kms and a population close to 50 million.

The economy is predominantly agricultural with over 80% of of the population living in the countryside and mostly working the land generating about 50% of GDP. Livestock is one major resource contributing about 40% of total agricultural value-added while crop production contributes 50% and forestry and fishing another 10%.

Coffee is the main export commodity generating about 60% of merchandise export earning while other agricultural commodities like oilseeds and pulses and live animals generate over 30%.

At a time when the number and the installed capacity of local textile mills, tanneries and leather goods factories was small the country used to export raw cotton and hides and skins. Now, however, local production sometimes falls even short of domestic demand, as the care of cotton, and the supply of raw hides and skins does not leave much surplus either.

Since the eruption of the popular Revolution in 1974, state farms and agricultural co-operatives have come into being consequent to which about 10% of total food crop production is now generated by them. However, state farms are now de-emphasizing the production of cereals and are concentrating more and more on production of cash-crops.

Level of industrialization is low reflected by the fact that manufacturing industry accounts for only about 12% of GDP and 15% of export earnings from merchandize. While medium and large-scale enterprises are owned by the state, small-scale enterprises are private; the former generating about 75% of total value added in manufacturing and the latter the remaining 25%.

2.2 Identification of Potentials (Domestic Resource Base)

2.2.1 Human Resource Base

The total population of the country in 1989/90 was estimated to be 48 million, some 86% of whom lived in rural areas. The growth rate of the population, which for many years had been put at 2.5%, is now estimated to have risen to 2.9%. Out of the total population, 49.1% or 23.7 million are in working age group 15-51 years. Of the working age population 75% or 17.8 million are in the economically active category.

The country has three universities and eleven institutions of higher learning. The Addis Ababa University gives degree and diploma programmes in its day and extension classes. The University has Faculties of Technology, Pharmacy, Natural Science, Social Sciences, Medicine, Law and Education. The Technology Faculty of the University has Departments of Civil Engineering, Electrical Engineering, Mechanical Engineering, Architecture and Town Planning as well as Building Technology. The Asmara University has Departments of Biology, Chemistry, Economics, Accounting and English. The Alemaya Agricultural University has only Agricultural Departments. Of the higher institutions of learning, the Bahirdar Polytechnic Institute trains technicians in the fields of Agro-mechanics, industrial chemistry, as well as electrical, wood, metal and textile technology. There is also a Commercial School which gives training in secretarial science, accounting, banking and finance.

In addition to the above, there are also technical and vocational schools run by the Ministry of Education which give training in the fields of auto-mechanics, wood working technology, drafting and surveying.

The total student enrolment in schools and universities in 1985/86, excluding specialized schools and university extension students was 3,122,731.

The breakdown by level of education was as follows:

Grade 1-6		2,118,778
Grade 7-8		363,132
Grade 9-12		292,385
Universities		18,136
	Total	3,122,731

In 1989/90 Ethiopian industrial manpower stood at 81,400 permanent 17,000 temporary and 800 contractual of this only 1,600 were professional, 4,000 semi-professional and the remainder had only grade 8 and below level of education.

The total number of graduates from the universities and the other higher institutions of learning in 1985/86 was 4,381. The number of graduates in selected technical and science fields in the referred year is as follows in the table 2.2.1:

Table 2.2.1

NUMBER OF GRADUATES IN 1985/86 IN SELECTED TECHNICAL AND SCIENCE FIELDS

A. UNIVERSITIES	FIELD LEVEL		
	First Degree	Diploma	Total
A.1 Technology & Agriculture			
1. Agricultural Engineering & Technology	59	93	152
2. Architecture and Town Planning	19	-	19
3. Building Technology	-	67	67
4. Civil Engineering	-	61	61
5. Mechanical Engineering	-	35	35
6. Water Resource (Civil Engineering)	2	-	2
7. Electrical Engineering	-	21	21
8. Electricity	-	24	24
9. Automotive	-	15	15
10. Drafting	-	16	16
A.2 Science			
1. Chemistry	63	42	105
2. Physics	109	74	183
3. Accounting	120	289	409
4. Economics	108	-	108
5. Management and Public Administration	138	-	138
6. Agricultural Economics	59	46	105
7. Supply Management	-	71	71
8. Banking and Finance	-	63	114
9. Statistics	51	-	-
Grand Total	728	917	1645

2.2.2 Agricultural Resources

Agriculture is the main-stay of the Ethiopian economy and it will continue to play this key role for many years to come. Currently, it accounts for 18% of the GDP and 90% of exports and it is the means of livelihood of about 86% of the population. The country's principal natural resource is its rich and large agricultural land; close to 65% of the total land area of the country is considered to be suitable for cultivation and pasturage.

At present, of the total arable land less than 15% is actually under crops. In 1989/90 the total area of land under crop production was 6,311.1 thousand hectares and 57,010, 5,232 and 1,286 thousand quintals of cereals, pulses and oil seeds was harvested respectively in 1989/90 harvest year. Beside these, Ethiopia is also one of the coffee producing countries. The yearly production of coffee is about 160,000 tons of which half of it is for export.

Even though agricultural production, which is mostly for subsistance, is by and large in the hands of individuals, the Ministry of State Farms also participate in agricultural production. About 211 thousand hectares of land is cultivated by the State Farms and the yearly production is about 1 million quintals of cereals, pulses and oil seeds.

With respect to the size of its animal resources Ethiopia stands first in Africa and tenth in the world. Its large livestock population is estimated to include 27 million cattle, 18 million sheep and goats, 7 million aquinas, 1 million camels and 52 million poultry. However, because of the backward livestock raising methods employed there is mounting pressure on pasture land resulting in over grazing in many areas. The contribution of the livestock industry to the country's total production is at present very low compared to its potential, though it holds a great promise for the future as a source of export diversification.

2.2.3 Mineral Resources

The mining sector in Ethiopia is currently at a low stage of development accounting for only 0.3% of the country's GDP. Mining is restricted to extraction of gold and platinum at Adola and Yubdo respectively.

To date only 11% of the country's total area has been covered by small-scale geological mapping (1:250,000 scale), which is basic for mineral prospecting and exploration. 4% of the country has also been covered with similar scale maps for underground water studies. An area of around 150 thousand square kilometers has been delineated for geothermal energy sources surveys in the Rift Valley and Afar Depression. Moreover, exploration for petroleum and natural gas has been carried out in Ogaden and the Red Sea and useful information was obtained. Although these and other studies indicate that the country's mineral resources could be large and varied, until now these resources have not been developed to the exploitation stage because of shortage of capital, organizational problems, shortage of skilled manpower and inadequate attention given to the development of the sector. Such resources as oil, natural gas, gold, platinum, copper, potash, zinc, nikel, iron ore, coal and gecthermal are known to exist. Most of these minerals are essential for the future development of the industrial sector in Ethiopia.

Among these some 20 million tons of iron ore depcsit has been identified in Biklal, Wollega. There is also a huge deposit of iron ore found in Bale Administrative Region the detail study of which is under way at present. Other possible deposits are also identified in Wollega and Eritrea.

Some patches of lignite are identified in Shoa, Wollega, Gondar and Illubabor regions. The study is proceding for exploitation of the deposit found in Illubabor region in the coming few years.

Oil exploration has been going on in the country for some years and some deposits are identified in the Ogaden area. Drilling investigations are going on to determine the exploitable quantity. There is a huge deposit of Potash in the Daloi Depression, Tigrai region on which several investigations have been carried out and the reserve is proven. Potash can be used for potassium-based fertilizer production. Soda ash is available in large quantity in lake Shalla and lake Chitu and small-scale production is to start shortly.

An essential mineral for production of Sulphuric Acid, sulphur also exists in Ethiopia. Sulphuric rock containing some 18% sulphur is identified in the Danakil area and iron sulphide is available in Eritrea.

Abundant reserves of limestone are available in the country and the existing cement factories are exploiting some of them.

Sandstone is also available in abundance and the existing glass and bottle factories are exploiting some of them. Studies confirm that some of the unexploited deposits are suitable for sheet glass making. Tests conducted on some deposits confirm their suitability for use in foundries.

In the future, further investigations and tests are to be conducted on the identified reserves with priority to natural gas, oil and iron ore. Exploitation of a number of mineral deposits is also planned to start in the near future.

2.2.4 Forest and Fishery Resources

Ethiopia has a total land area of 122 million hectars of which about 8.8 million hectars are classified as forest land; the estimated area of natural closed forest is 4 million hectars, of which 850,000 hectars are coniferous forests and the remainder are broad-leaved dominant forests. The overall total standing volume in the closed high forests has been estimated at 200 m3 per hectar.

In terms of merchantable species yields are estimated to be from 40-100 m3/hectars for the caniferous forests and 20-40 m3/hectars for the broad-leaved forests. It is estimated that the forests include some 200 different species of which only about 15 are commercially used for sawntimber or plywood. In addition to natural high forests, there is an estimated area of 3 million hectars of woodlands and 25 million hectars of wooded grasslands, scrub and thickets. There are some 15,000 hectars of private plantations plus about 2,000 hectars of Government plantations.

Government activities in forestry development are increasing with international donor assistance. It is anticipated that commercial conifers, pine and cypres, will become more important plantation species in the future.

Preliminary studies of fishery resources indicate that the country has 9 million hectars of fishing area along the Red Sea Coast with an annual fish catch potentials of 66,000 tons and an additional 612,000 hectars of fresh water fishing grounds with an estimated annual catch potential of 26 000 tons is available in its in-land lakes and rivers.

At present there is no organized fishing activity in the country, but there are small private and co-operative fishing activities in the in-land lakes and rivers.

2.2.5 Energy and Water Resources

Ethiopia has considerable hydro-electric and geotermal power potential in its rivers and underground stem. The hydro-electric power potential alone is put at over 60 billion kwh.

At present electric power is generated mostly from hydro-power stations which supply mainly the country's main Inter Connected System (ICS). There are also a number of Self-contained Systems (SCS) supplied by mini-hydro plants as well as by diesel generating sets.

In 1989/90 the total installed power of hydro stations was about 366 Mw and that of thermal stations about 79 Mw. The main hydro power stations are Koka, Finchaa, Melka Wakena, Awash II and Awash III. The Gilgl Gibe power station which is under construction in Illubabor Administrative Region will have a capacity of 300 Mw and will be the largest in the country.

Although the electric power installed at present is not sufficient to enable the setting up of heavy industries in the country, the future plans are encouraging. There are about 12 projects with a total capacity of more than 350 Mw.

Despite the fact that Ethiopia is a country with abundant water resources the potentials of its many rivers and lakes for irrigation, power and drinking water still awaits future development. Of the estimated irrigable land area of 3 million hectars only 100,000 hectars or about 3% have been developed up to now.

2.3 Analysis of the Industrial Sector

The industrial sector emerged in response to an increased demand for industrial products which accompanied post World War II urbanzation. Factories were established in the 1950's to produce soap and edible oil, flour, leather, furniture and other domestic resource-based commodities on an industrial scale. This early phase of industrialization was facilitated by foreign investments which led to foreign ownership and management of larger industrial enterprises. Larger scale foreign owned industrial enterprises flourished in the 1960s with the benefit of high adhoc protective trade barriers and favourable financing terms not generally available to Ethiopian-owned small-scale enterprises. In consequence, manufacturing output as a proportion of GDP grew from 6.1% in 1961 to 9.3% in 1974.

The ownership of enterprises changed dramatically after the Revolution in 1974, when:

- a pervasive programme was launched by the Government to nationalize almost all (about 150) large private manufacturing enterprises;
- limits were imposed on to the expansion of remaining private enterprises through ceilings on fixed assets and restrictions on participation in certain activities;
- efforts were made to develop industrial sector co-operatives.

The industrial sector at present, is characterized by a dualistic structure where medium and large-scale enterprises owned by the public sector using relatively modern production techniques co-exist with rather rudimentary small-scale enterprises, dominated by private firms. The Industrial Public Enterprises (IPEs) now consists of some 204 firms of which 163 are within the portfolio of the Ministry of Industry, and the other 41 operate under the supervision of other economic ministries. Ministry of Industry controlled industrial enterprises account for about 80% of the gross value of production and 90% of total employment in the public industrial sector. They contribute about 75% of total value added in manufacturing (about 9% of GDP).

Small-scale enterprises (SSEs) numbering about 8,000 are much smaller than IPEs, with 93% of them employing ten workers or less. In fact, there are only 65 private enterprises with 50 employees or more. During recent years they have contributed about 3% of GDP and accounted for as much as one-third of manufacturing employment.

Manufacturing sector value added in 1987/88 was about 600 million dollars, contributing 11.8% to GDP formation, without any major increase since 1974/75 when the share of the sector was 11.1%.

The share of food processing, beverages, and textiles in manufacturing value added was as high as 70% in 1973/74 and was still a high 65% in 1986/87. Private sector output is about one fifth of the IPEs output in gross value added. Private enterprises mostly produce finished basic goods for domestic consumption, including garments, shoes, leather products, food, metal and wood furniture, and construction materials. Given the small-size of plants and the large number of private enterprises in the various industrial activities, the SSEs function in more competitive markets compared with IPEs, although as a result of input controls and restrictions they are also isolated from international markets and competition.

As a result of the concentration on the production of final consumer goods, the manufacturing sector is characterized by a low level of integration. Inter-industry linkages are weak as there is little production of intermediate goods. The high level of protection afforded to producers of final consumer goods and various import duty exemptions extended to imported capital and intermediate goods have discouraged investment in these sub-sectors. On the other hand, the SSEs and some IPEs (in food processing, sugar and spices, meat canning, leather and textile products and soap manufacturing) have strong backward linkages with the agricultural sector.

Most of the import substituting industries depend heavily on imported raw materials and spare parts. Import substitution has increased Ethiopian reliance on imports of intermediate and capital goods. In 1987/88 imports of intermediate goods (excluding petroleum) amount to about US$129 million or about 31% of total manufacturing gross output. This ratio is higher at around 46% for the aggregate IPEs sector, while it exceeds 60% in chemical industries and metal works. The cement industry continues to have the highest import dependence of around 80%. An increasing share of the economy is thus becoming vulnerable to foreign exchange shortages.

The orientation of the industrial sector towards meeting the consumption requirements of the domestic market has meant that little attention has been paid to the development of industrial exports. Ethiopia's merchandise exports constitute a relatively minor share of GDP, around 11% of which only 2.5% comes from the manufacturing sector. The structure of industrial exports shows high concentration on two types of products: leather and leather goods have accounted for approximately 60% of industrial exports over the past decade. Meat products, sugar, and molasses comprised another 30%. Export of leather and leather products now comprise 70%, foodstuffs 13% and textiles 7% of manufactured exports. In 1987, the manufactured goods exports (US$66.5 million) financed about 51% of imported input requirements (US$129 million) of the manufacturing sector.

Investment levels have always been low and represent a major constraint to economic growth. During the period since the Revolution, gross investment in the economy has averaged about 12% of GDP compared with an average of 2.2% for 16 countries in Eastern and Southern Africa in 1970s. Somewhat higher average investment levels during the 1980's were due mainly to accelerated puublic sector investments mainly by the IPEs. Investments in the industrial sector have varied considerably overtime in the post revolutionary period, coming to a vertual standstill during 1974-77. From 1978-1984, gross investment in state owned manufacturing was barely sufficient to replace obsolete plant and equipment. Private sector investment in manufacturing amounted to about 18 million Birr p.a. or about 12% public industrial sector investment during 1984-87. By the mid 1980s, however, the government had embarked on aggressive development policies within the framework of the 1984-93 Ten Year Development Plan (TYDP). In the industrial sector, the TYDP translated into a 50% increase in investment over prior years, notably in major projects in cement, beverages, textiles and food processing, including Muger Cement, Harrar Brewery, Dire Dawa and Kombolcha Textile Factories.

The IPEs sector is not a major employer. Although its contribution to GDP has been in the order of 7% its permanent employment in 1986/87 was around 79,000 less than 0.5% of the active population or about one-fifth of the annual new entrants to the labour force (400,000). Total wage employment in the SSE is about 34,000.

Table 2.3.1

Overview of the Industrial Sector; Key Statisitics
(1984/85)

	Public		Private	Total
	IPEs (Min.of Ind.)	OPEs (Other P.Es)	SSE's	Industrial Sector
Structure:				
- Number of Ent.	162	41	7,684	7,887
- Gross Val. of Prod. (million Birr)	1,890	743	409	3,042
- Share of Val. Added %	58	16	26	100
- Share of GDP %	5.1	1.5	2.4	9.0
- Permanent Employee	77,053	7,779	34,630	119,462
- Total Fixed Cap. (million Birr)	878.7	134.6	229	1,242.3

Table 2.3.2

Overview of the Industrial Sector: Key Statistics %

	Food	Beverage	Textile	Tobacco	Leather	Wood	Paper &Print	Chemical	Non-metal	Metal	Other
1. Total Mfg. Value Added (1984-85)	27	8	16.7	2.5	3	3	10.1	21	4	4.4	0.3
2. Public Sector (MOI) Ind. Output 1988	22.1	17.1	6.0	21.0	11.7	0.7	4.5	6.0	4.4	6.4	-
3. Structure of Producing Value Added (SSEs)1984-85	46.5	0.5	12.9	-	2.9	4.7	19.3	3.9	2.5	5.8	1.0

The feature of the industrial sector is such that it has a very high import dependency on:

- technology;
- intermediate inputs;
- machinery and equipment;
- spare parts and components;
- technical and mangerial skills and related services.

The environment within which the sector operates exhibits the following problems and constraints as being characteristic:

- shortage of domestic and imported raw materials;
- obsolensce of production machines and lack of spare parts and components;
- scarcity of skilled manpower;
- shortage of electric power supply;
- low productivity of labour;
- rigid price policy (which does not at all respond to fluctuations in rise in cost of production thus leading industrial enterprises to financial disaster);
- inadequacy and constraint of transporation and distribution systems thus heavily affecting the enterprises.

2.4 Review of Regulatory Framework and Public Policies Affecting Industrialization

The Government has recently issued a New Economic Policy which could change the country's economic structure. The policy is to restructure the economy on mixed economy basis i.e. built on state, private and co-operative ownership. It emphasizes the need for changes in the operation and management of state enterprise which will hence forth be based on competition both in the domestic and international markets. It also opens the field for private sector participation in process of economic development in general and industrial development in particular. Accordingly, any investor will now be able to participate without any capital limitations in any field privately or through the formation of partnerships and share companies. Private capital will therefore, be operating side by side with state enterprises and co-operatives in the industrial, agricultural, mining, transport, trade and other fields.

On the basis of the New Economic Policy, a series of proclamations and decrees were issued to regulate and promote the economy. The major policy issues and proclamations affecting industrialization are the following:

2.4.1 Investment

According to the Special Decree No.17/1990, investors are entitled to invest in any area of interest except in:

- Defence industry;
- Postal and telecommunication services;
- Air, rail and large-scale shipping transport; and
- Radio and television broadcasting services.

To start a new industrial investment activity imports of forklifts, machinery and equipment and their appliances necessary for production purposes and the first round of spare parts of same as well as machinery directly used for the construction of industrial buildings are exempted from the payment of customs duties. Other incentives like exemptions from income tax (tax holiday) depedning on the capital ranges to be invested are also provided. Accordingly,

a) up to 2 years where the capital invested is over Birr 500,000 but not greater than Birr one million;

b) up to 3 years where the capital invested is over Birr one million but not greater then Birr 5 million;

c) up to 5 years where the capital invested is over Birr 5 million.

Exemptions from taxation in expansion of activities are also provided, ranging from one to three years for capital ranges specified from a to c above. It is also specified that any investor can invest in more than one activity, unlike the previous law which limited investors to be engaged in only one activity.

According to this regulation, local or foreign investors in the form of Government organizations. co-operatives, mass organizations, individual enterpreneurs and business organizations such as:

- ordinary partnerships;
- joint ventures;
- general partnerships;
- limited partnerships;
- share companies, and
- private limited companies

are entitled to invest without any limitations on capital ceilings.

2.4.2 Joint Venture Law

The newly amended joint venture law No.11/1989 states that a joint venture may be formed by any Ethiopian public, co-operative or private capital on the one hand and foreign state, state enterprise, financial agency or private capital on the other, either separately, jointly or severally. A foreign investor can remit in convertible currency incomes derived from dividends, proceeds from liquidation or payments from the sale or transfer of shares of a joint venture.

It is also stated that a certain grace period in the form of exemption from custom duties for import is given for a venture depending on the agreement to be specified in its formation; and if the joint venture is exporting, it shall be exempted from the payment of custom duties and transaction taxes levied on export.

Income tax exemption for a joint venture undertaking will be as follows:

a) 5 years for new projects;
b) 3 years for major expansion.

2.4.3 Taxation

The Income Tax Proclamation No.173/1961 was further amended by a Special Decree No.18/1990. According to this decree the first 300 Birr income shall be exempted from payment of income tax (the previous tax law was 10 Birr for the first 300 Birr). The charging and levying rate of income tax is reduced substantially like for example, the highest being 59% for income levels greater than 36,000 Birr. The tax payable on dividend which was 25% previously is now reduced to 10%.

2.4.4 Industrial Licensing

According to Proclamation No.8/1990 any person who wants to establish an industrial enterprise should submit an application with statements from the concerned Government offices regarding health and sanitary conditions, environmental protection as well as safety measures to the appropriate authority. If an investor can't submit the required statements mentioned above it is possible to apply for a temporary industrial licence which is valid for up to one year, until such time the required information is available to get permanent licence.

2.4.5 Import-Export Licensing

The New Economic Policy of the Government has now allowed private participation in foreign trade (i.e. import and export trades).

So far private sector participation in imports has been minimal due to the current shortages of foreign exchange, though in principle such participation is allowed. With regard to export the Government has been encouraging export trade. To restructure the composition of exportables, which currently depends on one primary commodity: coffee, the government is planning to set up export processing zones for domestic and foreign investors.

CHAPTER III

THE NATIONAL PROGRAMME

3.1 Objectives, Strategies and Policies

In the Ten Year Perspective Plan (TYPP) of the country covering the period 1984/85 - 1993/94, industry has been accorded priority second only to agriculture. This high priority emanated from recognition of the characterstic feature of industry as having the potential to supply essential inputs to its own and other sectors of the economy and to use or process the outputs of other sectors.

The extremely low level of industrial development of the country is reflected, as stated earlier, by the hardly 12% of its contribution to GDP, less than 1% of employment of the total labour force, vary low level of industrial technology in use, total absence of technological research and development capabilities and practices, extremely high level of dependence on foreign suppliers in all its facets, low level of productivity and the fact that industrial production is almost entirely limited to consumer goods makes it incumbent upon the branch of the Government responsible for the industrial sector to chart a wide and ambitious objective for its development.

Accordingly, while the priority areas for special attention during the decade have been identified to be:

a) development of industrial exports;

b) development of small-scale and medium industries;

c) revitalization of public industrial enterprises;

d) development of core industries, and

e) development of human resources.

The broad objectives set for the industrial sector, which are hoped to address the intricate and complex problems of economic construction and the need to lay the material, technical and cultural foundations for a developing national economy could be summarized as follows:

3.1.1 Objectives:

a) to produce in sufficient quantity and acceptable quality basic consumer goods for the people and to ensure that the production of such goods increases continuously

b) to strengthen and expand the small-scale industry and handicraft sectors and to foster the emergence of dynamic entrepreneurship;

c) to create the production capacity for and to ensure the supply of basic capital goods and inputs to the agricultural sector;

d) to create the production capacity for and to supply the transport and construction sectors with inputs and capital goods;

e) to lay down the foundation for self-reliant and self-sustained heavy and core industries in the basic metal, engineering, chemical and non-ferrous minerals sub-sectors;

f) to develop industrial exports;

g) to develop human resources in science and technology in order to have the capacity to operate maintain and manage existing establishments as well as to design and fabricate machinery and equipment;

h) to create employment opportunities;

i) to foster inter-sectoral linkages with a view to optimizing the potential to use domestic resource and to expand the domestic market for industrial manufacturing.

3.1.2 Strategies

As pointed out in the objectives section above the types of industries planned to be developed fall under the following three broad categories:

- consumer goods industries;
- capital goods industries;
- export oriented industries.

And the strategies to be followed for the purpose of attaining the objectives are planned to be the following:

a) General

1. raising productivity through appropriate management, technological, manpower, financial and other functional trainings and incentive mechanisms;

2. economizing on time and other resources, increasing productivity and supplying improved production equipment at reasonable cost through establishing, strengthening and expanding research and technology centres;

3. strengthening quality control practices at factories and where they do not exist, establishing the facilities with a view to ensuring high quality of goods;

4. strenthening repair and maintenance facilities at factories and where they do not exist, establishing same in order to raise the economic life of the factories;

5. raising production through improved capacity utilization of existing factories;

6. raising level of investment with a view to creating new production capacity;

7. increasing domestic factor inputs through improved human resources development, research and development;

8. improving inter-sectoral linkages by processing primary products and supplying other sectors with processed products and intermediates and capital goods;

9. strengthening project planning and implementation capacity;

10. creating strong institutional capacity for proper selection of technology and for design engineering.

b) Consumer Goods (Small-Scale) Industries

1. using imported technology by the handicraft and small-scale industrial sectors with a view to improving quality of products and increasing volume of production;

2. creating attractive and conductive investment climate for the private sector to invest in these industries with a view to creating new production capacity and encouraging entrepreneurship;

3. establishing industrial estates with fully developed infrastructural facilities thus simplifying access for prospective and potential small industrialists.

c) Capital Goods Industries

1. encouraging and assisting the establishment of small and medium private and state industries that supply the agricultural sector (peasent and commercial farms) with small and big implements and various inputs;

2. creating local spare parts manufacturing capacity largely based on domestic resources;

3. establishing and expanding core industries like basic metals, engineering, chemicals and electric motors by way of providing the wide range of materials required in the engineering industry enabling the country to manufacture the equipment, machinery and spare parts needed for industry and agriculture; providing fertilizers, pesticides, process chemicals and packing materials particularly, relevant to agricultural and food production, respectively.

a) Export-Oriented Industries

1. charting and adopting policies like developing good working relations with international investors and marketers that would help remove bottlenecks and help increase export of processes goods;

2. increasing production of quality goods exclusively meant for export by way of increased and improved utilization of existing capacity and by creating new capacity.

3.2 Overall Industrial Development Programme (1991-95)

3.2.1 Performance During 1985-89

The first five years of the national ten year development plan ended in the budget year 1988/89. The table below depicts the performance of the industrial sector in aspects of production, sales (domestic and export) and investment during the plan period.

Table 3.2.1

PERFORMACE OF THE INDUSTRIAL SECTOR
1985-1989

	Planned million Birr	Actual million Birr	Performance %
Production	10,292	9,655	93.8
Sales - Total	11,561	10,889	94.2
Sales - Export	756	698	92.3
Investment - (Project)	1,201	968	80.6
Investment - Science/Tech.	11	3.2	29.1
Investment - Replacement/Rehab.	250	130	52.0

3.2.2 Problems Encountered

While it is true that the performances of production and sales have registered over 90% of the plan, investments have lagged behind the plan markedly.

Major factors that influenced the performances were, inter alia:

- shortfall in supplies that were to be had from the agricultural sector and accompanying quality problems;
- delays and absolute shortages in supplies of imported intermediate goods and spare parts due to unavailability of foreign exchange; and/or
- bureaucratic problems;
- delays in construction work of most new projects lagging demand for some industrial products, which together with insufficient supply of utilities brought about;
- under-utilization of capacity;
- inability to compete in price and quality in the international market with respect of new manufactured/processed products that had been marked for export;
- inability to raise as much finance both from domestic and foreign sources, as planned to meet the requirements of the project.

3.2.3 Problem-Mitigating Actions Taken

- instituting a system of economical usage of imported input materials and where possible, substituting them with domestic products;
- strengthening repair/maintenance facilities at factories;
- arresting the unco-ordinated activities of state trading houses and private businessmen that had negatively affected sales of domestic manufactures;
- inspiring the Government to institute various systems to encourage exports and to make exportation less unattractive to manufacturers;
- obtaining Government policy decision restricting export of raw hides and skins thus assuring tanneries of sufficient supply of raw materials.

3.2.4 Plan for 1990/91 - 1994/95

Production sales and investment plans of the sector for the period 1990/1-1994/5, the first half of the industrial development decade are shown here below.

Table 3.2.2

INDUSTRIAL SECTOR DEVELOPMENT PLAN
1991-1995

In million Birr

	1990/1	1994/5	Average annual growth%	Total for 5 years
Production	2,288	3,633	12.5	14,596
Sales: Total	2,782	4,549	12.9	18,035
Export	198	600	26.7	1,700
Investment:	855	512	12.5	3,908*
- New Project	508	262		2,400
- Science/Tech.	34	36		197
- Replacement/Rehab.	313	215		1,311

*) of which 2,232 million in foreign exchange. Envisages implementation of 102 new and 42 rehabilitation/expansion projects, of which about 70 would be commissioned.

Major investment projects planned to be carried out during the period are identified to be the following. Total investment during the decade is estimated to amount to over 6 billion Birr (US$3 billion).

Table 3.2.3

Investment plan 1990/1 - 1994/5

	No. of Projects			Investment 1,000 Birr		
	New	Expansion	Total	Foreign Exge.	Local	Total
Food	3	10	13	120,033	113,259	233,292
Sugar	6	1	7	394,800	245,091	639,891
Beverage	7	4	11	89,174	81,834	171,008
Tobacco and Matches	2	2	4	39,060	31,440	70,500
Textiles	40	7	17	374,895	320,236	695,131
Leather and Shoes	1	6	7	66,813	47,303	114,116
Printing	5	-	5	5,378	5,922	11,300
Cement	4	2	6	114,907	147,864	262,771
Chemicals	11	4	15	553,700	223,500	777,200
Metals	22	4	26	414,358	354,789	769,147
Others	1	2	3	88,700	84,200	172,900
Total	102	42	144	2,261,818	1,646,438	3,908,256

3.3 Development of Industrial Exports

The main feature of Ethiopia's export trade is that it constitutes a very small proportion of the gross domestic product and that it depends mainly on coffee. The contribution of industry to export earnings has been modest, accounting for a mere 2% of GDP in 1987/88. This modest export performance is by and large attributed to the leather industry sub-sector.

Given the fact that the prospect for a sustained increase in primary exports is gloomy, due to supply inelasticities and year to year fluctuation of international prices, the country will find it difficult to generate the foreign exchange required for its economic development. This signifies the need to increase and diversify manufactured exports. The small industrial base of the country however necessitates the identification of lead sectors of export potential in the short and medium-term.

In this regard some concrete measures are being taken to develop industrial export through the expansion of traditional manufactured exports and breaking into other manufactured export areas where the country enjoys comparative advantage. Consequently, the development of industrial exports will focus, first, on increasing the value added of leather exports through the export of finished leather and leather articles. Secondly, the export programme will focus on the textiles sub-sector, especially on the production of garments, knitwear and other articles for export.

Thirdly, the export programme will also provide within the food processing industry sub-sector - for the development of export of meat and meat products. To this aim, a new project will be implemented focussing on meat processing, cattle holding and fattening and producing of green food, while two existing meat processing factories will be rehabilitated.

3.3.1 Export of Leather and Leather Goods

a) Overview of the Sub-Sector

It is widely believed that Ethiopia has about 27 million cattle and 18 million sheep and goats and ranks first in Africa and tenth in the world in this resources.

Annual offtake is estimated at 7% for cattle, 33% for sheet and 36% for goats thus yielding 1.9 million hides, 7.9 million sheep skins and 6.5 million goat skins (a total of 14.4 million skins) annually, of which 70% of the hides (1.3 million pcs.) and 86% of the skins (12.4 million pcs.) reach the national commercial market.

While almost the entire national tanning capacity is under state control so is 60% of leather shoe-making capacity. However, capacity to produce other leather goods is only at its infancy with just one such state owned small factory in operation. The state-owned tanneries and leather products factories are under the direction and supervision of the National Leather and Shoe Corporation.

At this moment the Corporation has eight tanneries, six shoe factories (one of which is for canvas and rubber shoes) and one leather goods factory under its direct supervision, whose combined labour force stands at over 7,500 persons.

Installed tanning capacity is such that it can process up to finished stage only 50% of the hides that it receives and all the skins largely up to wet-blue stage, but also up to crust and even finished stage to a small degree. Value of actual production of leather and leather goods for each of the past three years is given below.

Table 3.3.1

VALUE OF PRODUCTION OF LEATHER AND LEATHER GOODS

In '000 Birr

Product	1987/88	1988/89	1989/90
1. Leather			
1.1 Finished	28,860	34,214	35,326
1.2 Semi-Finished	101,712	117,531	94,159
Sub-Total	130,572	151,820	129,485
2. Shoes-Leather	55,771	58,724	55,943
Shoes Rubber/Canvas/Plastic	46,914	40,947	32,714
Sub-Total	102,685	99,671	88,657
3. Leather Goods	4,036	3,317	3,137
Grand Total (Leather)	190,379	213,861	188,565
Grand Total Leather and Rubber	237,293	254,808	221,279

Average annual rate of growth of production of finished and semi-finished leather over the past years to 1989/90 in value was 6.2% (6.7% for finished and 6% for semi-finished) of shoes was 2.9 per cent and that of other leather go ds was 11.9%. The overall annual average rate of growth of production for finished and semi-finished shoes and other leather articles for the five years to 189/90 was 4.8%.

The depressed figure for semi-finished leather production during 1989/90 should be explained by the problems of restricted mobility that affected some of the regions of the country where from supply of raw hides and skin should have come.

Table 3.3.2

VALUE OF SALES OF LEATHER AND LEATHER GOODS

In '000 Birr

	1987/88	1988/89	1989/90
A. Export			
1. Leather			
1.1 Finished	1,647	1,924	1,246
1.2 Semi-Finished	119,392	130,157	119,040
2. Shoes - Leather	782	2,057	2,415
3. Leather Goods	2,550	1,632	2,551
Export Total	124,371	135,770	125,252
B. Domestic			
1. Finished Leather	36,713	38,906	42,756
2. Shoes - Leather	57,498	63,044	63,971
Shoes Rubber/Canvas/Plastic	49,325	44,281	34,822
Sub Total	106,823	107,325	98,793
3. Leather Goods	836	997	804
Domestic Sales Leather	95,047	102,947	107,531
Domestic Leather + Rubber	144,372	147,228	142,353
A + B	268,743	282,998	267,605

Average annual rate of growth of export sales of finished and semi-finished leather over the past five years to 189/90 in value was 11% (13.2% for finished and semi-finished leather, 63.1% for shoes, and 105.1% for leather goods) and that of domestic sales was 1.9% (8.9% for finished leather, 3.5% for shoes and 8.8% for leather goods).

The overall average annual rate of growth of sales of finished and semi-finished leather, shoe and leather goods both in the domestic and export markets over the past five years to 1989/90 was 8.5%.

b) Problems Encountered

1. Quality of raw hides and skins is fundamental to development of leather and leather goods industry. In this respect, a lot remains to be done by the Ministry of Agriculture, the abattoirs and to no small degree collectors/traders in hides/skins in view of the nearly 40% of all deliveries to the tanneries being of low grade.

2. Limited or near total absence of finishing capacity as evidenced by the fact that of the 15,000 raw skins that can be soaked daily, only about 1,000 can be processed up to crust stage. The situation in the hides section is not much different. Hence, remedial action needs to be taken in this respect too, i.e. gradully building up semi-finishing and finishing capacity more-or-less commensurate with level of penetration of the export market with such products.

3. Capacity utilization of the shoe factories is almost total in spite of their old age which has made it even difficult to obtain spare parts for them. It is, therefore, doubtful whether the level of production already attained could even be maintained, unless they are replaced before long.

4. Shortage of skilled labour, especially tanneries and leather technologists.

5. Overhead cost that is incompatible with the need to be cost efficient in order to have the/average to be/competitive in price in the international market.

6. Shortage of investment and working capital both in local currency and foreign exchange.

c) Development Plan

During the coming five years 1990/91-1991/95, it is planned to develop the sub-sector along the following lines.

Investment

1. In order to create capacities for higher stage of processing and also to remove production bottlenecks in the tanneries the following small investments are envisaged.

Table 3.3.3

INVESTMENT PLAN FOR TANNERIES: 1991 - 1995

Tannery	'000 Birr
1. Ethiopian Tannery	11,400
2. Awash Tannery	11,200
3. Addis Tannery	11,700
4. Qay Bahir Tannery	7,300
5. Ethiopian Pickling	9,300
6. Modjo Tannery	9,600
7. Asmara Pickling	4,900
8. Kombolcha Tannery	3,800
Sub Total	69,200
9. Leather Institute	12,000
	81,000

2. With regard to development of shoe factories the following investment plan has been envisaged.

Table 3.3.4

INVESTMENT PLAN FOR SHOE FACTORIES: 1991 - 1995

Factory	'000 Birr
1. Anbessa Shoe	377
2. Canvas & Rubber	5,577
3. Dahlak Shoe	10,490
4. Eritrea Shoe	713
5. Ethiopian Footwear	792
6. Tikur Abbay Shoe	737
7. Manpo	1,245
8. Universal	3,691
Total	23,622

Planned Production

It is envisaged that during the coming five year period, with respect to production a major development should be registered in increasing the level of processing of hides and skins in order to increase the value added thereby also to increase the foreign exchange earnings of the nation.

Accordingly, assuming that the ten year average supply of

1.22 million Hides,
7.43 million Sheepskins,
4.86 million Goatskins

will continues of which private tanneries will process

0.11 million hides (9% of total supply),
0.56 million sheepskins (7.5% total supply),
1.83 million goatskins (37.7% total supply)

the product mix profile and value of exports is expected to change from its present situation as shown here below.

Table 3.3.3.5

PLANNED PRODUCT MIX AND VALUE OF EXPORTS: 1990-95

	1989/90		1992/93		1994/95	
	Qty. %	Value Mill. Birr	Qty. %	Value Mill. Birr	Qty. %	Value Mill. Birr
Hides:						
Wet blue	20	3.3	9	2.1	-	-
Crust	17	9.1	22	11.1	20	11.5
Finished	63	1.3	69	-	80	-
Sub Total	100	13.7		13.2		11.5
Sheepskins:						
Pickle	90	73.6	30	25	-	-
Crust	10	7.0	55	63	70	81.0
Finished	-	-	15	-	30	3.3
Sub Total	100	80.6		88		84.3
Goatskins:						
Wet blue	91	24.6	52	14.0	7	2.7
Crust	9	1.5	35		75	
Finished	-		13	11.6	18	27.1
Sub Total	100	26.1		25.6		29.8
Leather Goods:						
Jackets (1,000 Pcs.)	13	1.8	145	20.3	273	57.6
Shoe Uppers (1,000 Pairs)	230	2.4	750	8.4	1,000	11.2
Others		0.8				
Sub Total		5.0		28.7		68.8
Total		125.4		155.5		194.4

It is expected that the private sector too will gradually build the physical capacity and the technical competence to enable it process hides and skins to higher stages, so that by the end of the five-year period its production assortment will probably be as follows:

Table 3.3.6

PLANNED PRODUCT MIX AND VALUE OF EXPORT: 1990-95
THE PRIVATE SECTOR

In '000000 Birr

	1989/90		1992/93		1994/95	
	Qty. %	Value	Qty. %	Value	Qty. %	Value
Hides						
Wet blue	100	n.a.	100	2.3	60	1.4
Crust	-			-	40	2.0
Sub Total				2.3		3.4
Sheepskins						
Pickle	100	n.a.	100	6.4	50	3.3
Crust	-		-	-	50	4.0
Sub Total				6.4		7.3
Goatskins						
Wet blue	100	n.a.	100	14.8	40	8.9
Crust	-	-		-	60	7.9
				14.8		16.8
Total		13.2		23.5		27.5

In totality, therefore, leather and leather goods are expected to generate foreign exchange, through exports, Birr 138.6 million (125.4 + 13.2) in 1990, Birr 179 million (155.5 + 23.5) in 1993 and Birr 221.9 million (194.4 + 27.5) in 1995, an increase of 29% and 24% respectively or an increase of 60% over the fiver year period.

Strategies

In order to attain the foregoing objectives of improving the tanneries, increasing production and increasing export sales, the following strategies are to be followed:

1. rehabilitate, remove bottlenecks and expand semi-finishing and finishing capacities within existing tanneries and shoe factories to optimize utilization of capacity to reduce overhead cost and to optimize utilization of skilled labour;

2. increase value added and foreign exchange earnings not only through higher state processing of hides and skins but also through converting leather into leather goods;

3. train tanners, leather technoloists, marketers and allied professionals both in country and abroad;

4. expand existing rubber, canvas and plastic shoe factories in order to release more leather for the export market and for making leather goods;

5. optimize exploitation of and maintain the well-established reputation of the National Leather and Shoe Corporation for making quality products;

6. establish a new leather garment and glove factories in joint-venture with well-established foreign companies;

7. explore possibilities, develop potentials and conduct aggressive international consolidated marketing of finished leather and leather goods in association with carefully selected foreign collaborators;

8. assist private tanneries and leather goods makers with supply of critical intermediate inputs, market information and through supply of leather;

9. strengthen the newly established local chapter of the International Leather Council so that benefits accrue to the private sector as well;

10. expedite the process of raising the necessary investment capital from local and foreign sources so that the planned implementation schedule would not be harmed.

3.3.2 Export of Textile Products

a) Overview of the Sub-Sector

Today there are 20 textile and garment factories in the country, all of which are state-owned and fall under the supervision and control of the National Textile Corporation. These factories employ nearly 35,000 persons and have an installed capacity of over 300,000 spindles of which about 4,000 are for fibre products, more than 3,600 looms, 243 knitting and 1,300 sewing machines. Of the 20 factories, four are dedicated to garment production, to are integrated mills which produce yarn, knit fabric and knit garments and three are dedicated to fibre products.

Physical output has shown mixed trends during the past five years with considerable growth in garments but declines in all other types of products. The following table depicts that:

Table 3.3.7

NATIONAL TEXTILE CORPORATION

QUANTITY OF PRODUCTION BY TYPE OF COMMODITY

Major Product Groups	Unit of Measure (1,000's)	1984/85	1988/89	Change 1988/89 1984/85 %
Fabrics	M2	78,691	70,744	-10.1
Market Yarn	Kg	9,410	5,996	-27.3
Blanket	M2	4,287	3,919	- 8.6
Knit Garment	Pcs	5,116	6,184	20.9
Woven Garments	Pcs	2,599	4,195	61.4
Thread	Kg	334	320	- 4.2
Acrilic Yarn	Kg	1,260	353	-72.0
Sacks	Kg	9,524	13,387	40.6
Hessian Cloth	Kg	1,157	2,074	79.3
Turine	Kg	682	353	-48.3
Woolen Cloth	M2	144	124	-13.9

Data published in 1990 by the International Textile Manufacturers Federation (ITMF) shows Ethiopia as ranking eighth among African countries in installed spindles and tenth in installed weaving capacity.

When the corporation completes its planned expansion by 1994/95, a 150 per cent increase in production of basic textile products is envisaged. With only 0.44 kg. per capita consumption of textile fibre in 1989, there should be no problem for the local market to absorb the extra production net of extra exports.

With regard to exports, the corporation registered a modest performance of Birr 0.8 million 1981/82 and Birr 2.4 million in 1984/85 before jumping to Birr 18 million in 1987/88, Birr 21.1 in 1988/89 and about Birr 40 million in 1989/90. The table below shows the product assortment, quantity and value of exports recorded during some selected years.

Table 3.3.8

NATIONAL TEXTILE CORPORATION

EXPORT PERFORMANCE

Year	Quantity in 1,000	Product	Value 1,000 Birr	Total Value 1,000 Birr
1981/82	450 Pcs.	Knitwear	822	822
1984/85	1,055 Pcs.	Knitwear	1,621	
1984/85	548 Kg.	Cotton Waste	727	
1984/85	18 Pcs.	Towels	93	2,441
1987/88	2,170 Pcs.	Knitwear	3,822	
1987/88	3,417 Pcs.	Woven Shirts	5,681	
1987/88	581 Kg.	Cotton Waste	550	
1987/88	121 Kg.	Cotton Yara	745	
1987/88	1,317 Mts.	Woven Fabrics	1,384	
1987/88	3,417 Pcs.	Garment Access.	5,681	
1987/88	783 Pcs.	Towels	130	
1987/88	-	Others	12	18,005
1988/89	3,317 Pcs.	Knitwear	5,336	
1988/89	32	Woven Shirts	213	
1988/89	912 Kg.	Cotton Waste	586	
1988/89	77 Kg.	Cotton Yarn	426	
1988/89	1,547 Mtrs.	Woven Fabrics	9,202	
1988/89	2,054 Pcs.	Garment Access.	3,979	
1988/89	201 Pcs.	Towels	1,344	21,086
1989/90	4,490 Pcs.	Knitwear	7,436	
1989/90	2,106 Pcs.	Woven Shirts	7,382	
1989/90	170 Kg.	Cotton Yarn	893	
1989/90	8,065 M2	Woven Fabrics	24,117	40,028

b) Planned Exports

Export of textile products, particularly during the first half of this decade (IDDA II) is planned to consist of fabrics, knitwear and shirts. Accordingly, it is envisaged that export of fabrics gradually grows from 3.8% of total production in 1991 to 18.6% in 1995 or from 4.5 million sq.m. to 40.5 million sq.m., making a total of 96 million sq.m. during the five year period.

Export of knitwear is expected to grow from 12 million pieces in 1991 to 63 million in 1995 a five-fold increase making a total export of 186 million pcs. over the five year period.

With respect to shirts the figure is 1.6 million pcs. in 1991, which is planned to grow to 52 million pcs. in 1995 a 32 fold increase making the total number of shirts exported during the five year period 121 million pcs.

Table 3.3.9

NATIONAL TEXTILE CORPORATION

PLANNED VOLUME AND VALUE OF EXPORTS: 1991-1995

Quantity: Million
Value: Million Birr

Product	Year									
	1990/91		1991/92		1992/93		1993/94		1994/95	
	Vol.	Value	Vol.	Value	Vol.	Value	Vol.	Value	Vol.	Value
Fabrics	4.5m2	14.0	12m2	37.3	17.5m2	54.3	21.5m2	66.8	40.5m2	125.8
Knitwear	12.0pcs	19.0	21pcs	24.3	39.0pcs	33.1	51pcs	39.2	65pcs	45.2
Shirts	1.6pcs	7.5	8pcs	24.4	19.6pcs	47.9	40pcs	68.3	52pcs	123.6
Total Value Million Birr		41.4		86.0		135.3		174.3		294.6

It means, therefore, that by 1991 export of fabrics is planned to generate Birr 14 million, knitwear 19.9 million and shirts 7.5 million, making a total of Birr 41.1 million growing steadily until it will generate Birr 125.8 million, 45.2 million, and 123.6 million, respectively or a total of almost Birr 195 million by 1995. With an annual growth rate of about ten per cent, total value of textile exports by the end of the decade is expected to reach amost 500 million Birr per year.

c) Planned Investments

In order to be able to achieve this goal therefore, it has been noted that:

i) the needed extra production capacity has to be created;
ii) the products must be of high quality;
iii) finance must be sourced to implement the projects in time, and
iv) a workable marketing strategy must be laid out and implemented.

Towards this end, therefore, strategies have been worked out among which the creation of new capacities, also capable to produce quality products is planned to be attained in the following manner.

Table 3.3.10

NATIONAL TEXTILE CORPORATION

PLANNED INVESTMENT IN THE TEXTILE SUB-SECTOR

	Factory	Planned Commissioning	New/ Expansion	Newly Created Capacity	Investment in mill.Birr		
					Total	Local	Foreign
1.	Awassa	1995	Phase II	25 mill.m2	180	72	108
2.	Bahir Dar	1994	Phase II	15 mill.m2	50	20	30
3.	Dire-Dawa	1994	Reh./Exp.		140	56	84
4.	Akaki	1995			42	17	25
5.	Central Finishing	1993	New	73 mill.m2	170	68	102
6.	Filty Garment Fact.	1995	New	1.2 mill.pcs	348	139	209
7.	Ten Knitwear Factories	1996	New	60.0 mill.pcs	100	40	60
			Total		1,030	412	718

It is envisaged that during the second-half of the decade investment of almost the same magnitude as that of the first would be carried out, thus bringing the total investment in the sub-sector to almost one billion during the decade.

d) Export Stragey

Export business of all the textile factories is centralized at corporation level. Hence, it is in a position to offer an assortment of textile products to any potential importer. And today, it has a standing agreement with "Ethiopia Trading Company", an Italian importing firm, for the sale of substantial quantity of all the products that the corporation manufactures for export. This strategy of making a long-term agreement with an established importer/distributor has been found to be of great value for a novice exporter like the National Textile Corporation.

The corporation also participates in almost all major textile trade fairs thus establishing contacts with major importers with whom it has now a well-developed acquaintances, affording it the market whenever it is in a position to enter the export market with products of reasonable quantity and quality.

The corporation is also continuously building its own in-house capability and capacity by way of training its staff and developing its institutional infrastructure in order to be able to independently market its own products.

The other stategies that are to be adopted and strictly followed, however, are:

- producting the items on the basis of direct advance orders by importers who would specify quality, colour, size etc.;

- optimizing and maximizing advantages by exporting to the European Community Countries where, Ethiopia as a Lome convention country enjoys preferential treatment by not being subject to quotas and import tariffs;

- exporting to other developed economies through the marketing efforts and representation of well established marketers;

- establishing joint-venture production and marketing organizations;

- causing the Government to declare the factories that manufacture for export "Export Processing Factories" thus enjoying all the benefits that such a status affords them which should then put them at a very competitive position in world trade.

3.3.3 Export of Meat and Meat Products

a) Overview of the Sub-Sector

The relationship between food, agricultural production and industry takes on particular dimension in the ecoromic development and growth of the country.

In this respect the development of livestock resources has a significant importance in terms of increasing the present 10 - 20 per cent of the raw materials produced by the agriculture and processed by the industry.

Within the food processing - which is a leading industrial activity accounting to almost 23 per cent of total output in the manufacturing sector in gross production value to about 19 per cent as contribution to MVA and 20 per cent of employment - the meat processing and the manufacturing of dairy products account for more than 11 per cent, both oriented towards domestic and foreign market.

The total organized production of meat recorded in official statistics accounts to about 415,000 tonnes per annum (approximately 14 Kg. per capita).

In the rural areas most of the meat for domestic consumption is supplied through priate retailers from backyard slaughtering. In urban areas almost half of the meat sold is slaughtered at municipal abattoirs and provided fresh or frozen through the official channels.

Unfortunately, only 2.3 per cent of the meat produced undergoes further processing.

Nevertheless, it is expected that Ethiopia's huge livestock could provide a sound basis for the development of export oriented meat processing.

In this respect the Ethiopian Livestock and Meat Corporation ELIMCOR has wide ranging responsibilities in carrying out several livestock fattening, diary production, poultry production, feed processing and the marketing of the meat and meat products through its specialized enterprises and six meat processing factories.

The Corporation produces corned beef, beef in jelly, boiled beef, minced meat and wot (Ethiopian curry made from beef and mutton, accounting for 75 per cent of output from 1981/82 to 1985/86) in addition to meat products which undergo no processing - frozen carcasses boned meat.

The output of meat products amounted to 5,000 tonnes in 1985/86.

The resources were concentrated in those plants which process meat for export.

Production of wot for the domestic market has reached 3,500 tonnes in 1985/86, that is 70 per cent of total output.

ELIMCOR has given priority to export of meat and meat products which has averaged 1,900 tonnes over the period 1980/81 to 1986/87.

Slaughterhose by-products amounted to about 85,000 tonnes per annum in the mid 1980's and were collected from the public abattoirs, of which about 7,800 tonnes per annum were used for human consumption while 49,000 tonnes per annum for industrial purposes (meat and bone meal), most of which exported as feed compounds for poultry and pigs.

Blood meal is also a valuable feed supplement but production is limited due to low capacity of drying plants at the public abattoirs.

Other by-products - technical fat - is used in the manufacturing of tallow necessary for producing soap and other products made by chemical plants. It has reached almost 280,000 tonnes in 1985/86.

The range and volume of slaughterhouse by-products used in the manufacture of annual feed could be increased, thus strengthening the linkage between the industrial and agricultural sectors.

ELIMCOR has encountered constraints ranging from high production costs, unreliable deliveries of packaging products, irregular supplies of livestock, limited cold storage and slaughtering facilities to increasing competition from private sector, impairing its profitability and export potential. The Corporation is currently trying to solve such problems, increase its production and raise its quality.

b) Export Development

In order to augment foreign exchange earnings from the abundant livestock resource, the Corporation has planned to implement new development projects and rehabilitate existing meat processing factories. The projects are aimed at supplying meat and meat products to the foreign market at competitive prices.

c) Investment

c.1 New Projects

Among the new projects, the establishment of a complex at Melka-Sedi is one of the major ones. It will comprise meat processing factory, cattle and holding fattening unit, quarantine section and a unit for the production of green food.

The main objectives of the meat processing activities - among which of the Melka-Sedi complex project - are: promotion of the foreign exchange earning capability, creation of a market outlet for the livestock of the surrounding and adjacent areas and creation of job opportunities especially for the population in the area.

c.2 Strategies

In order to attain the above mentioned objectives the following strategies are to be followed:

- expand meat processing capacities by the establishment of the new Melka-Sedi project and rehabilitation of two existing factories: Kombolcha Meat Processing Factory and Melgue Wondo Meat Factory in joint ventures with well-established foreign companies;

- increase value added and foreign exchange earnings not only through higher stage processing of meat but also through increased capacity of slaughtered by-products;

- train meat processing labour, meat and meat products technologist, marketers and allied professionals both in the country and abroad;

- expand cattle handling and fattening capacity in order to release more meat for the export market and for meat processing products;

- optimize exploitation and maintain the well established reputation of ELIMCOR for producing quality meat and meat products;

- explore possibilities, develop potentials and conduct aggressive international consolidated marketing of meat and meat products in association with carefully selected foreign partners;

- assist meat processing factories with supply of critical intermediate inputs market information and through supply of cattle;

- expedite the process of raising the necessary investment capital from local and foreign sources so that the planned implementation schedule would be met.

The complex is located in the western Harerge Administrative Region at 260 km from Addis Ababa 27 km from Awash and only 8 km of Addis Ababa - Assab highway. Melka-Sedi was selected to be the project area not only because the town is situated in the well developed Awash large-scale agricultural farms with adequate power and water supply, but it is also easily accessable for purchases of cattle from Showa, Harerge, Arsi, Bale and Wollo Administrative Regions.

The complex will comprise four main production section; frozen chilled beef, canned meat, fattened steers and industrial by-products which will produce the following quantity and respective revenue:

Table 3.3.11
TOTAL PRODUCTION AND REVENUE

Sr. No.	Type of Product	Quantity in tonns	Total Revenue in US$
1.	Finished Beef Cattle	5,761.50	6,913,800
2.	Special Cutts	1,097.56	2,304,666
3.	Refrigerated Carcasses	1,718.55	2,801,236
4.	Pistola Cutts	1,296.45	3,033,693
5.	Corned Beef	1,660.02	3,051,515
6.	Meat Extract	76.20	342,900
7.	Industrial Fat	796.21	581,233
8.	Cattle Tongue	90.45	67,837
9.	Dry Hides	361.80	542,700
	Total		19,639,580

From the annual sales revenue of US$19.6 million more than 95% is in foreign exchange.

The major market are reckoned to be:

- Belgium and United Kingdom (Corned Beef);
- Italy (Meat Extract and Dry Hides);
- Middle East/Arab Countries (Frozen, Chilled Product and Finished Beef Cattle).

The total investment cost is estimated at US$19,9 million while the foreign exchange requirement of the project is US$11.2 million.

c.3 Rehabilitation Projects

The increase in production and raise in quality of meat and meat products are to be obtained also by rehabilitation of two existing factories: Kombolcha Meat Processing Factory and Melgue Wondo Meat Factory.

c.3.1 Kombolcha Integrated Meat Industry Rehabilitation Project

The Kombolcha Meat Processing Factory has not been able to make full use of the large resources of cattle of the area because of obsolescence of machinery and limited capacity.

The Kombolcha Integrated Meat Industry Rehabilitation Project is designed to overcome the present constraints by establishing a farm for the production of animal feed, a feed lot and rehabilitating the Meat Processing Factory.

The Agricultural Farm is intended for the production and supply of feed for the feed-lot and in addition to serve as a holding place of cattle during dry periods.

The Industrial Beef Cattle Farm is to be specialized in the intensive production of cattle and to supply the abattoir as well as the live export enterprise.

The main aim to rehabilitate the Meat Processing Factory at Kombolcha is to make the abattoir efficient and productive by replacing the old plant or parts and increasing the working capacity of all the departments of the abattoir.

The available area of the Agricultural Farm is suitable for agriculture development to supply feed required by the Feed-lot sub-project and accomodates 50,000 cattle per annum. They are used in the abattoir for canning corned beef and stewed steak. In the Feed-lot 30,000 cattle are fattened annually of which 15,000 are sent to the abattoir at Kombolcha for Pistola cuts and finished beef while the other 5,000 are for live export via Assab port.

The abattoir at Kombolcha processes meat products classified in four categories: frozen and chilled beef, canned meat, fattened steers and industrial products. The major markets for the meat products are intended to Belgium - for corned beef, Italy - for meat extract, stewed steak and dry hides and Middle East (Arab countries) - for frozen and chilled products as well as live finished beef cattle.

The total production by type of meat products and the expected revenue are listed in the table below:

Table 3.3.12

TOTAL PRODUCTION AND REVENUE

Sr. No.	Types of Meat Product	Quantity (t/y)	Revenue (US$)
1.	Pistola Cuts	953.00	2,231,200
2.	Corned Beef in Cans	1,501.64	2,409,700
3.	Stewed Steak in Cans	1,283.72	1,566,100
4.	Meat Extract	69.08	310,900
5.	Finished Beef Cattle	4,479.00	5,374,800
6.	Cattle Tongue	71.45	53,600
7.	Dry Hides	335.81	503,600
8.	Industrial Fat	727.34	531,000
9.	Meat of Blood, Meat and Bone	960.83	192,200
	Total		13,173,100

The total investment cost of the project is estimated at US$8.7 million, while the foreign exchange requirement is US$6.5 million to be financed from foreign sources.

c.3.2 Melegue Wondo Meat Factory

The factory is intended to purchase cattle from large markets, feed and manage them and slaughter those meeting the health and weight conditions.

The location is Melgue Wondo in the Sidamo Administrative Region at 20 km from Sheshemene, equiped with adequate water supply and electric power and situated close to the main source of cattle supply. The output of the factory consist of frozen, chilled beef, canned meat, fattened steers and industrial by-products.

The quantity of production by type of meat product and the projected revenue that can be generated are summarized in the table below:

Table 3.3.13

PROJECTED PRODUCTION AND REVENUE

Sr. No.	Type of Meat Product	Quantity (t/y)	Revenue (US$)
1.	Finished Beef Cattle	5,702	6,842,160
2.	Special Cuts	1,382	2,902,767
3.	Refrigerated Carcasses	2,331	3,799,595
4.	Pistola Cuts	1,759	4,144,890
5.	Corned Beef	1,850	3,401,222
6.	Meat Extract	96	431,865
7.	Industrial Fat	1,023	746,695
8.	Cattle Tongue	117	81,160
9.	Hides	467	701,070
10.	Cooked Meat in Pouches	244	891,367
11.	Pettet and Treated Straw	-	593,356
	Total		24,506,147

The major prospective markets for the meat products are:

- Belgium and Great Britain for corned beef;
- Italy for meat extracts and hides;
- Middle East (Arab countries) for frozen and chilled meat as well as for fattened beef cattle;
- local market and to some extent neighbouring countries for pettet and treated straw;
- local market for industrial by-products which are fat and cattle tongue.

The factory needs to buy 60,225 cattle per annum mainly from Sidamo and Bole Administrative Region and has to purchase 5,445,937 cans either from abroad or from the new Can Making Factory that is intended to be established at Kombolcha.

The total investment requirement for rehabilitating the factory amounts to US$20.1 million while the foreign currency component is US$12.1 million to be provided by foreign partners.

3.4 Development of Small-Scale and Medium Industries

Small-scale and medium industries can have a significant impact on the process of economic development of less developed countries like Ethiopia. Usually, small-scale industries are labour intensive and account for more jobs per unit of capital invested. Their establishment would thus generate employment and income and help to check rural-urban migration. The location of small-scale industries in rural areas is likely to encourage the use of new, renewable and alternative sources of energy, which are invariably cheaper to produce, thereby reducing the use of imported energy and other factors and conserving foreign exchange. These industries are also centres for the development of semi-skilled manpower and indigenous entrepreneurial capabilities badly needed for industrialization. Their establishment also encourages the development of integrated and interlinked industrial development by subcontracting. Small-scale industries geared towards the production of components or spare parts also stimulate the growth of other sectors, such as food and agro-based industries, building industries, transport and energy. The promotion and expansion of small-scale industrial activities in these production sectors could help meet the goals and objectives of rapid and integrated development with emphasis being placed on the satisfaction of basic needs and the use of local resources.

3.4.1 Overview of the Sub-Sector

Many of the existing 8,000 small-scale industries (SSIs), mostly flour and oil mills and bakeries, were in operation in the 1950s and 1960s, especially those in Addis Ababa and Asmara. However, the size of private sector manufacturing was sharply reduced at the time of the Revolution with the transfer of most medium and large-scale enterprises to the public sector. The SSIs are much smaller than industrial public enterprises (IPEs) with 93% of them employing 10 workers or less; in fact, there are only 65 private enterprises with 50 employees or more. Hence, the sector consists, almost entirely, of small-scale enterprises and handicraft operations alone.

The sector's contribution to GDP is not more than 4 per cent and its export earnings insignificant with only about 10 per cent contribution to the value of manufactured goods exports or about 15 million Birr. In terms of employment however, it represents about one-third of manufacturing employment or about 34,000. Between one quarter and one-third of industrial sector value added is also generated by the sector. This state of affairs relates to the unfavourable policy environment in which the sector has been operating in the past.

Given the severe supply and quality constraints, SSIs appear to be operating quite efficiently. Industrial equipment is being operated remarkably efficiently and maintenance is good. On the other hand, SSIs economic efficiency is paralized by low capacity utilization, now in the range of 15% -30% on average. However, if input constraints are removed and capacity utilization increases, significant efficiency gains should occur through higher total factor productivity.

3.4.2 Development Objectives

The specific development objectives of the sub-sector, which are an integral part of the development objectives of the entire industrial sector could be stated as follows:

a) production of basic consumer goods;

b) production of tools and other light manufactures for use by the peasant agricultural sector thereby fostering linkage with it;

c) production of light building construction materials thereby fostering linkage with it;

d) contribution to equitable geographic distribution of industrial capacity;

e) contribution to foreign saving and earning;

f) contribution to employment generating.

3.4.3 Strategies

With the prupose of attaining the foregoing objectives and benefiting from the dynamism of the sector, however, the Government has recently taken policy measures that would enable such industries (private sector) operate under more favourable environment. The new policy aims at encouraging private investment without any limit on capital, offers attractive incentives, permits their establishment also on joint venture basis etc.

As in the case with other developing countries, there is need to foster the emergence of dynamic entrepreneurship. Shortage of finance, technical and managerial services are but a few of the problems that need to be addressed. Accordingly, the formulaton and implementation of adequate development programmes of the sector by the Ministry of Industry is in full swing which, when fully implemented shortly, shall transform the sub-sector and bring back to life and unleash the heretofore suppressed dynamism of the sub-sector.

3.4.5 Role of the Private Sector (SSIs)

a) General Consideration

In Ethiopia "private sector" means Small-Scale Industries (SSIs). The considerable development needs of the country, its low absorptive capacity and resource constraints call for a revival and strengthening of the role of the private sector with its important potential as a source of growth. The promotion of this sector should be a permanent feature of development process.

The new reform policy changes in the legislation governing private sector investment are ment to stimulate the expansion of the small-scale industries which make a significant contribution to the manufacturing activity.

The Ethiopian economy will be able to generate the necessary domestic resources required to implement its investment plans if would involve an important source of savings effort from the private sector. These savings could be promoted if there are profitable and secure investment opportunities.

The present structure of the private sector reveals the existance of about 8,000 SSIs. More than half are engaged in food processing contributing about 47 per cent in terms of value added, while paper and printing have 19 per cent, textiles 13 per cent, wood processing 5 per cent, chemicla 4 per cent and leather and shoes 3 per cent.

b) Major Constraints Faced by the Private Sector

Among the major constraints faced by SSIs are:

- high domestic market prices relative to world market prices at the official exchange rate discouraging exports;
- shortage of inputs and capital in spite of a strong internal demand;
- scarce of domestic inputs and foreign exchange which resulted in extremely low capacity utilization and labour productivity;
- shortage of skilled and managerial and technical staff;
- little access to adequatly trained skilled employees;
- limited access to bank finance for start-up and working capital:
- low technology.

c. Strategies to be Applied for the Private Sector

These contraints could be removed if appropriate and stimulative strategies to promote and strengthen SSIs would be applied, such as:

- increase share of the private sector in total investment;
- allow access to foreign exchange, domestic credits and inputs;
- apply financial, fiscal and other incentives;
- provide entrepreneurial and technical support;
- ensure a generally improved environment and investment framework, enforced accordingly by appropriate legislation.

In promoting these strategies the role of HASIDA - the organization responsible for SSIs has, since the new economic policy, changed from regulation to promotion and support of small-scale and private industry, indicating a major reorientation policy towards the private sector.

Thus, a new Department for private sector, headed by a vice-minister has been created in the Ministry of Industry for the promotion and support of private sector.

To this purpose, an enabling environment and new permissive investment climate are being created. Foreign investment for joint ventures is encouraged.

d) Measures to Implement Strategies

However, a strong and sound process of promotion of SSIs development should be undertaken by the Government through carrying out the following measures promptly and practically:

a) investment promotion of joint ventures, export promotion;
b) facilitate the establishment of industrial estates;
c) initiate and develop ancillary SSIs;
d) encourage sub-contracting;
e) stimulate private consultancy;
f) provide extension services, technical assistance, business assistance and adequate training;
g) assist in product and market development; and last but not least;
h) ensure regular supply of both imported and local inputs as well as foreign exchange.

e) Accelerated Growth of SSIs

Accelerating the development and growth of SSIs and entrepreneurial capabilities could be realized through identification, elaboration and implementation of programmes and activities to apply measures for reaching the above strategic objective and removing the identified constraints.

The main focus of these programmes and actions would relate to the formulation and implementation of policy and legislative measures (including fiscal and financial incentives), strengthening of existing or establishment of new institutional machinery and identification, preparation and implementation of specific projects and activities.

The national strategies, policies and programmes should include the provision of support services and institutions specificaliy oriented towards the development and encouragement of indigenous entrepreneurship.

Taking into account both the existing and contemplated such strategies, policies and programmes, a brief presentation of institutional framework and several possible actions and procedures to expand private sector is made hereafter.

f) Institutional Framework for Promoting SSIs

The strengthening of the existing institutions and establishment of new ones for accelerating development and promotion of SSIs would include the following activities and procedures to be provided for the private sector:

- design and implementation of training programme and provision of industrial and technological information and extension services relating to technology selection and adaptation, plant management and maintenance and cost accounting;

- preparation of surveys of raw materials for the identification and preparation of SSIs projects and profiles;

- setting-up and operating of suitable arrangements for joint procurement of raw materials, intermediates and equipment; joint acquisition of technology; sub-contracting between SSIs and IPEs;

- carrying out of market surveys aimed at opening of new outlets for SSIs;

- design and operation of common facilities (workshops) for repair and maintenance;

- provision of common engineering design and production, R&D, standardization, quality control and testing laboratories;

- mobilization of financial resources and securement of loans and guarantees as well as tax and other fiscal incentives for SSIs;

- promotion of co-operation among SSIs not only at the national level but also outside the country.

g) A Nucleus of Private Replica in "Core Industries"

SSIs development projects in the basic metal and engineering, chemical and non-metallic mineral products sub-sectors require substantial investment depend heavily on imported inputs, demand new skills and tend to produce goods having relatively low level of manufactured value added. All these factors discourage diversification within the SSI sector.

However, the range of products manufactured by these sub-sectors is already considerable and has good prospects to widen since they are suitable for import substitution such as: cutlery, structural metal products, light machinery and tools in the basic metals and engineering sub-sector; shoe polish and laces, toilet preparations and insecticides in the chemical sub-sector; marble, finishing stones, building blocks and bricks in the non-metallic mineral products sub-sector.

h) Agro-based Industries and their Linkages in SSIs

SSIs should be oriented towards providing low-cost inputs to agriculture and consumer goods to the rural population engaged in agricultural sector thus improving farmers productivity and providing incentives for higher income generation.

SSIs in food processing industry, textile, leather and leather products should be encouraged since they could be identified for export promotion and would have strong backward linkages with the agricultural sector.

i) Export Promotion in SSIs

According to the present experience several SSis branches have good prospects for exports: metal working (mechanical parts, standard parts - pins, washers, spring etc.), chemical (essences, perfumes, glues etc.), leather and leather goods (upgraded hides and skins, leather coats, gloves, belts and shoes etc.), food processing (meat and meat products, beverages, cooking oil etc.), textiles (shirts, blouses, underware, bed clothing etc.).

j) Development of Industrial and Ancillary Areas

The development of SSIs is considerably stimulated and supported by the establishment of industrial estates and promotional zones.

Thus, basic physical and infrastructural facilities, services and utilities are provided at controlled rents for SSIs in such areas.

A model industrial estate was inaugurated in Addis Ababa in December 1989, upon the initiative of MOI, where 30 SSIs have been installed under a co-operative arrangements withe the Indian Government.

Similarly, ancillary industrial areas could be organized with the Government and IPEs (Industrial Public Enterprises) support around large-scale industries through various ways, including co-operative agreements with both national and foreign partners, twining arrangements, "institutional inter-linkage" etc.

k) Sub-Contracting Promotion

Another efficient form of supporting the development of the private sector is the promotion of sub-contracting arrangements between large-scale industries (IPEs) and SSIs.

By this way of support the development of skills and improvement in quality are facilitated in SSIs.

The main concept applied is the specialization of SSIs in manufacturing of certain products which would be provided at low-cost level as inputs of the larger units (IPEs).

In the case of metal-working branch its strong forward linkage will offer good prospects for such successful sub-contracting arrangements.

Medium linkages are also provided by other branches such as chemicals, textile and paper and printing. Important opportunities exist to accelerate industrial growth of SSIs through expanding economic linkages with IPEs both in service and maintenance functions and through complementary production, specialization and sub-contracting especially in leather and shoe making, garments, metal-working and mechanical engineering.

l) Promotion of Private Consultancy Services

In order to provide on a regular and prompt basis technical, managerial, banking and marketing services including development of exports, the Government may encourage and support the set up and strengthen of private consulting firms and offices.

m) Establishment of Focal Points for Private Sector

Special type of institutional framework could be developed at municipal or local level to support SSIs by improving their access to necessary resources and facilities. Such focal points could be specialized in providing certain kind of specific services: specially assigned bank offices for financial resources (domestic credits, loans) specialized warehouses for raw materials, intermediates and equipment; specially arranged energy schemes to supply power and other energy resources etc.

n) Identification of Specific Products

Another inovative strategy to promote SSIs would be to identify deliberately certain products to be manufactured in small-scale firms, e.g.: simple agricultural machinery, tools and implements; low-cost transport means (bicycles, tricycles, animal pulled vehicles etc.).

Many such products not involving high technology could be identified as they are vacated by more developed countries and would be mastered easily by local small-scale industries not only for import substitution purposes but also for export markets in the neighbouring countries or in the region. These products have to be carefully analyzed and adapted for promotion in SSIs.

Government investment in selected products manufacturing through joint venture arrangements may be also considered for development and subsequent sale to private sector industry.

o) Strengthening of Skills and Management Capabilities

Since (before the enactment of new policy reform) the private sector has been restricted in its access to technical skills and managerial capabilities, a massive application skills/capabilities is required to promote and support the development and growth of SSIs.

Various experience of other countries could be taken into account. Consequently, groups of experts and consultants from developed countries could be brought in to train the local technicians, engineers and managers.

p) Technological Support to SSIs

SSIs performance can be greatly improved both qualitatively and quantitatively, by providing training facilities and necessary R&D support.

The capabilities and learning capacity of SSIs can be improved considerably by developing a system in which they are provided access to modern technical knowledge, including improvements in specification and design.

Consequently, it is essential to set up Design and Tradining Centers at appropriate locations in each zonal planning offices which should provide facilities in productivity improvement, training and diversification of production in the field of SSIs.

q) Promotion of Handicrafts

Alongside SSIs, a wide range of traditional handicrafts are practised in small workshops, using labour intensive techniques. Three major activities seem to dominate this sub-sector: tailoring, weaving and basketry.

Handicrafts play an important role in the rural economy through their household enterprises, being the main suppliers of manufactured goods for most of the rural communities.

HASIDA has supported the development and expansion of handicrafts by organizing craftsmen into co-operatives, most of them in urban areas. Through these co-operatives the Government can now upgrade skills and promote new products developing the handicrafts sector gradually into SSIs. In this respect the newly set up department in MOI could be instrumental in applying such supportive policy.

3.5 Revitalization of Industrial Public Enterprises (IPEs)

3.5.1 Overview

There have been public industrial enterprises in Ethiopia even before the advent of the Revolution albeit they were few in number and limited to certain capital intensive industries and/or industries which, of necessity, had to be heavily capitalized which the private sector could not support by itself.

Consequent to the policy pursued by the Government since the Revolution, however, the industrial sector is now dominated by public enterprises which can be classified into two major groups according to their supervising bodies:

- those that are under the supvervision of the Ministry of Industry (163) of which we shall refer as Industrial Public Enterprises (IPEs);

- those that are under the supervision of other ministries (41) such as the Ministry of State Farms Development, the Ministry of Construction, the Ministry of Energy and Mining to which we shall refer as other public enterprises.

The IPEs account for about 80% of the gross value of production and 90% of total employment in the public sector. Other public enterprises operate mostly in two sectors: food and chemicals. The latter includes the refinery at Assab which accounts for 81% of total other public enterprises production. The public sector contributes about three fourths and the private sector about one-quarter of total manufacturing value added.

Table 3.5.1

OVERVIEW OF THE INDUSTRIAL SECTOR: KEY STATISTICS (1984/85)

	Public		Private SSEs	Total Ind.Sector
	IPEs Under MOI	Other IPEs		
Structure:				
Number of Ent.	163	41	7,684	7,888
GVP (million Birr)	1,890	743	409	3,042
Share of VA (%)	58	16	26	100
Share of GDP (%)	5.1	1.5	2.4	9.0
Total Fixed Capital (million Birr)	878.7	134.6	229	1,242.3

3.5.2 Performance of IPEs

It is true that before attempting further large-scale efforts at industrialization, the first priority must be rehabilitate, modernize and revitalize existing industries.

The performace of IPEs in developing countries, particularly in Africa, leaves much to be desired. The origins of the problems point to a variety of deficiencies in among others, macro-economic policies, sector and/or sub-sector structural features, technical and mangerial capabilities etc.

The yardsticks against which performance of enterprises should be measured are equally varied: level of utilization of existing capacity, level of productivity, input-output ratios and consumption co-efficients are but a few of the measurement criteria, the bottom line being of course, profitability.

In Ethiopia, though utilization of existing capacity has been satisfactory up to the recent past there have always been room for improvement even in capacity utilization and other aspects of enterprise performance like production, costs of manufacture, dependence on imports and profitability.

3.5.3 Objectives

The objective of the Decade Programme in this respect shall therefore, be to increase capacity utilization of the industries to upto 90% consequent to which volume of production should increase and costs of production should decrease; to improve inter-sectoral and inter-industry linkages in order to reduce their financial performance so they would become profitable.

While relieving bottlenecks, replacing obsolete equipment, introducing preventive maintenance systems and manufacturing parts locally could be effected at enterprise, sub-sectoral, sectoral levels, macro-economic policies might also be needed to bring about the needed change. Macro-economic policies could be in the area of regulatory policy issues, pricing, interest rates, exchange rates, wages and incentives etc.

In order to attain the above objectives and make existing investments produce and pay for themselves therefore, existing industrial enterprises ought to be revitalized. Revitalization shall be made to include rehabilitation and restructuring using the following strategies.

3.5.4 Strategies

- conducting diagnostic surveys of existing industries for identification of specific sector/sub-sector/enterprise problems and their ideal solutions;

- conducting macro-level studies for identification of structural problems and their possible solutions;

- co-ordinating inter-agency/inter-mininisterial activities for the purpose of alleviating or even mitigating problems of local raw material supplies, of cash flows, of matters pertaining to labour problems, of transportation of goods to and from sea ports and from state farms and rural markets.

3.5.5 List of Rehabilitation/Expansion Projects

1. Blanket Factories Reh./Exp.
2. Babile Mineral Water Factory Reh./Exp.
3. Addis Ababa Cigarette Factory
4. Akaki Textiles Factory
5. Modjo Tannery Reh./Exp.
6. Addis Nazareth Stretch Flour Mills Reh./Exp.
7. Winery Factories Reh./Exp.
8. Dire Dawa Textile Factory Reh./Exp.
9. Shoe Factories Reh./Exp.
10. Household Ustensils Factories Reh./Exp.
11. Car Battery Factory Reh./Exp.
12. Furniture & Joinery Factories Reh./Exp.
13. Kaliti Stell Factory Reh./Exp.
14. Spice Extraction Factory Expansion
15. Essential Oil Factory Reh./Exp.
16. Bahir Dar Textiles Factory Reh./Exp. Ph. II

List of Priority Rehabilitation/Expansion Projects Planned to be Implemented During the First- Half of the Decade

1. Project Name: Blanket Factories Rehab./Exp.
Location: Addis Ababa, Akaki, Asmara
Product: 1,329,880 pcs of Blankets/year (Additional)
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	9	22	31
W. Capital	2	2	4
Total	11	24	35

2. Project Name: Babile Mineral Water Factory R/Exp.
Location: Harar
Product: 3.6 Mill. Bottles of Mineral Water (Additional)
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	2,334	3,181	5.515
W. Capital	-	-	-
Total	2,334	3,181	5.515

3. Project Name: Addis Ababa Cigarette Factory R/Exp.
Location: Addis Ababa
Product: 3 billion pcs. of cigarettes (Additional)
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	19	35.4	54.4
W. Capital	7.7	11.8	19.5
Total	26.7	47.2	73.9

4. Project Name: Akaki Textile Mills Reh./Exp.
Location: Akaki
Product: 10 mill. sq. mtrs. of fabrics (additional)
Investment magnitude in mill Birr:

	Local	Foreign	Total
Fixed	7.7	34.6	42.3
W. Capital	-	-	-
Total	7.7	34.6	42.3

5. Project Name: Modjo Tannery Expansion
Location: Modjo
Product: 750,000 pcs. additional
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	-	0.750	0.750
W. Capital	2.0	-	2.000
Total	2.0	0.750	2.750

6. Project Name: Addis-Nazareth Stretch Flour Mills Reh./Exp.
Location: Addis Ababa, Kaliti, Debre Zeit
Product: 55,000 tonns of flour and 7,200 tonns of pasta
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	36	61	97
W. Capital	31	-	31
Total	67	61	128

7. Project Name: Wine Factories Reh./Exp.
Location: Addis Ababa
Product: 20,000 hectolitres (Additional)
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	14.5	25.1	39.6
W. Capital	2.3	1.0	3.3
Total	16.8	26.1	42.9

8. Project Name: Dire Dawa Textile Mill Reh./Exp.
Location: Dire Dawa
Product: 13,900,000 sq.m. of fabrics (Additional)
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	20	92.5	112.5
W. Capital	28	-	28
Total	48	92.5	140.5

9. Project Name: Shoe Factories Reh./Exp.
Location: Addis Ababa and Asmara
Product:
Investment magnitude in mill Birr:

	Local	Foreign	Total
Fixed			
W. Capital			
Total			

10. Project Name: Household utensils Factories Reh./Exp.
Location Addis Ababa & Asmara
Product:
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	9.2	9.1	18.3
W. Capital	10.4	2.2	12.6
Total	19.6	11.3	30.9

11. Project Name: Car Battery Factory Reh./Exp.
Location: Addis Ababa
Product: Phase I 50,000 pcs.
Phase II 65,000 pcs.
Phase III 80,000 pcs.
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	6.5	4.6	11.1
W. Capital	0.6	3.2	3.8
Total	7.1	7.8	14.9

12. Project Name: Furniture & Joinery Factories Reh./Exp.
Location: Addis Ababa & Asmara
Product: Birr. 44 mill. worth of additional furniture
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	9.2	9.1	18.3
W. Capital	10.4	2.2	12.6
Total	19.6	11.3	30.9

13. Project Name: Kaliti Steel Factory Reh./Exp.
Location: Kaliti
Product: 167,000 tonns of various items
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	12.4	55.8	68.2
W. Capital	6.6	15.3	21.9
Total	19.0	71.1	90.1

14. Project Name: Spice Extraction Factory Reh./Exp.
Location: Addis Ababa
Product: 6,500 tonns of extracted spices
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	5.6	11.4	17.0
W. Capital	-	-	-
Total	5.6	11.4	17.0

15. Project Name: Essential Oils Factory Reh./Exp.
Location:
Product: 3,000 kg. of lemon grass
1,750 kg. of geranium
2,150 kg. of eucalyptus
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	0.25	0.20	0.45
W. Capital	0.02	0.01	0.03
Total	0.27	0.21	0.48

16. Project Name: Bahir Dar Textile Factory Exp.
Location: Bahir Dar
Product: 34,534 sq. meters of fabrics
Investment magnitude in mill. Birr:

	Local	Foreign	Total
Fixed	14.9	60.7	75.6
W. Capital	7.4	2.0	9.4
Total	22.3	62.7	85.0

3.6 Development of Core Industries

The structure of industry has been dominated by the production of light consumer goods. The three largest industrial branches (i.e. Food, Textiles and Beverages, in that order) account for over 60% of the total value of industrial production and about 65% of the total manufacturing value added; on the other hand, core industries like basic metal and engineering industries as well as chemical industries are at a very low level of development.

In order to create self-reliant and self-sustained industrial base in the country, it is imperative that due consideration be given to the development of such core industries like basic metal, engineering and chemicals. The development of these industries will enhance the development of other sectors particularly agriculture, transport, construction and mining. It will also serve as a spring board for rapid industrial development through the enhancement of indigenous technological capability.

Accordingly, the development of core industries has been accorded priority in the industrial development programme of the country. The programme will focus therefore, among others on basic metal and engineering industries, basic chemical industries as well as non-metallic mineral products industries, especially building materials.

3.6.1 The Basic Metal and Engineering Sub-Sector (BME)

a) Overview

The basic metal industries are those producing primary ferrous and non-ferrous products such as forging, casting, sections and sheets, using local scrap and imported billets. The engineering industries comprise those making finished goods, including fabricated metal products--tools, pots and pans, cutlery, spare parts, light metal structures; electrical and non-electrical machinery; vehicles and materials handling equipment. Inputs to these industries include some locally sourced primary products but are mainly imported semi-processed primary products. There are some 23 state-owned plants under the supervision of the National Metal Works Corporation, which are under the control of the Ministry of Industry. These factories fall under the following five groups:

- Construction Materials (4);
- Household and Office Furniture (7);
- Agricultural Machinery and Equipment (4);
- Household Utensils (4);
- Engineering Industry (4).

There are also other three factories which are organized as share companies where the corporation represents the Government. These are:

- Automotive Manufacturing Co. of Ethiopia (AMCE)
  (These are assemblers of FIAT trucks, mini buses etc.);
- Ethiopian Crown Cork Factory;
- Ethiopian Spring Factory.

Car batteries and plastic coated electric wire and cable manufacturing is under the National Chemical Corporation, another corporation of the Ministry of Industry and the Ethiopian Airlines manufactures a crop spraying aircraft under license from a US company.

Excluding the very small workshops there are about 25 such establishments in the private sector.

Gross value of output of public sector engineering industries was estimated at 187 million Birr in 1987/88, representing almost 95% of the sub-sectors output and 7.5% of the output of Ministry of Industry Corporations or about 6% of GDP of Industry (Ministry of Industry plus other public sector manufacturing plus private sector manufacturing).

During 1986/87, the sub-sector contributed 36 million Birr of value added at factor cost of 6.5% of all the value added generated by the state industrial sector supervised by the Ministry of Industry, compared with 26%, the highest generated by the textiles sub-sector and 5.5% the lowest by the tobacco sub-sector.

In terms of profitability it had a 12% profit before tax/sales performance, six sub-sectors having achieved less than that while another three had scored better.

Historically, the BME sub-sector has provided much of its product for agricultural application and some basic household goods. Much of what is operating today was in operation prior to 1974, when it has nationalized. There is as yet no MBE enterprise based on exploitation of domestic natural resources although small quantities of local raw materials, such as foundry and are used in certain processes. The principal investments in the sub-sector have taken place since 1984. This has been channelled into new projects, notably the Nazareth Tractor Factory, the Akaki Pumps Factory. the Agro-Aircraft Plant, the Kotebe Sickles Plant and the Kaliti Grain Mill Plant.

In the main, however, development has been held in check. This has been due mainly to the shortage of foreign currency with which to obtain both capital plant and raw materials for production. The sub-sector is characterized by an import substitution approach.

b) Development Objective

Embodied in the overall industrial development objective listed in Chapter II is also the development objective of the BME industries which is briefly stated below:

1. develop a profitable sub-sector which is capable of manufacturing quality capital, intermediates, and consumer goods which also makes a net foreign exchange contribution to the national economy;

2. strengthen and promote linkages with the agricultural, construction and transport sectors;

3. develop the sector's design, engineering and research capabilities;

4. increase productivity through training and investment.

c) Proposed Strategies

In order to attain the foregoing objectives within a reasonable period of time it is intended to promote the following strategies:

1. rationalization, restructuring and expansion of the National Metal Works Corporation as a manufacturer of capital and intermediate goods;

2. encouraging the private sector by rendering it all possible technical support services and facilitating its administrative matters in order to make it have confidence and trust in the New Economic Policy to enable it play its due share in the development of the sub-sector, especially with regard to meeting demand for light consumer goods etc.

3. rendering technical training targeted at identified BME sub-sector needs;

4. inspiring the Government to establish appropriate levels of import protection which do not discourage production cost control, product quality or export initiatives;

5. continuation and strengthening of the policy of encouraging development of international joint ventures;

6. concentrating in the long-term on investing in developing and managing that range of core industries which includes:

   - steelmaking, rolling mill;
   - ferrous and non-ferrous foundry products;
   - other metal based intermediate products;
   - vehicles assembly and vehicle spares with increasing levels of integration;
   - construction plant and equipment;
   - internal composition engines and pumps;
   - electric motors;
   - hand tools;
   - machinery and machine tools and spare parts;
   - heavy electrical equipment.

7. dirting the corporation of the household and office utensils divisions.

d) Investment Programme

To this effect there are now four projects under construction and/or nearing completion with a total investment value or about Birr 207 million, another three projects ready for construction with a total cost of investment exceeding Birr ten million and a pipeline of more than 15 project that are now at various stages of pre-investment phase and earmarked for implementation during the period 1991-95.

For implementation during period 1996-2000 there will be a sufficient number of projects identified, which exercise has already started.

Table 3.6.1

PROJECTS RECENTLY COMPLETED OR UNDER CONSTRUCTION

Project	Investment (mill. Birr)
Complete/Under Construction	
Akaki Spare Parts	173.0
Kakiti Grain Mills	12.0
Crown Cork & Can	2.1
Engineering Design Centre	19.0
Total	206.7
Ready for Construction	
Water Canteen & Mess Kits	1.8
Small-Scale Factories	n.a.
Akaki Pump Expansion	8.4
Total	10.2

Table 3.6.2

PIPELINE PROJECTS FOR IMPLEMENTATION DURING 1991-1995

Project	Value (mill. Birr)
Pilot Foundry	7.30
Kotebe Tools Factory Reh.	3.50
Tractor Factory	35.00
Improved Farm Implements	76.00
1st Electronic Goods	16.00
Machine Tools	73.00
Structural Steel Plant	
Lower Power Diesel Engines	
Akaki Rolling Mill Exp.	
Kaliti Metal Works Reh.	
Electrical Machinery	10.00
Multi-Purpose Workshop	73.00
Can Making Factory	12.60
Lead Pencil Factory	10.00
Electric Lamps	14.00
Dry Cell Battery Plant	24.00
Household Appliances Reh.	

3.6.2 Can Making Factory

The agricultural sector plays basic functions in the economic development of the country by providing food production, substantial employment opportunities, major source of raw materials for industry, primary contribution to foreign trade and capital acumulation as well.

It has now been accepted that the most effective way of development is an integrated approach, particularly the agriculture industry linkages bringing agricultural and food production into a mutually interactive and supportive relationship with the industry.

In this respect, the new economic reform policy is placing a great attention to developing further this type of relationship by accelerating the production of primary and secondary industrial inputs to agricultural and food production, as well as by stimulating expansion of industrial sub-sectors processing agricultural products.

This is also the particular case of the food industry which has to be strengthen to increase its present share of almost 23 per cent of the manufacturing sector output. Within food processing industry prospects for export of meat and meat products are good both owing to the country's considerable livestock and increasing demand on domestic and foreign market.

The expansion of meat processing activities will rely on the strongest backward linkages to the economy and lowest level of import dependance with only 13 per cent of import inputs.

Such linkages between Basic Metal/Engineering Sub-Sector and Food processing industry sub-sector are to be strengthened by expanding canning and other kinds of packaging facilities for which there is an increasing demand.

The Ethiopian Livestock and Meat Corporation-ELIMCOR, which operates six meat processing and packaging facilities, has been plagued by high production costs including unreliable deliveries of packaging products impairing its profitability and export potential. ELIMCOR is currently trying to solve such problems by - among other things - expanding and upgrading its canning facilities, also needed for other types of food processed products (tomato paste, juices, jam and vegetables).

Record indicating only relatively limited and old canning units at the Melgue Wondo Estate Vegetable (Stated in 1930/40) and Incoda (1953), while later-established canning facilities are at Chandris in Dire Dawa and Sarice in Asmara.

The other export oriented factories, such as Sopral Asmara, Sopral Kombolcha and others import formed can to be filled with product and than export. Therefore, they totally rely on import of ready made cans as the manufacture of cans really was not considered.

As the demand for canned products was rising, especially during the last decade, the bulk import of cans entailed considerable expenditure of scarce foreign exchange. As a matter of fact, the idea of a can making project emanated and a feasibility study was conducted as back as 1982. Since then the project study has been amended several times and the implementation schedules reworked. Contract for the construction was made and local loan was rewarded, however, owing to limited resources of foreign exchange the project has as yet not been implemented.

The can making factory has the following major objectives: saving of foreign exchange, creation of new employment opportunity and mainly supplying the cans needed not only by ELIMCOR, but also by other food processing factories. The factory will be established in Kombolcha town in the Southern Wollo Administrative Region about 400 km. North-East of Addis Ababa and 600 km. from Assab port.

This location is centrally situated to the canning factories, in an industrial town with adequate facilities and easy access to Assab port.

The total production capacity of the factory is of 40 million pieces of 240 grammes per an 8 hour shift working in two shifts.

The total investment cost is 12.6 million Birr while the total projected revenue that can be generated is 18.8 million Birr.

3.6.3 The Chemical Sub-Sector

a) Overview

The chemical sub-sector is one of the youngest sub-sectors in the country's industrial activity. The nucleus of this sub-sector is the National Chemical Corporation (NCC) one of the ten corporations under the Ministry of Industry.

The corporation is now managing and controlling 11 factories manufacturing basic consumer goods and intermediate goods like soaps, detergents (including sodium hypochlorite), paints, plastics, floor waxes, shoe polished and sodium silicate.

There are other seven chemical factories under the supervision of the Ministry of Mines and Energy Resources, Defense and Health apart from private holdings manufacturing soaps, cosmetics, tyre-retreading and the like.

Table 3.6.3

PROFILE OF PLANTS IN THE CHEMICAL SUB-SECTOR*

Sr. No.	Product Grouping	No. of Plants	Production Capacity Tonns/yr.	Remarks
1.	Soap and Detergents	6	33,000	
2.	Paints	2	8,000	
3.	Plastics	3	4,000	One plant is under the Ethiopian Beverage Corpn.
4.	Pulp and Paper (Carton)	2	15,000 (estimate)	Under the Ethiopian Printing Corporation
5.	Tyres	1	-	Share Co.
6.	Industrial Gases	3	2,000 (estimate)	One Co2 plant under the Ethiopian Beverages Corpn.
7.	Floor Waxes and Shoe Polishes	1	300	
8.	Sodium Silicate	2	1,000	
9.	Matches and Candles	1	-	Under the National Tobacco & Matches Corpn.

* Excluded are plants under the Ministries of Health, Defense and Mines and Energy Resources and also under private holdings.

Gross value of production of the National Chemical Corporation in 1987/88 was estimated at 118 million Birr or 5.3% of total gross value of production of all corporations and share companies under the Ministry of Industry. During the same year gross value of production at market prices of all chemical products under the ministry was estimated at 179 million Birr or 8% of the total. Thus, we see that during that year the National Chemical Corporation accounted for about 66% or two-thirds of the total production of the state chemical sub-sector while in terms of employment its share was 3% of the total employment of the Ministry of Industry sector of the economy.

In terms of raw material consumption by value of the corporations and share companies under the Ministry of Industry, chemical products accounted for 9% of direct and 1% of indirect raw material consumption during 1986/87.

The corporation accounted for only 0.5% of total exports of the industrial sector during the above year.

Value added at factor cost generated by chemical products was estimated at 58 million Birr representing 11% of the total industrial sector during 1986/87. This compares with six sub-sectors that have registed less than 9% each and the textiles, food and beverages sub-sectors that have registered 26%, 20% and 13%, respectively.

Table 3.6.4

THE CHEMICAL SUB-SECTOR/KEY STATISTICS 1986/87

	Million Birr	Of Share of MOI Section
Gross value of prod. (NCC)	118.0	5.3
Gross value of prod. all chemical products (MOI sector)	173.0	7.8
Employment (NCC)	-	3.0
Raw material consumption (all chemical prod. MOI sector)	-	10.0
Exports (NCC)	-	0.5
Value added at f.e (MOI sector)	58.0	11.0

b) Development Objective

The broad objectives of the NCC, which is expected to spearhead the development of the national chemical sub-sector, are the the following:

- to organize, manage and operate Government owned undertakings engaged in the manufacture of chemical products and chemical raw materials;
- to engage in the manufacture of chemicals and chemical related products such as salt, soaps and detergents, plastics, paints as well as industrial gases;
- to produce agricultural inputs such as fertilizers and pesticides;
- to produce industrial inputs such as caustic soda and sulphuric acid;
- to carry out R&D activities in the areas of import substitution, export promotion and capability building;
- to increase its share of industrial output from the present level of about 8% to 25% during the decade.

c) Strategies

In order to attain the foregoing objectives the corporation has been following and will continue to follow the following strategies:

- rehabilitate and expand existing factories so as to optimize utilization of capacities and to reduce overhead costs per unit of production;
- establish medium-scale chemical plants to manufacture basic consumer goods;

- establish large-scale and integrated chemical industries to manufacture basic inputs for other sectors of the economy;

- develop human resources so as to have in-house capability to carry out the projects thus envisaged;

- encourage participation of foreign potential investors (partners) in the development of the sector;

- develop chemical industries that largely depend on domestic raw materials;

- export possibilities of exporting processed chemical products so as to help generate at least part of the foreign exchange that the development of the sub-sector needs.

To this effect there are now 3 projects of rehabilitation and expansion of existing plants underway, 4 new projects under implementation and other 7 projects whose feasibility studies are at different stages of preparation, as shown here below:

Table 3.6.5

NATIONAL CHEMICAL CORPORATION
PROJECTS IN PIPELINE

		Capacity tonns/yr	Investment mill. Birr	Expected Commissioning Date
A.	Rehabilitation and Expansion Projects			
1.	Soaps and Detergents	15,000 Additional	n.a.	1993
2.	Salt	160,000 Additional	n.a.	1994
3.	Plastics		n.a.	
B.	New Projects Under Implementation			
1.	Caustic Soda (from Soda Ash)	10,000	50	1991
2.	Aluminium Sulphate/	13,600+		
	Sulphuric Acid/	14,000+		
	Oleum	5,000	55	1993
3.	Alkyd Resin	750	11	1991
4.	Pesticides	1,500 Liquid		
	Formulation Plant	1,500 Dust	12	1993
C.	New Projects Under Study for Implementation			
1.	Sulphonation Chemical	2,000 tons	7.0	1993
2.	Buiomass Chemical	1,000 tons	6.0	1993
3.	Castor Oil & Derivatives	3,000 tons	4.0	1994
4.	Automotive Batteries	65,000 units	13.7	1993
5.	Bone-Based Chemicals	30,000	13.5	1993
6.	PVC Pipes		n.a.	
7.	Fibre Reinforces Plastics		n.a.	

The development of the sub-sector during the Second Industrial Development Decade will largely focus, however, on large-scale and integrated chemical projects revolving mainly around two core industries. These are:

1. Natural Gas-Based Fertilizer Complex and
2. Chlorine and Chlorine-Based Chemicals Complex.

1. Natural Gas-Based Fertilizer Complex

The awareness that fertilizers are one of the major inputs that would increase the productivity of the agricultural sector and help the nation's efforts in food self-sufficiency has spurred the NCC to conduct various studies on the possibility of establishing a fertilizer complex and Ethiopia. To this effect several studies have been conducted and one of these completed only in July 1990 was the "Conceptual study--Nitrogen Fertilizer Factory in Ethiopia".

The study examines the overall economies of a proposed nitrogen fertilizer factory designed to export a portion of the Ogaden natural gas reserves and thereby replace some or all of imported nitrogen fertilizer products with domestically produced nitrogen fertilizer (urea).

Fertilizer is of particular importance to Ethiopia because agriculture is the main stay of the national economy.

The proposed factory will be located in the town of Gode, in the Ogaden. A pipeline which will approximately be 120 kms will be used to deliver natural gas to the plant site. The water requirements of the complex will be met from the near by passing Wabi-Shebelle river.

The complex will have a capacity of:

Ammonia Unit	450 tpd (148,500 t/y);
Urea Unit	765 tpd (252,300 t/y); and
Nitric Acid Unit	30 tpd (9,800 t/y 100%).

An earlier study has indicated that the domestic demand for nitrogen fertilizer (urea) would reach 330,000 tones by the year 2000 and that of diammonium phosphate 670,000 tones, bringing the total demand to 1 million tones. Hence, the proposed complex should be viewed in light of this demand.

Total investment cost of this complex is estimated at about US$200 million of which US$193 mill. is for fixed investment and about US$7 million is for working capital.

2. Chlorine and Chlorine-Based Chemicals Complex

Fundamental transformation of the chemical sub-sector and by extention of the industrial sector can only be brought about when basic chemicals (intermediates) can be and actually are domestically produced thereby creating the conditions for other industries to flourish. With this in mind the NCC is in the process of developing a chlorine and chlorine-based chemicals complex which will be totally based on locally available raw materials, namely:

- common salt,
- limestone,
- coal.

Common salt is abundantly available from the waters of the Red Sea where from the country exports salt and limestone and coal by exploiting the huge commercial deposits whose availability has been ascertained by the appropriate national agencies. The proposed complex is planned to make the following products in the respective capacities shown:

Product	Annual Capacity (tons)
PVC	20,000
Chlorine	14,000*
Caustic Soda	15,000*
Hydrogen Chloride	13,000*
Calcium Hypochlorite (Bleaching Powder)	2,500
Acetylene	9,000*
Calcium Carbide	25,000*
Sodium Hypochlorite (10% Solution)	1,000

* Includes quantities produced for capitive use within the complex.

It is believed that there is sufficient domestic demand for the marketable products.

Total investment cost of this complex is estimated to be in the order of Birr 500 million.

Envisaged total investment by the NCC during the decade amounts therefore to almost 1 billion Birr.

3.6.4 Non-Metalic Mineral Products Sub-Sector

a) Overview of the Sub-Sector

Building materials is the basic production of the non-metallic minerals sub-sector. Cement industry which leads in terms of quantity - accounts for almost all of the new investments in the branch over the last decade expanding production capacity 5 times at a 17 per cent average annual growth rate while the whole sector registered 3 per cent.

Previous regulation in the housing construction together with financial constraints inhibited business in these activities which accounted for only 4,000 houses annually under the Government's programme.

The new housing policy - introduced in March 1990 which allows the private construction ownership, sale and rental of house - will definitely stimulate the demand for building materials production which stagnated lately. Consequently, the projects for future development of the sector are good and especially for the private small-scale construction enterprises.

Cement is the leading production of the sector accounting for over 60 per cent of the MVA in the building materials branch. Three plants are currently operational: Addis Ababa (built in 1964), Eritrea - at Massawa (1965) and Mugher (1983).

As a matter of fact, at the Mugher Cement Factory two development phases have been completed during the late 1980s. The first one has doubled its initial capacity reaching a total output of about 300,000 tonnes per year.

The second phase of the development of the project has re-doubled again the output capacity of the factory to almost 600,000 tonnes per year as of present.

Now the otal amount of annual cement production at the country level is about 720 - 750,000 tonnes.

At the Mugher factory a feasibility study is to be carried out for pozolana and Portland cement production at the existing factory.

Both Addis Ababa and Eritrea Cement Factories, with a capacity out of 70,000 tonnes per year each, have experienced falling in production, incurring large losses and facing technical production and maintenance problems. It is intended to rationalize their output in the long-term.

In order to provide an increased quantity of raw materials necessary for the future development expansion of cement production, a raw material survey is now under way by the Ethiopian Institute for Geological Surveys (EIGS).

The Ethiopian Construction Material Corporation - ECMC co-ordinates the production activity of seven Addis Ababa factories producing cement blocks, pipes and tiles, mainly used under the Government's housing programme.

There are also over 20 other small-scale private sector firms manufacturing such products as well as fired clay bricks located in Eritrea, Gojjam, Hararghe, Shoa and Wollo Administrative Regions. Their output is used by the private construction firms.

The decline in the production of building materials (more than 10 per cent for cement, almost 50 per cent for clay bricks and over 55 per cent for cement floor tiles during the mid- 1980's) was due to lack of materials - cement, fuel etc. - and low demand.

It is hoped that the new housing policy will reactivate the construction activity and subsequently the demand for building materials will raise while small-scale private sector could recover again.

In order to stimulate this trend, new definite inputs are urgently necessary mainly under the form of technologies and quality control, local investment and foreign exchange through new development projects in this sector.

In this respect, a technical assistance project in the development of appropriate technologies for low-cost construction materials is needed combined with improved standardization of production methods and enforcement of quality control and laboratory testing measures.

Lime is currently produced by the Ethio Lime Factory in Senkele and sold as such.

The factory has experienced high running cost and efficiency has dropped by more than 50 per cent.

The gross lime production has decreased by more than 10 per cent during 1980s, reaching 4,000 tonnes per year in 1988.

Marble exploitation and use is under the authority of the Ethiopian Marble Industry - EMI (from 1983), together with other decorative stones - as granites and dolomites - used in construction activities in the country.

The marble production has increased almost four times in the first five years of the past decade while its potential capacity could reach about 140,000 m2 annually.

At present three major quarries are currently in operation: Bale, Gulele near Addis Ababa and Nefas Silk in Harar.

A UNIDO project is under way aiming at increasing capacity production of the quarry in Harrar by about 70 per cent next year, that is over 1,500 m3 annually.

Under the same project an ornamental production unit will be established.

Ceramics products are under the management of the Ethiopian Cement Corporation - ECC, Ministry of Industry.

Ceramic wall and floor tiles, refractory bricks and some ware are produced at the Tabacchi Franchitti and Rossi in Asmara, managed by ECC since 1988. The factory is over fifty years old, equipment obsolete and running cost high. A complete overhaul of the factory is under implementation to revitalize it and increase its production.

Tabor Ceramics Products Factory is a new development project currently under construction in Awassa with a production capacity of 3,000 tonnes of wall tiles, 2,000 tonnes of sanitary ware and 1,000 tonnes of table ware per year. It is expected to be completed in December 1992.

Glass, the most used non-metallic mineral product outside the building sector, accounted for 20 per cent of total production value within the branch in the mid- 1980s.

Addis Ababa and Asmara Glass Factories operated by EBC are the main producers of glasses and bottles. While the gross output of bottles has grown almost 3 times in the first half of the past decade, the glasses ouput has decreased in such a way that the combined production of glasses and bottles has declined dramatically to 15.5 million in 1988. Old equipment and lack of inputs among which soda ash along with technical and technological problems have caused such a situation.

Export of beverage sub-sector seem to have good prospects and consequently, the increase and diversification of bottles production would be advisable in the next years. Poor quality and high production cost are the major constraints of the present production.

In spite of the fact that the country possess all the necessary raw materials for producing sheet glass, this product is totally imported for construction use.

Having in mind the good potential prospect for the increase in construction activity, a sheet glass plant project is recommended to be developed, its contribution to saving foreign exchange being considerable.

The initial intended production of pottery household products was limited to coffee cups made at present by the Ethio-Pottery Plant established in 1974 and now under the supervision of the Ministry of Mines.

A rehabilitation was proposed by UNIDO some years ago to expand production by the construction of a new production line for the manufacture of elctrically heated hot plates.

As the other small-scale private firms manufacturing coffee and cooking pots and injera baking plates near Addis Ababa (at Gaffarsa, Katcheny and Legedadi) operate at a handicraft level only, a rehabilitation project for the Ethio-Pottery Plant sounds advisable, including the line proposed by UNIDO.

b) Problem Encountered

1. Quality of building materials is a basic requirement for an efficient development of building construction activities, primarily in housing, strengthening sectoral relationship;

2. Capacity utilization of many of existing building materials factory, especially cement lime, bricks and cement blocks;

3. Standardization, quality control and laboratory testing problems;

4. Technical as well as maintenance problems in terms of inappropriate technology, obsolute equipment, spare parts availability etc.;

5. High running cost of production and large losses;

6. Shortage of skilled labour, especially technologists and operators in higher technical level operations;

7. Shortage of technical and managerial services especially for the small-scale enterprises private sector included;

8. Shortage or unrithmic deliveries of raw materials like cement, soda ash and fuel;

9. Decline in the internal market demand;

10. Shortage of investment and working capital both in local currency and foreign exchange.

c) Development Objectives

The broad objectives of the Non-Metallic Mineral Products Sector and of its basic branch Building Material Industry are:

- to improve organization, management and operation of the public enterprises engaged in the manufacturing of the non-metallic mineral products and especially of the building materials;

- to increase the production of cement, glass products including manufacturing of sheet glass, ceramics products industries (under the super-vision of MOI) as well as of cement blocks, tiles, pipes and other cement products, bricks industries (under the supervision of the Ministry of Construction) through both establishment of new development projects and rehabilitation of existing capacities;

- to raise the production of cement by 20-30 per cent to provide the necessary inputs both to cement products industry and construction activities in the public and especially private housing sector;

- to improve productivity of the existing production public capacities through their rehabilitation and modernization, including training and investment;

- to contribute to foreign exchange saving and earning;

- to promote a wide base of small- and medium-scale private firms, especially in the construction materials branch of the sector;

- to increase the productive efficiency in the sector and primarily in the building materials branch through increased capacity utilization, input-output ratio and productivity of the existing enterprises;

- to raise the financial efficiency of the sector and primarily of the building materials branch in terms of cost-effectiveness and generation of surpluses;

- to contribute to employment generating;

- to train building materials industry labour, technologists, marketers and allied professionals both in the country and abroad;

- to expand exploration and production of mineral raw materials for the building materials industries;

- to expedite the process of raising the necessary investment capital from local and foreign sources - including possibilities of joint-ventures with internationally reputed companies - in the production of non-metallic minerals and especially building materials with good prospects for export as cement, marble and other decorative stones etc. in neighbouring and other countries;

- to develop the sector's design, engineering and research capabilities.

d) Strategies

- to rehabilitate, remove bottleneck and expand capacities with building materials factories;

- to develop building materials industries depending on deomestic raw materials;

- to increase the MVA and foreign exchange earning not only through higher processing state of raw materials but also through import substitution, as local sheet glass production of new established development project;

- to optimize exploitation, capacity utilization and utilization of skilled labour;

- to assist and encourage private small-scale firms with supply of critical raw materials and intermediary inputs, rendering of technical support services;

- to establish production joint-ventures with prestigeous foreign firms;

- to introduce and develop a preventive maintenance system, including spare parts production and distribution;

- to improve the technical capacity, replace obsolete equipment, select, assimilate, transfer and develop appropriate technologies to diminish technological dependance;

- to develop human resources so as to have in-house capability to carry out the projects as envisaged.

1. Rehabilitation of the Addis Ababa Cement Factory

The existing Addis Ababa Cement Factory was completed in 1964. Its total production capacity is of 70,000 tonnes of cement per year, but it was reached very rearly and for short periods of time.

The factory has experienced frequent falling in production, incurring large losses and facing technical production and maintenance problems.

In order to overcome these problems it is now intended to rationalize its output through a rehabilitation project, changing technologies, replacing old equipment and parts, improving the working conditions so that productivity could be raised and the designed production capacity could be reached on a regular basis.

2. Rehabilitation of the Ethio-Lime Factory in Senkele

This is currently the only one factory under operation for lime production.

Since it is experiencing high running cost, low efficiency - which has droped by more than 50 per centr - obsolete equipment and technology and technical problems its production has decreased and the quality of the product has declined.

In order to cope with such problems and constraints, increase production and improve quality a rehabilitation project is now under consideration.

3. Dire Dawa New Cement Factory

A new development project was initiated in the cement industry located in Dire Dawa.

The new Dire Dawa Cement Factory will have an annual production capacity of 600,000 tonnes of cement. The project is at an advanced stage of design works under the supervision of the Ethiopian Cement Corporation - E.C.C.

The magnitude of the investment is about Birr 152 million for the local cost and Birr 120 million for foreign component cost, while the working capaital is estimated at Birr 22,074 and Birr 9,460 respectively.

This project was initiated through a joint agreement with USSR but was kept pending lately.

4. Dire Dawa New Lime Factory

The new development project located at Dire Dawa Old Cement Factory Site has a projected annual lime production capacity of 120,000 tonnes and is expected to be completed in three years.

At present, the New Lime Factory is under tendering and contracting stage and comes under the supervision of the Ethiopian Cement Corporation.

The local cost of the project is estimated at Birr 17 millions and foreign cost at 23.1 millions, while the working capital at Birr 2.4 millions and Birr 10 millions respectively.

In the second phase of the development of the project the rehabilitation of the old Dire Dawa Cement Factory is to be undertaken so its cement production could come again into operation at a later stage.

5. New Sheet Glass Factory Project

Taking into consideration that Ethiopia has all the necessary raw materials available for producing its own sheet glass, the fact that there are good prospects for increase in construction activities and the need for saving foreign exchange, a sheet glass development project was highly recommended under the E.C.C.

The new project is therefore, included in the National Porgamme for IDDA-II with total estimated cost of Birr 57 million (UNIDO preliminary estimation).

At present, neither the location nor the output capacity are precised yet.

The project is currently under feasibility study stage on the basis of a contract signed in early 1990.

Presently, all national demand for sheet glas is being met only by imports involving considerable foreign exchange spending, while there is a currently increasing demand of sheet glass consumption. That called for the immediate establishment of this new development project.

The availability of necessary raw materials - i.e. silca sand, dolomites, soda ash and lime stone - is under final stage of investigation by the Ethiopian Institute for Geological Survey with financial support of SAREC.

The market study of the project is also carried out by I.P.S.

Since the project is based on local mineral resources, it would also enhance the capability of exploiting and using indigenous resources and thereby strengthen the sectoral relationship.

6. New Bottles and Glasses Factory

Since the previous rehabilitation of Addis Ababa Glass Factory did not improve significantly its performance and due to the fact that the expansion of beverage industry - including exports - would require a considerable increase in bottle manufacturing, it was decided that a new bottles and glasses factory will be established.

A draft contract for a feasibility study from the I.P.S. is currently under revision and evaluation.

The new development project is under Ethiopian Cement Corporation. Its production capacity, location and investment cost are to be established on the basis of the feasibility study.

The factory will be the second producing bottles and glasses in the country.

7. A New Low-Cost Tuff Blocks Facility Study

The new housing legislation will stimulate and increase contruction activities in this field calling for more supply in building materials, low-cost ones included.

An investigating study indicated that the cost of tuff blocks would be 50 per cent lower than that of fired bricks while the energy consumption would decrease about 85 per cent making them a low-cost material which could be easily available locally in considerable quantities.

A feasibility study to facilitate an appropriate decision on an eventual new development project to produce such tuff blocks is recommended.

3.7 Development of Human Resources

a) Overview

On the onset of the Revolution industrial labour force stood at about 51,000. Due to the expansion of the industrial sector by way of rehabilitation and modernization of existing factories and construction of new ones since then, total industrial labour force today stands at about 81,400. However, professionals and semi-professionals account for only 6% of this total, while 80% have education below grade 8 of which some are barely literate. A survey conducted earlier showed that even in occupations traditionally designated as 'skilled', such mechanics, quite a good number of workers have no formal education but merely picked up their skills on the job.

Serious shortages of skilled manpower are recognized in several occupations. To mitigate this unwelcome situation, the Ministry of Industry and the corporations under it, in addition to the in-house and out-of-house skill upgrading training progammes they conduct, continuously make efforts to recruit university and vocational school graduates. This practice, though has helped a lot to temper the situation has not been able to solve the problem entirely for shortfall of supply relative to demand (Table 3.7.1).

Table 3.7.1

MINISTRY OF INDUSTRY
DEMAND AND SUPPLY OF PROFESSIONAL AND SEMI-PROFESSIONALS
IN THE PUBLIC MANUFACTURING SECTOR 1980-1984

Educational Institution & Graduates	1980		1981		1982		1983		1984		Total		Short falls for the 5 years
	D	S	D	S	D	S	D	S	D	S	D	S	
From Universities													
Degree Holders	177	44	132	63	169	35	124	64	100	39	702	245	457
From Higher Institutes and Colleges Diploma Holders													
Polytechnic/ Tech.School	245	74	224	102	200	98	239	180	475	370	1,383	824	559
Others	128	22	82	25	137	33	164	59	108	23	619	162	457
Total Dipl. Holders	373	115	320	127	396	212	438	323	592	411	2,119	1,188	1,016*

D = Demand
S = Supply
* = Excess supply not taken to offset demand in other disciplines.

Table 3.7.2

MINISTRY OF INDUSTRY
DEMAND AND SUPPLY OF PROFESSIONAL AND SEMI-PROFESSIONALS
IN THE PUBLIC MANUFACTURING SECTOR 1985-1989

Educational Institution & Graduates	1985		1986		1987		1988		1989		Total		Short falls for the 5 years
	D	S	D	S	D	S	D	S	D	S	D	S	
From Universities													
Degree Holders	169	66	230	80	226	99	168	41	233	129	1,026	415	653
From Higher Institutes and Colleges													
Diploma Holders													
Polytechnic	126	69	-	-	355	67	127	109	167	32	775	277	498
Commerce	103	39	151	51	113	64	91	53	106	32	564	239	325
Universities	-	-	2	2	4	2	1	3	10	5	17	12	5
Others	-	-	1	1	3	-	3	6	1	7	8	14	-
Total	229	108	154	54	475	133	222	171	284	76	1,364	542	828

Table 3.7.3

MINISTRY OF INDUSTRY
SHORT & LONG-TERM TRAINING AND STUDY TOURS CONDUCTED 1980-1989

Year	Overseas	Local	Remarks
	# of Trained Workers	# of Trained Workers	
1980	72	1,018	
1981	68	1,408	
1982	126	1,641	
1983	108	1,798	
1984	81	1,126	
1985	106	2,119	
1986	175	2,060	
1987	86	2,110	
1988	102	2,390	
1989	155	2,720	
Total	1,079	18,290	

Year	Study Tours # of participants
1980-1989	70

b) Development Plan

The following manpower development forecast is based on and aims at strengthening operational capability of the existing labour force and meeting the deamnd for skilled labour that future economic development would generate.

Industrial progress depends largely on the availability of a sufficient number of capable professionals and executives with the relevant managerial and functional knowhow in order to effectively discharge their responsibility for planning, controlling, coordinating and evaluating the activities of enterprises. Shortage in managerial and professional personnel limits and even disrupts the range of development activities in project planning, implementing and evaluation regarding the selection, acquisition and adaptation of technology to local social and economic conditions. In the process of skill formation the focus of attention on technical progress cannot be at the expense and neglect of manangement development. Both the quality of management and the level of technological development have a bearing on the performance on the enterprise. Since both the technical and human elements are key elements for enterprise performance, it is necessary to upgrade the skills of managers as well as individuals and professionals who are strategically positioned to interact successfully with problems related to the performance and development requirement of the industrial sector. Through the training of such key elements in industrial labour force it is inteded to:

- ensure a steady growth in labour productivity and industrial output;
- improve the competitive position of the industrial sector;
- achieve a certain degree of mastery on technological self-sufficiency.

Therefore, the immediate objective of this project is to prepare through local and overseas training over a period of ten years the skilled manpower required for:

- renovation of old plants;
- expansion of existing plants;
- establishing new factories;
- introducing modern technology and improving techniques of production;
- new structural adjustment made as a result of the new economic policy
- establishment and expansion of institutions and facilities for training, technical information;
- consultancy services research and development;

- replacement of skills cost due to natural wastage retirement, death, permanent injury and transfer of workers.

The long term overseas training will aim at enhancing the leadership, research, and innovative capability of executives and professionals and register technological break through, and includes three categories:

- professionals going for post-graduate studies in the field of engineering, economics, human resources, planning, and management;
- trainers who should be more proficient and qualified to reproduce skills relevant to industry;
- technologists in various fields of speciality such as brewary, maltry, milling, spinning, etc.

Table 3.7.4

Ministry of Industry
Training Programme
(Abroad: 1991-2000)

A. Short-term	No. of Participants	Duration	Level of Skill of Trainees	Man Year	Cost 1,000 Bi
1. Management, Professional/ economics, semi-Profes- finance, etc. sionals.	1724 647	3-6 mths 48,900			
2. Specific Tech- 3-6 mths nology	239	637 18,100			
B. Long-term					
Management, eco- Professionals nomics, engine- ering, finance systems, etc.	350 525	1-2 yrs 39,700			
C. Study-tours					
Familiarization Professionals with Technologies	300 35	4-8 weeks 4,700			
Total	1,466	111,400			

Table 3.7.5

Ministry of Industry

Training Programme*
(Abroad: 1994-2000)

A.Short-term Level of Particip.	No.of Participants	Duration	Level of Skill of Trainees	Man Year	Cost 1,000 Bi
1.First line Managers	1,000	4-8 weeks	Professional/ Semi-Professionals	115	2,250
2.Middle level Managers	640	" "	"	74	1,440
3.Top Managers	660	" "	Professional	76	1,485
4.Executives	210	" "	"	24	473
			Sub-Total	289	5,648
5.Workers below** Supervisory Level	17,600	" "	Skilled/ Semi-skilled	203	29,600
B.Long-term (Post-graduate)					
1.Social Science	30	2 years	Professional	60	-
2.Technology	30	2 years	Professional	60	-
3.Natural Science	30	2 years	Professional	60	-
			Sub Total	180	
			Grand Total	2,500	
			Short-term courses		45,248

* Various modules in management science
** Mechanical, electrical, process, etc. on the job training

We could therefore discern from the foregoing that based on the plan premises of today a total of almost 4,000 man years is estimated to be expended on formal education and skill upgrading of the industrial labour force during the decade, which amounts to not more than 5% of the available time and costing about 160 million Birr.

This estimate, viewed in light of the expected doubling of the strength of the labour force during the programme period, would not be sufficient to meet the needs of the industrial sector. Hence, resources permitting, more of the labour force must be trained.

c. Problems and Constraints

Like in all other developing countries lack of trained or skilled manpower is one of the various contraints the Ministry of Industry is trying to tackle in an attempt to realize the rich potential expected from the sector.

To this end, while effort is being exerted to train workers in collaboration with local and overseas training intstitutions, it often falls short of the desired expectations in alleviating the problems. This is mainly because the sort of training progamme that are usually designed are mostly general in scope and are not tailor-made to the specific and concrete requirements of the sector.

Assessment and analysis of training needs and pre-evaluation of training programme is not mostly practices in the corporations and plants under the Ministry.

More often there is lack of information about the type of training that may be available, its relevance to the needs if each corporation or plant concerned and where it is offered. Hence, preparation of plans and programmes for manpower development and fixing priorities on the basis of needs is a difficult task.

Data on manpower inventory are not reliable and not well organized, even difficult to obtain, because it is not regularly compiled and made available for use. Thus lack of basic information has increased the difficulty in determining training needs in many establishments.

The other constraints which limit the capability of corporations and plants to prepare efficient plans and programmes for manpower development is organizational weakness. In most of the manufacturing plants or corporations lack units and trained staff which have specialized in manpower training, development and implementation of training programmes is not given the attention it deserves.

Lack of standardization of occupational terms and their integration into a national system is also a drawback to the development of training standards in the sector.

Scarcity of funds and facilities as well as shortage of teaching staff are basic hindrances to the development of the manpower of the Public Manufacturing Enterprises.

d. Strategies

In order to implement the foregoing development plan of the Ministry with respect to manpower development, the problem which heretofore have constrained any possible dynamic development of this resource must be tackled. To do that, first and foremost the Ministry and the Corporations must institute systems by which:

- specific and conrete requirements of training needs would be identified and training modules defined;
- priorities would be set for different types of training;
- dependable and up-to-date data on manpower inventory would be kept;
- internal organizational weaknesses of the corporations would be dealt with;
- occupational terms would be standardized and they would be integrated into a national system;
- funds would be mobilized in sufficient amount and other infrastructural and logistical support services would be in place;
- training institutions both for long- and short-term purposes would be properly identified in light of their strengths and reputations;
- co-operation, existing or otherwise, with local institutions of higher learning and specialized training institutes would be fostered;
- in-house training capability at least in some fields of science (social/natural) and technology would be built.

3.8 Support Programme Projects

a. Overview of the Sector

The energy sector has an increasing importance for the development of the country's economy, reflected in the 12 percent share of the Government development expenditure under the Five Year Development Plan-FYDP (1989-94). More than 90 percent of the investment planned under FYDP pertains to electric power while 6 percent of petroleum and 2 percent to other alternative sources of energy.

The public sector covers almost entire generating capacity for producing electricity while 70 percent of this capacity is provided by hydropower stations. Awash II and II, Finchaa and Koka account for more than 65 percent of installed capacity. These and other power stations under construction will increase the electricity generating capacity to 700 MW in the next couple of years, electric energy produced by hydropower reaching almost 90 percent of the total.

While the hydropower over capacity is not accordingly used, there are areas like Eritrea greatly dependent on thermopower station with high running costs, including rehabilitation needs. The further extension of the Inter-Connected System (ICS) to the Northern areas will decrease considerably the imports of fuel oil.

Since only less than 3 percent of the hydropower generating potential is now used, the prospects for developing hydroelectricity production are very good. However, the ambitious plans of the Government to construct new hydropower stations are constrained by the lack of financing and infrastructure difficulties in addition to the electric energy surplus available at present.

Geothermal power potential is also good, with Langano as the most promising area for development.

Petroleum refining at Assab refinery provides 90 percent of the internal demand from imported crude oil. Since heavy oil fractions amount to large share of the refinery output, important quantity is exported while light oil fractions have to be imported, requiring considerable foreign exchange, about 25 percent of export earnings.

Oil exploration have not yet found any commercial reserve, Natural gas deposits indentified already in Hararghe Administrative Region are economically important in spite of their high investment cost due to lack of infrastructure. Their prospects are good for producing fertilizers and for use as industrial and household fuel.

b. Strategies

The major objectives of the sectoral development are rather limited in sector coverage, being more related to implementation of main projects and programmes than to element of a policy framework.

The sectoral development objectives strategy outlined in the public investment programme included in the Five Year Development Plan-FYDP (as the last phase of the Ten-Year Perspective Plan) are:

- To expand reliable electricity service to urban industrializing and rural areas, while optimizing the profitable utilization of hydropower surplus including exports to neighbouring countries;

- To increase petroleum refining capacity and establish a national petroleum reserve; and

- To expand the use of renewable energy sources.

The development of energy sector partain to the strategy of emphasizing and developing physical infrastructure of the national economy enabling other sectors and primarily agriculture and industry to develop on the basis of energy sector inputs and intersectoral linkages.

c. Development Objectives:

1) to utilize profitably and distribute better geographically the oversupply of hydropower;

2) to improve energy planning administration including an integrated approach towards all major component of the sector;

3) to increase earning of foreign exchange, including energy exports;

4) to consolidate the policy and planning role of the Ethiopian National Energy Commission - ENEC to better serve the energy policy and planning activities of the sector and avoid dissagregation, conflicting development strategies and resource dissipation;

5) to develop an integrated planning for petroleum subsector and a petroleum planning function;

6) to improve and integrate planning for woodfuels development;

7) to improve planning and investment programming and overcome structural weakness of corporate planning and global economic planning for the sector;

8) to modernize pricing arrangements policy allowing demand action on final prices;

9) to establish joint-ventures for production, marketing and distribution of hydropower energy;

10) to strengthen technical assistance and training component of the energy sector;

11) to expand employment in the sector;

12) to develop prevent. maintenance;

13) to raise necessary investment capital to meet the implementation schedule

3.8.1. Energy Sector Projects Planned

Large investment in hydropower development is advisable only in conjunction with demand and profitable use of present hydropower surplus.

a) Electric Energy

1. Hydropower

The specific projects proposed to be implemented for electricity supply expansion are generally sound and critically meeting the specified increasing demands of proposed new industries or of household sector.

In this phase of power system development the Government had to take maximum advantage of large scale hydropower surpluses to strengthen and expand on a priority basis - supply to urban areas to satisfy the demand of the new investment projects as well as household consumption practically at a low marginal cost.

High investment cost involved in diesel electric generation in Eritrea is to be avoided by expansion of high voltage transmission lines extending hydropower supply to that area.

The existing hydropower surplus could be also profitably utilized through larger power sales contracts to neighbouring countries.

2. Hoha River Small Hydroelectric Power Station

A new development project is currently under advanced study stage to expand further hydroelectric power capacity by constructing a small hydropower station on Hoha river of 350 Kw capacity.

Its location is at Wollega and its preliminary estimated total investment cost is Birr 12.0 million local cost Birr 10.0 million while foreign exchange component 2.0 million.

b. High Volt Transmission Lines

Three new development projects are initiated to expand the network of high voltage transmission lines in order to provide electric power to new consumers in further region of the country. They will contribute to better use and proper geographical distribution of the electic power surplus now available from the hydropower station currently in operation.

1) New 132 Kv. Line: Wolayita Sodo/Arba Minch/Omo

This new high voltage transmission line of 115 km is to be built crossing Sidamo and Gamo Gofa Administrative Regions. One substation of 12.5 MVA is to be part of the project. Its total cost is estimated at Birr 25.9 million while the foreign exchange is Birr 13.1 million.

The project was contemplated to be ready by late 1990 but since financing was not yet secured, a new target date is to be set accordingly.

2) New 230 Kv. Line: Bahr Dar/Asmara

The new line is crossing from Goham to Eritrea Administrative Region with a total length of 600 Km and one substation of 50 MVA.

The total investment cost is Birr 140 million while the foreign currency component is Birr 98.0 million.

The project is expected to be completed in 1994 provided the necessary financing is obtained, especially the major foreign component.

3) New 230 Kv. Line: Ethio- bouti

The new high voltage transmission line will provide electric power to Djibouti exported from Ethiopia. The total length of the line is about 330 Km. including the construction of one substation of 18 MVA.

The total cost of the project is estimated at Birr 142.2 million out of which Birr 86.6 million is in foreign currency.

The completion date contemplated is late 1994.

c. Hydro Power Generating Stations Studies:

1) Large Rivers Hydro-Potential Study

The study is to analyse the hydro-power potential of large rivers of the country to identify locations and recommend project magnitude for several hydropower station to be built under a long-term approach strategy.

Foreign financing is sought to cover the foreign exchange cost (to be determined).

2) Small Rivers Hydro Potential Study:

The study is meant to evaluate the real hydro-power potential of small rivers appropriate to be used for producing hydroelectricity. The study is expected to identify locations and suggest project magnitude for several hydropower producing stations to be built under a mid-term approach strategy. Foreign financing is sought to cover the foreign exchange cost (to be determined).

d) Geothermal Power:

A New Geothermal Power Generating Station is now planned to be built with a 5,000 KW capacity located in Shoa Administrative Region.

Its preliminary total estimated cost is Birr 10 million while the foreign exchange component cost of Birr 8.0 million is to be obtained from a foreign partner/investor. The project is expected to be completed in late 1991.

e. Petroleum Subsector Development Plans

The major objective of the Petroleum Subsector is - on a short-term basis - to increase the supply of higher refined products through upgrading production capacity, debottlenecking of the existing refinery in Assab, and improve and modernize crude tanker berthing facilities as well as ancillaries.

Long-term Plans provide for the development of a strategic reserve of petroleum involving a considerable expansive project. Expansion of the Assab Refinery is considered as well as the construction of a products pipe line from Assab to Addis Ababa. While expansion of the refinery at Assab remains a long-term objective of the petroleum subsector due to fragile evidence of economic benefits, smaller size projects are also considered to be developed instead. In addition, there is a need for a new coherent petroleum subsector strategy to analyse the impact of the commercial exploitation of new discovered gas reserves in Ogaden, besides its linkages with future development of chemical industry and agricultural sector (fertilizers, pesticides, etc.)

At present, there is sufficient justification for improving conditions in the port of Assab, including upgrading regular storage facilities - partly rehabilitation and partly expansion.

1. Investment Projects

The Ministry of Mines and Energy intends to develop new projects under the petroleum subsector according to short-term and long-term development plans.

1.1. Short-Term Plans

Refinery Expansion

LPG Capacity Upgrading

There is short term plan to double the LPG production capacity of the Assab Refinery from the present capacity of 6,000 to 12,000 Metric Ton per annum. The additional investment cost of this upgrading is expected to be 1 to 1.75 million Birr.

Debottlenecking of the Existing Refinery

The capacity of the existing refinery can be raised from the present 800,000 to 1,000,000 metric tons per annum at a cost of 34 million in accordance with recent studies.

Crude Tanker Berthing Facilities and Ancillaries

The existing crude tanker offshore mooring facilities serve tankers upto 40,000 DWT metric tons only whereas all crude supply berths require a minimum load of 80,000 DWT metic tons. In view of this and the fact that the final crude oil price will be reduced if bigger tankers namely above 80,000 DWT metric tons were used it is expedient for EPC to erect such a facility with a further expansion of its crude and fuel oil storage capacity by 40,000 and 10,000 metric ton respectively. This project is envisaged to cost 40 million Birr.

Erection of a Secondary Conversion Unit

EPC is currently exporting 200,000 metric tons of fuel oil and importing 220,000 and 80,000 metric tons of automotive diesel oil and jet fuels respectively. Studies have shown that it pays to convert the fuel oil to increase middle distillates. Such a unit will cost in the region of 30 million Birr.

e) 1.2. Long-Term Plans

Assab/Addis Ababa Products Pipleline

Studies have shown that the petroleum products transport system, i.e. by road and rail, are inefficient and costly and should be replaced by pipeline. This project even though capital intensive costing about Birr 600 million has a pay-out period of 6-7 years only. EPC therefore finds it necesary that this project be pursued if and when funds would be available.

An Inland Refinery

EPC has a long term plan to build a second inland refinery which would serve cater for the petroleum needs of the Central, Western and Southern parts of the country while the existing would serve the Northern, Eastern and Coastal areas. This refinery would have an initial capacity of 1 million metric tons per year. The investment would be in the region of 120 million Birr.

f) Natural Gas Subsector

The commercial deposits of Ogaden enable the development of linkages with the chemical industry subsector in providing necessary raw materials and energy resources to develop the national fertilizer production capacity, at its turn, strengthening the linkage with the agricultural sector. The use of natual gas as industrial and household fuel is also envisaged.

3.8.2 Transport and Communications Sub-Sector

Overview of the sub-sector

This sub-sector is guided and supervised by the Ministry of Transport and Communications. Surface, maritime, and air transport regulatory agencies and public commercial enterprises are organized on the basis of the modes of transport that are in use in the country today as are the agencies in the communications line.

Accordingly, there are now 12 regulatory operational agencies and commercial enterprises under the sub-sector. These are:-

a. Surface Transport

1.Road Transport Authority (Regulatory Agency)
2.Public Transport Corporation (Commercial)
3.Freight Transport Corporation (Commercial)
4.Ethio-Djibouti Railway Co. (Commercial)

b. Maritime Transport

1.Marine Transport Authority (Regulatory Agency)
2.Ethiopian Shipping Corporation (Commercial Ent.)
3.Maritime and Transport Services Corporation (Commercial)

c. Air Transport

1.Air Transport Authority (Regulatory)
2.Ethiopian Air Lines (Commercial Ent.)
3.Admas Air Service (Commercial Ent.)

d. Communications

1.Ethiopian Telecommunications Authority (Regulatory/Commercial)
2.Ethiopian Postal Service (Regulatory/Commercial)

Modern transportation in Ethiopia is dominated by road transport. It accounts for about 94% of freight and passenger transport.

Telecommunication services have seen major expansion since the Revolution. At present major urban centres in most of the country's administrative regions are served through microwave system while telecommunication satellite has been put in operation for communicaton with the outside world.

The sub-sector's contribution to GDP is in the order of 6.3%. Public investment in the sub-sector during each of the past five years to 1989 has averaged Birr 290 Million which was about 26% of total public fixed investment carried out during the same period.

e. Probleming of the sub-sector

- Old age of freight and passenger transport vehicles;
- Shortage of spare parts;
- Shortage of vehicle maintenance facilities;
- Lack of maintenance of roads;
- Port facility constraints

f. Development Objectives

- to render dependable and expedient transport and communication;
- domestic and international services.

g. Strategies

- Major acquisition of transport (passenger freight) vehicles, aircraft and shops;
- Construction of sea ports and air ports;
- Development of animal drawn carts in cooperation with the Ministry of Industry;
- Training of drivers and mechanics.

h. Investment Projects

Investment projects earmarked for the five year period, 1989/90 - 1993-94 cover all the modes of transportation and communication.

The total value of investment is estimated at 2129 million Birr of which 60.4% is in foreign exchange. Modal breakdown is Birr 524.1 million (24.6%) for road transport; Birr 179.6 million (8.4%) for railway transport, Birr 417.8 million (19.6%) for maritime transport, Birr 587.6 million (27.6%) for air transport; and Birr 419.9 million (19.7%) for communication.

Major projects planned for the five year period are the fcllowing:-

i. Maritime Transport

1.Construction of more berths at Assab and Massawa ports;

2.Acquisition of 2 cargo ships.

j. Air Transport

1. Construction of new and/or major expansion/maintenance of Asmara, Lalibella, Assab, Gondar, and Axum airports;

2. Construction of hungars for wide-bodied aircraft;

3. Construction of new run way at the Addis Ababa Bole International Airport;

4. Acquisition of wide-bodied passenger and cargo and agricultural chemicals spraying aircrafts.

k. Surface Transport

1. Addis Ababa-Assab new railway line construction project design and partial construction.

l. Communications

1. Building additional 99,500 lines for individual subscription;

2. Converting operator exchanges at 25 towns into microwave exchanges;

3. Providing 150 rural towns with telephone services;

4. Establishing a microwave communication system for direct contact with two neighbouring countries.

CHAPTER IV

MODALITIES FOR FORMULATION, IMPLEMENTATION, AND FINANCING

4.1. Modalities for Formulation

For the purpose of formulating the National Industrial Development Programme, embodied in this very document, the Ministry of Industry, in its capacity as the government agency responsible for the industrial development of the country, has established a working group, assigned a national co-ordinator, and fielded and ECA-financed national expert since mid-July.

In light of the importance of directly involving the operative units of the Ministry care has been taken to consult the respective decade development programmes of the industrial corporations whose sub-sectors have been identified as priority areas for the decade programme, which the Ministry then has reviewed and streamlined with the overall National Industrial Development Programme.

Care has also been taken to ensure that this programme is an integral, albeit more-favoured, part of the National Industrial Development Plan which therefore should enhance the chances of its implementation.

4.2. Modalities for Implementation

For the purpose of sound implementation of the program the Ministry of Industry, even as this program is being developed, is concurrently designing strategies. Accordingly, the following strategies are believed to be appropriate for the purpose.

4.2.1. Strengthening the recently established Engineering Design and Tool Centre for the purpose of developing national capability in designing spare parts, small implements and auxiliary machinery and equipment.

4.2.2. Strengthening and consolidating the recently commissioned Akaki Spare Parts Factory for the purpose of fabricating necessary factory spare parts and factory auxiliary equipment, especially required in light of rehabilitating existing factories.

4.2.3. Continuing, with redoubled effort, the Ministry's practice of organizing workshops, seminars and other similar means of delivering training.

4.2.4. Developing in-house capability for preparing and implementing projects while continuing to encourage the emergence of national consulting capability by utilizing their services.

4.2.5. Fostering the existing strong co-operative spirit between the Ministry and the Addis Ababa University i.e. "Industry-University Co-operation Program" for training, joint research, and similar purposes.

4.2.6. Fostering the existing co-operative spirit between the Ministry and the Ethiopian Management Institute for purpose of delivering functional management skill upgrading courses.

4.2.7. Encourage and give full support to the private sector to unleash its full potential for the development of the industrial sector.

4.2.8. Launch investment promotion campaign, both domestically and abroad, with the support of multilateral agencies and private consultancies.

4.3. Modalities for Financing

The investment magnitude of the priority projects alone is estimated at about Birr 4 billion of which about Birr 2.5 billion will be in foreign exchange, equivalent to US$ 1.3 billion.

Given the meagre export earnings of the country and the dire-need for foreign exchange that emanates from the other economic and social sectors of the economy it is totally unimaginable that this program would be financed from internally generated foreign exchange. Accordingly, it is envisaged that a multiplicity of sources should be tapped. It is earnestly hoped that the recently introduced New Economic Policy would encourage mobilization of foreign interest in joint-ventures as well as in direct investments here.

Hence, all potential domestic as well as foriegn sources like the treasury, local banks particularly the specialized Agricultural and Industrial Development Bank, bilateral sources, regional financial institutions like the African Development Bank, multilateral agencies like the World Bank and its affiliate the IDA, the OPEC fund, etc. should be tapped.

4.3.1. Proposals for Modalities of Financing

The implementation of the National Programme under IDDA II calls not only for more financial resources but also for new types of financing at both the national and international level.

Since in Ethiopia the public sector plays an important role in the manufacturing industry both in terms of ownership and investment expenditure, for the new priority projects initial capital investment may be financed by state allocation provided in the annual budget of each project or from capital share subscriptions and/or borrowings. Agricultural and Industrial Development Bank could provide credits for the implementation of both public and private industrial projects. Subscription to the share capital of the new enterprises to be set up or of the existing ones to be rehabilitated through the proposed projects may be opened to both domestic and foreign subscribers and provided to the public as well as private industrial projects.

As regards the needs for working capital commercial loans could also be provided by the Ethiopian Commercial Bank.

Domestic financial policies should be re-oriented towards mobilizing financial resources for the specific proposed projects improving the functioning of financial intermediaries to complement Government efforts directed at increasing mobilization of domestic savings.

The Ethiopian Government is to mobilize better internal financial resources through effective and efficient tax or revenue earning measures or through the implementation of fiscal, industrial and other policies stimulating savings and investment.

To this aim, it is very useful to enlarge and strengthen the Agricultural and Industrial Development Bank as the main national specialized industrial development bank and to set up and develop such new other banks as well, to mobilize savings for industrial investment, in general, and for the specific IDDA II-related projects, in particular.

Precise measures have to be taken on each concrete project proposal to encourage private investments - particularly by nationals and also expatriates including wide popularization of the project profiles and their financial needs, especially the foreign exchange component.

Special promotion campaign to inform domestic and foreign industrial partners and investors has to be organized.

A complete inventory of potential national investors residing in Ethiopia and abroad could be compiled in order to make known to them the conditions regulated by the New Investment Code as well as the complete list of project proposals with all necessary details pertaining to them.

For this purpose, a special working investment meeting for IDDA II could be organized at the national level inviting all potential national investors - as a first phase of such mobilization for financing - followed later on by another one with the participation of foreign potential industrial and financial partners.

To supplement further the national financing, the assistance of international community, organizations and financial institutions - particularly with the support of UNIDO - is required in stimulating the necessary flow of external financial resources to the specific project proposed in the National Programme.

As a main feature, the nature and content of most of the proposed projects do not involve inherently massive investment, foreign exchange component being in general relatively modest. They are concieved as income - generating projects therefore stimulating foreign investment while all will have the necessary financial provisions ensured in the budget.

However, since many of such projects would not be highly profitable during the initial stage and the main purpose of establishing them is not primarily making profits from the very beginning but rather to promote industrialization, special consideration should be given to request preferably long-term loans with moderate interest rate charges.

This type of arrangement could be especially recommended for the core industry project proposals in Basic Metal and Engineering Sub-sector, Building Materials Branch as well as in Chemical Subsector since they are concieved to produce basic factor inputs for other sectors, agricultural sector included.

The projects proposed under the development of industrial exports - leather and leather shoes, textile and meat and meat products projects - are to use locally available raw materials by processing agricultural products - hides and skins, cotton and meat respectively - in order to produce goods which have already domestic market and selected foreign outlets.

In these cases long-term loans and credits are to be sought from national and foreign potential investors or donors.

In the cases of new industrial project producing industrial goods presently being imported from abroad - as it is Can Making Factory - with a view to promote trade as a means of earning foreign exchange, the terms and conditions for financial assistance could be similar to those in the international money markets with exceptions depending on the circumstances.

As regards the small-scale and handicrafts private industry project proposals they deserve special treatment in the provision of financial assistance owing to their unique position within the industrial sector and the need to develop and support private sector.

The ideal situation for them would be to mobilize grants from national partners but especially from foreign donors to cover the foreign exchange component.

In this respect, an inventory of most potential donors private persons and institutions would be very useful along with provision of detailed information to them on the New Investment Code of Ethiopia as well as on the concrete project proposals.

Special reference to and substantial communications on the specific IDDA II-related projects should be made to the U.N. Specialized Agencies, particularly ILO - for the human factor involved, UNCTAD and ITC - for the trade component and trade related industry promotion, UNESCO - for promotion of science and technology and UN Centre on Transnational Corporations - for attracting capital, technology and know how as well as for getting assistance in establishing linkages with technology intensive companies in developed countries. World Bank Group should be specially approached to submit specific project requests involving major financing.

Similar action should be taken with OECD and its Development Assistance Committee (DAC), including sending of pilot missions especially to assess the present needs of the private sector development in Ethiopia.

Various other forms of investment and co-operation could be taken into account (production-sharing contracts, joint ventures, turn key contracts, licencing agreements, international subcontracting etc.) when approaching both OECD and EEC as multilateral organizations.

Bilateral aid and support should be requested either directly to the respective countries governments - among which Italy, Germany, France - or through the sessions of the Joint Economic Commissions organized periodically with certain countries.

Special attention should be given to ODA financing including the national bodies involved as SIDA (Sweden), DANIDA (Denmark) etc.

Financing resources could be obtained from or through African financial and development institutions, at their turn assisted or strengthened by the international community, organizations and specialized financial institutions in mobilizing both domestic and foreign financial resources through guaranteeing loans, co-financing, etc. (ADB group, African Industrial Development Fund).

Having in mind that the Ethiopian external debt is most atributable to industry, when acquiring new loans and credits for financing IDDA II projects precautious measures should be taken that they are contracted on best possible terms.

As another source of financing, action should be intensified within the framework of the UNDP cycle to secure greater resources for the implementation and financing of the specific IDDA II - related projects under the National Programme. In this respect UNIDO and ECA should intensify negotiations with UNDP for the annual allocation of resources from the funds allocated by UNDP to "Special Programmes" for specific IDDA II related projects.

Enterprise to enterprise co-operation approach should be considered and intensified to enable promotion of Trust Fund arrangements similar to those experienced by UNIDO in the large-scale Thrust-Fund projects executed in certain African countries (as Libya and Nigeria).

A special action programme should also be prepared for the mobilization of financial resources from Non Governmental Organizations and private companies especially those for Africa, including even transnationals.

At the same time, UNIDO's proposal to set up a 'Special Fund for Africa" should be pursued vigorously.

International financial and development institutions, multilateral and bilateral financing and investment institutions including OPEC should be approached individually to readjust their lending policies on the specific IDDA II-related projects under the National Programme of Ethiopia by softening their terms and conditions on loans particularlry by lengthening maturity and grace periods.

Various donor countries - such as Japan, Republic of Korea, Singapore, India, certain Arab countries - should be approached on a bilateral basis to increase their financing for the specific IDDA II - related projects both through bilateral direct arrangements or contributions to the African Development Fund, the African Industrial Development Bank as well as other industrial development institutions in Africa.

Special attention should be paid to the Solidarity Ministerial Meeting organized in the last week of November in Addis Ababa, bringing together industrial partners and potential investors from major developing countries, to present also - along with the project proposals submitted already for the meeting - selected specific IDDA II-related projects included in the National Programme.

A Special Interministerial Task Force - SITF - reporting directly to the Government, composed by senior representatives from MOI, national banks, corporations, private sector etc. and headed by the leadership of MOI - should be purposely set up to implement modalities for financing. To this aim, SITF will be empowered accordingly to organize, carry out and finalize several financing mobilization tours to the UN system, other multilateral organizations and international financing institutions as well as to various suggested countries to present, support and justify all specific IDDA II - related projects as recommended in the National Programme.

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