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INDUSTRIAL DEVELOPMENT REVIEW SERIES

ERITREA

A new beginning

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CONTENTS

LIST OF TABLES AND FIGURES

TABLES

FIGURES

EXPLANATORY NOTES

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

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

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

The following abbreviations are used in this publication:

ACP	African, Caribbean and Pacific group of countries
BE	National Bank of Eritrea
CA	Customs Administration
CBE	Commercial Bank of Eritrea
CERA	Commission for Eritrean Refugee Affairs
COMESA	Common Market for Eastern and Southern Africa
EEA	Eritrean Electric Authority
EFMP	Economic and Financial Management Programme
EIC	Eritrean Investment Centre
EPC	Ethiopian Petroleum Corporation
EPLF	Eritrean People's Liberation Front
ERRA	Eritrean Relief and Rehabilitation Agency
FAO	Food and Agriculture Organization of the United Nations
GDP	gross domestic product
HSB	Housing and Saving Bank
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IGADD	Intergovernmental Authority on Drought and Development
IMF	International Monetary Fund
IRA	Inland Revenue Administration
NGOs	non-governmental organizations
NIC	National Insurance Corporation
OAU	Organization of African Unity
PFDJ	People's Front for Democracy and Justice
PGE	Provisional Government of Eritrea
PROFERI	Programme for Refugee Reintegration and Rehabilitation of Resettlement Areas in Eritrea
RRPE	Recovery and Rehabilitation Programme for Eritrea
SDR	Special Drawing Right
UNDP	United Nations Development Programme

PREFACE

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

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

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

The Review has been prepared by UNIDO on the basis of substantive contributions provided by Dr. Eugene Owusu and Mr. Tesfay Haile as consultants.

SUMMARY

Eritrea became a sovereign, independent state in May 1993, following a 30-year struggle spearheaded by the Eritrean People's Liberation Front (EPLF). At independence, the country was among the poorest in Africa, and indeed, with a *per capita* income estimated at between $130-150, it remains one of the poorest in the world. Critically, the Provisional Government of Eritrea (PGE), whose accession to power in 1991 followed the EPLF's victory in the prolonged conflict with Ethiopia, inherited a poor industrial and agricultural base, a severely damaged infrastructure and scant health and educational facilities.

Eritrea's misfortunes at independence, however, contrast markedly with the country's historical status and productive capacities. As a nation of skilled people and with a wealth of experience in entrepreneurship and commerce, a significant domestic industrial base had been developed as far back as the 1930s. But from the 1950s, following the country's annexation by and subsequent incorporation into Ethiopia, the domestic economy entered a phase of long-term decline, which was exacerbated by the adoption of a command economy by the military regime in Ethiopia after 1974. Crucially, all private assets, including land, housing and industries were nationalized. And the adverse impacts of the centrally-planned policies were compounded during the 1970s and the 1980s by the intensification of the war for independence, recurrent drought and famine and the lack of foreign exchange to import essential inputs.

Since liberation, the EPLF-led government has launched a major programme, underpinned by market-based principles and supported by the World Bank and Western donor countries, to rejuvenate the domestic economy. Since most industrial enterprises at the time of liberation were beset by acute shortages of raw materials, spare parts and indeed the lack of working capital - some enterprises had been idle for years - one of the government's immediate task has been to increase capacity utilization in industry in a bid to restore the supply of essential goods. Under the auspices of the Recovery and Rehabilitation Programme of Eritrea, the government has also accorded high priority to developing its own capacity to manage policies and key elements of macroeconomic management are being put in place.

The centrepiece of the government's medium- to long-term development strategy is the establishment of an efficient, outward-looking private sector-led market economy, with the public sector largely restricted to playing a pro-active role in stimulating private sector activities. A number of major reforms have already taken place, including an overhaul of the tax system, the promulgation of a new investment code and legislation governing land utilization. Key institutions are also being restructured, the public sector is being rationalized to make it leaner and fitter, and a new central bank - the National Bank of Eritrea - has been established to manage monetary policy. As part of the pursuit of market-based policies, the trading regime has been liberalized; critically, export marketing has been deregulated, and on the import side, import tariffs have been simplified.

Indeed, compared to its overall level of economic development, Eritrea is judged to have a relatively sophisticated, although largely dilapidated, industrial capacity. The development of Eritrean industry goes back to the last century; the colonial power, Italy, saw Eritrea as an offshore site of the production of manufactured goods and finished products for its domestic market. To this end, the colonial government made significant investment in light industry. Under British administration, post-1941, industrial strategy shifted to satisfying local consumption, the consequence of which was a rapid expansion in the output of basic manufactures. Thus by the early-1950s, the country had built up a solid light industrial manufacturing base, mostly processing agricultural products and construction materials. Thus, it comes as little surprise that Eritrea became the industrial heartland of federated Ethiopia. By the 1970s, Eritrea accounted for 35 per cent of aggregate industrial activity in Ethiopia; even at the height of hostilities, and in spite of a lack of both public and private sector investment, Eritrea still retained an almost 30 per cent share of total Ethiopian industrial production and continued to be one of the most industrialized part of Eastern Africa.

However, by 1991, many of the industries in Eritrea were operating at just one-third capacity and were in urgent need of foreign exchange to import critical spare parts and raw materials. In addition, many enterprises were heavily indebted, largely to Ethiopian financial institutions. Against this backdrop, after the war, the government had little choice but to give priority to the re-invigoration of existing enterprises. Overall, considerable progress has been achieved in increasing capacity utilization under the recovery and rehabilitation programme; as of September 1993, there was a total of 336 manufacturing enterprises operational, of which 42 were in the public sector and the rest were in the private sector.

But despite the gains, these enterprises continue to face a wide range of constraints, including limited access to foreign exchange, a poor infrastructure, severe shortages of power, run-down and obsolete equipment and a shortage of skilled personnel. Moreover, the domestic industry remains heavily dependent on imported raw materials and spare parts. And linkages within the domestic industry are limited. With the exception of a few items such as cement, glass and hides, there are few factories that use the output of others as their inputs and there are few examples of vertical integration outside the textile industry. Linkages between industry and agriculture are also weak.

Allied to the establishment of an open, private sector-led free market economy, the country's cardinal industrial objective is to create a modern, technologically advanced and internationally competitive economy within the next two decades. The aim is to develop industries and services which are capital and knowledge-intensive and oriented towards the export sector. Indeed, after years of the pursuit of ill-conceived inward-looking policies by the erstwhile Ethiopian government, it is hardly surprising that the government has identified export promotion as the main engine of economic growth.

Already a plethora of measures have been initiated aimed at promoting the development of exports. Reforms have included the establishment of a competitive exchange rate policy, the lowering of trade tariffs and taxes and the dismantling of restrictive export regulations. Additional measures are being initiated to promote exports in the short- to medium-term. These include the rationalization of export licences; further improvement in the foreign exchange allocation system; greater focus on rehabilitating sectors with export potential and where relatively small investments are required such as leather, shoe-making, salt, etc.; setting up entrepot facilities and establishing export processing zones as an instrument of speeding export development; and establishing and strengthening mechanisms for attracting remittances from Eritreans abroad on a long-term basis.

Given the lack of disaggregated industrial statistics, following over two decades of federation with Ethiopia, a comprehensive analysis of industrial growth and structural changes is next to impossible. According to composite estimates by the IMF and Eritrea's Ministry of Trade and Industry, the beverage sector represents the largest contributor to industrial activity, accounting for some 23 per cent of aggregate industrial activity over the 1992-1994 period. And between 1992 and 1993, industrial activity expanded by a robust 35 per cent, with the value of output rising to some 289 million birr in 1993. Most striking, however, is the fact that the expansion in output was broad-based, as leather and shoes, non-metallic, paper, printing and metal sectors recorded year-on-year growth in excess of 60 per cent; indeed, the metal industries saw a virtual doubling in output over the period.

Crucially, given over 20 years of socialist development under the Ethiopian regime, it is hardly surprising that the public sector dominates virtually every aspect of manufacturing activity. Most large- and medium-sized enterprises are under public ownership and presently a greater income contribution within the sector emanates from the public subsector rather than the private subsector; in terms of manufacturing employment, there is a 60-40 per cent split in favour of the public sector, although this belies significant differences across sectors.

Auspiciously, the government acknowledges that the management of huge and numerous enterprises is beyond its capacity, and thus has a standing policy to divest from most public sector enterprises. Yet, while the government remains committed to the privatization of public enterprises in the productive sector in a gradual and phased approach, no comprehensive time-table has been issued for the divestiture programme. Thus, until the privatization programme becomes functional, the public sector will continue to predominate, and industrial policy will remain focused on removing existing weaknesses required to make these enterprises economically viable and commercially profitable.

Agriculture is the mainstay of the Eritrean economy; it contributes some 40-50 per cent of GDP, and about 70 per cent of export earnings are derived from the sector. Yet despite the preponderance of the agricultural sector, Eritrea has failed to achieve food self-sufficiency and depends to a large degree on imports to meet domestic requirements. This makes agriculture and fishing not only significant in the on-going efforts to rejuvenate the economy but also the sectors hold significant potential for substantial profit generation by investors.

The main opportunities within the food industry lie in fruit and vegetable processing, the tobacco subsector and in fish and fish products. Presently, tobacco represents a major source of farmers' income, but particularly exciting is the subsector's undoubted potential as a significant foreign exchange earner; along the country's river banks lie extensive fertile areas which could be fruitfully tapped for tobacco production. But, with the country's heavy endowment of extensive resources of fish and other marine products, perhaps the biggest potential is to be found in the fishing industry, particulary for export. Yet, while agriculture as a whole presents modest opportunities for potential investors, with the sector remaining extremely vulnerable to the vagaries of the weather, it is highly unlikely that its potential can be meaningfully harnessed without the development of irrigation facilities. It is in this light that the large number of small-scale irrigation facilities which have begun to mushroom across the country represent a welcome relief for both the government and the country's overall prospects.

During the war, for the most part, it became impossible for cotton to be grown on a commercial basis. However, since 1993, the area under cotton cultivation has been increasing steadily to such an extent that in 1995 almost two-thirds of the annual demand of cotton by the textile industry was met from domestic production. Overall, there are three public factories that produce cotton yarn and fabrics and some ninety small-scale enterprises in the clothing industry. Of these, about seventy-five are engaged in the processing of sweaters from acrylic and wool yarns and the rest are engaged in the production of ready-made garments. Among the key problems afflicting the textile subsector is the prevalence of antiquated machinery and equipment. In the cotton plantations, there is an urgent need for a significant capital outlay for the acquisition of heavy duty machinery, including bulldozers and excavators to support production levels, while doum-fibre processing and sisal production require substantial initial investment.

Yet, despite widespread constraints, the textile subsector presents numerous opportunities. Principally, there exists an extensive coverage of doum-palm trees and abundant land that could be provided to potential investors on concessionary basis for sisal production. This could be complemented by the availability of abundant, and well-disciplined labour force. Moreover, amid Eritrea's strategic location and the largely infinite demand for cloth and uniforms in the subregion, an investment in the garment industry has the potential to yield handsome returns from both the domestic market and from exportation.

Although Eritrea is among the countries in the Horn of Africa endowed with a large number of livestock, it has yet to develop a substantial leather and footwear industry. Aside of capital constraints, the key problems include the inadequacy of veterinary services and the fact that the prevailing use of traditional skinning and skin handling processes increase the quantity of defective raw hides and skins supplied to the industry. In terms of prospects for the industry, livestock raising remains predominant in the country; a development reinforced by the fact that the greater profitability of livestock production *vis-à-vis* food crop production continues to encourage livestock breeding further. Overall prospects within the leather and footwear subsector remain good, supported by an existing platform which can easily be further developed to ensure adequate supply of raw material to meet production for both domestic use and for export.

Over several decades, the intensive utilization of wood for construction and for fuel combined with the adverse effects of recurrent drought has meant that, presently, less than 1.0 per cent of the country's total area is forested. The result is that the domestic wood and wood products industry depends almost exclusively on imported intermediate raw materials, including plywood, chip wood and formica. In a bid to redress the domestic supply gap, the government has launched both public and private afforestation programmes. In the short- to medium-term, given the virtual lack of domestic resources to underpin the subsector, the wood and wood products industry offers little prospects for investment.

Within the chemical and allied industry, undoubtedly, the biggest potential can be found in salt production. Eritrea has some 1,100 kilometres of coastal line along the Red Sea. Crucially, the high salinity of the Red Sea, combined with the large flat area bordering the sea and the presence of high temperatures to accelerate evaporation provide the potential for the country to become one of the largest salt producers in the world. Presently, Eritrea has two salt work factories at the country's two ports of Assab and Massawa, both of which are operating below their potential capacities. Backed by the on-going rehabilitation programme aimed at achieving full capacity utilization and to further promote exportation, production increased from some 43,000 tonnes in 1991 to over 300,000 tonnes in 1995. Some 86 per cent of the cumulative production over the period was exported. Despite exorbitant freight charges, which limit markets that can be served profitably, on-going expansion should continue to provide a major boost to the country's foreign exchange earnings.

Perhaps the biggest industrial potential of the country lies in the fact that Eritrea is rich in various non-metallic and metallic minerals. Granite, marble, slate, limestone, potash, sulphur, gypsum, silica sand are available in abundant quantities. And major metallic elements such as iron, gold, silver, copper, zinc, lead, nickel and chromium, amongst others, have been identified as potential deposits. Indeed, substantial quantities of gold are known to exist in the central highlands and in the southern Seraye region, while base metals have been found in the Asmara region. Moreover, commercial deposits of iron ore are known to occur widely, including the areas of Agemeda, Sabur and Wekiro. But these have yet to be commercially exploited. With the exception of some local scrap metals required by existing foundries, the entire raw material requirements of the domestic steel industry are imported.

A domestic machinery and transport subsector is practically non-existent in Eritrea, and the entire machinery and transport equipment needs are imported. Critically, against the backdrop of economic reconstruction, the value of machinery and transport equipment imports has increased by more than fivefold, rising from some 367 million birr in 1992 to 2 billion birr in 1994.

Although significant economic and structural problems remain to be addressed, few can deny the fact that Eritrea has made monumental strides since its re-birth. In particular, the successes achieved in correcting macroeconomic imbalances and steady improvements in the environment for investment and industrial development bode well for the country's medium-term prospects.

Yet, it is imperative that the country's still poor physical infrastructure and concomitant structural bottlenecks be overcome if it is to succeed in harnessing its undoubted potential in natural resources and the economic advantages engendered by its strategic location. In this respect, large infusions of donor support, combined with more robust foreign direct investment, remain crucial to underpin the country's continued reconstruction efforts and long-term development. Eritrea, Africa's newest nation, has set itself on a 'new beginning'. And prospects are high that the will and hard work of its people, as well as the increasing foreign interest being shown in the domestic economy, will eventually place it on the path of sustained industrial development.

I. THE MACROECONOMIC AND INDUSTRIAL POLICY ENVIRONMENT

A. RECENT ECONOMIC TRENDS

Economic trends pre-1991

After a 30-year struggle, the Eritrean People's Liberation Front (EPLF) finally achieved total control of the country in May 1991. The EPLF formed the Provisional Government of Eritrea (PGE) pending the holding of a national referendum on the issue of independence. The referendum was held on April 23-25, 1993 and resulted in overwhelming support for independence. Eritrea became a sovereign, independent state on May 24, 1993. The Eritrean People's Liberation Front transformed itself into the People's Front for Democracy and Justice (PFDJ) in February 1994 and has announced its intention to hold multi-party elections in 1997. A democratic constitution is currently being drafted which will guarantee basic civil rights and political pluralism.

The PGE inherited a poor industrial and agricultural base, a severely damaged infrastructure and scant health and educational facilities. At independence, Eritrea was the poorest country in Africa with one of the lowest average per capita incomes in the world at between $130-150 and an estimated 75 per cent of the population were surviving on international food aid.

Historically, Eritrea has been a nation of skilled people with a wealth of experience in entrepreneurship, commerce and international trade. During the 1930s, a significant industrial base developed and Eritrea became a successful exporting nation. During the Second World War, when imports from Europe to East Africa were disrupted, Eritrea supplied these markets. From the 1950s, the economy entered a phase of long-term decline which was exacerbated by the adoption of a command economy by the military regime in Ethiopia after 1974. All private sector assets such as land, housing, and industries, including those in Eritrea were nationalized. The adverse impact of the centrally planned policies which followed was compounded during the 1970s and 1980s by the intensification of war for independence, the recurrence of droughts and famine and the lack of foreign exchange to import essential inputs.

Indeed, periods of successive rule by Italy, Britain and Ethiopia all had a profound effect on the evolution of the Eritrean economy. Under Italian colonial rule, investment focused on developing basic infrastructure and agriculture with a view to supporting Italian settlers and exporting primary commodities such as coffee, cotton, sisal, tropical fruits and vegetables to Italy. In the 1930s, a large network of all-weather roads was created and airports were built at Asmara and Gura. The port facilities at Massawa were improved and industrial enterprises expanded. By the end of the 1930s, there were around 730 companies producing industrial goods and more than 600 construction companies. In addition, there were 850 registered transport companies and about 2,200 active trading companies. Mineral exploration was also begun at this time and mining of potash, magnesium, marble and copper was undertaken. An estimated 60,000 Italians lived in the colony and economic development stimulated rapid urbanization, the growth of an indigenous working class and the local acquisition of education and technical skills.

Britain assumed control in 1941 and ruled Eritrea with a view to serving the war effort. Substantial British and American military expenditures were made on ports, air bases, ammunition plants and storage depots. During the war, the economy expanded as Eritrea began to supply East African markets with products which could not be obtained from Europe. Recruitment of Eritreans into the civil service accelerated the creation of an intelligentsia and an indigenous press emerged. However, following the end of the war and the contraction in investments, the economy went into long-term decline. This trend was reinforced in the 1950s when Eritrea was federated with Ethiopia.

Direct rule by Ethiopia led to stagnation as the economic and political axis shifted to Addis Ababa. With limited opportunities at home, many educated Eritreans migrated to Ethiopia and elsewhere and many joined the armed struggle. During the 1980s and early 1990s, the national output tumbled sharply, and exports declined. The World Bank estimates that whilst exports earned $100 million for the country during the 1970s, by 1992, the level of exports had fallen to under $10 million.

Economic trends post-1991 - a new beginning

With the transition from war to peace and the introduction of more market-based policies, the level of output and employment are now expected to improve rapidly. In order for economic recovery to take place, the long-term food deficit has to be addressed, but there is thought to be good economic potential and the IMF cites a number of positive factors such as the country's strategic marine location, human and industrial resources and tourism projects. The World Bank has noted that the long struggle for independence and recent government policies have helped to foster a strong sense of integration and commitment to development. The Bank cites one of Eritrea's main strengths as being its well developed family and community solidarity which has mitigated the consequences of war, droughts, famine and poverty in general.

Following the liberation of Eritrea in May 1991, the government launched a major programme to rehabilitate the economy and society. This effort was supported by the World Bank and other donors with contributions going towards the government's Recovery and Rehabilitation Programme (RRPE) aiming to provide foreign exchange to import essential inputs. It was estimated that the reconstruction of the economy would cost at least $2 billion but substantial amounts of overseas aid were not forthcoming until 1993, when the declaration of independence was announced. In 1993, a $106 million recovery package was signed. The programme will run until 1996 and aims to restore the country's basic economic infrastructure.

One of the government's immediate tasks was to increase capacity utilization of industrial enterprises in order to restore supply of essential goods. Most industrial enterprises at the time of liberation suffered from a host of problems including shortages of raw materials, spare parts, working capital and foreign exchange. Some had been idle for years and those that were operating, were working at very low capacities. Most were saddled with obsolete equipment.

Some progress has been achieved in increasing capacity utilization under the RRPE and the 43 state run companies now operate at around 60 per cent capacity. Industrial production, as well as, service activities have increased due to rehabilitation efforts and growth has occurred in the private small-scale sector. However, there is still a long way to go and foreign exchange and working capital needs of manufacturing enterprises remain very high.

There is very little economic data on Eritrea and there is no official GDP series. Before 1993, most information on Eritrea was incorporated with Ethiopia and is difficult to decouple the performance of the domestic Eritrean economy from that of Ethiopia. However, the IMF and others have made estimates based on data provided by the Eritrean authorities. A national statistics office is currently being established, but in the meantime, data deficiencies prevail and therefore all estimates should be treated with caution.

Reflecting the cessation of the war in 1991 and favourable rains in 1992, economic activity recovered considerably, with nominal GDP estimated to amount to some birr 2.0 billion in 1992. During 1993, despite strong growth in the industrial and distribution sectors, real GDP growth was hampered by a substantial decline in agricultural output as a result of poor rains, pest infestations and drought in some regions. The growth in industry reflected increased availability of raw materials and spare parts and construction activity relating to the rebuilding of war-damaged roads, buildings and housing. The distribution sector benefited from the growth of the industrial sector as well as substantial increase in imports, including the receipt of food aid. Overall therefore, the IMF estimates that real GDP contracted by 1.5 per cent in 1993 (see Table I.1).

During 1994, agriculture rebounded strongly, not least due to more favourable rainfall. The 1994 harvest is estimated to have at least equalled the high production level of 1992. The industrial and distribution sectors also registered significant growth, with the result that, on aggregate, real GDP expanded by almost 10 per cent.

Table I.1. Growth estimates of GDP by sector of origin, 1992-1994
(Percentage)

	1992	1993	1994
Agricultural sector	50.2	-43.0	74.0
Agriculture and livestock	-	-51.2	103.0
Forestry and fishing	-	-2.5	2.5
Industry	55.9	32.7	5.7
Mining and quarrying	100.0	26.3	2.4
Manufacturing	44.1	35.2	6.8
Handicrafts and small industry	44.1	35.2	6.8
Electricity and Water	44.1	35.2	6.8
Building and Construction	100.0	26.3	2.4
Distribution services	94.9	56.8	21.3
Trade, wholesale and retail	50.6	59.8	34.0
Transport and communications	243.3	52.0	-
Other services	28.1	57.1	1.3
Financial services	-6.0	10.0	23.0
Dwellings and domestic services	50.0	13.1	1.2
Public administration and defence	53.0	97.5	-7.1
Social services	4.0	48.4	27.4
Other	3.0	3.0	3.0
GDP at current factor cost	58.8	23.7	20.4
Indirect taxes less subsidies	126.6	44.4	-54.0
GDP at market prices	64.8	26.2	10.0
GDP at constant factor cost	-	-1.5	9.4

Sources: IMF/Eritrean authorities.

Fiscal developments

Fiscal developments in Eritrea since 1992 have been strongly influenced by the legacies of the past, the economic structure of the country and the process of economic recovery and rehabilitation. The government's fiscal policy stance was generally prudent in 1992, but fiscal pressure increased in 1993 and in the first six months of 1994.

The Table I.2 shows that in 1992, the overall budgetary deficit (excluding grants and on a cash basis) was limited to just birr 53 million, or 2.6 per cent of the GDP. However, in 1993 the deficit rose to birr 153 million, or 6 per cent of GDP and surpassed birr 133 million in the first six months of 1994.

In 1993, revenue rose by 80 per cent over the previous year to reach birr 899 million. Of this total, tax revenue amounted to some 57 per cent, while port fees contributed an additional 27 per cent. However, expenditure rose by more than 120 per cent to birr 1.5 billion, over two-thirds of which represented recurrent expenditures. Initial data for 1994 indicate that expenditure continued to grow at a faster pace than revenue.

Table I.2. Summary of government finance, 1992-1994
(Millions of birr)

	1992	1993	1994 January-June
Total revenue	**500.5**	**898.8**	**415.7**
Tax revenue	309.3	516.3	295.1
Direct taxes	63.8	172.4	127.1
Indirect domestic taxes	109.2	143.6	68.6
Export tax	4.7	14.5	9.4
Non-tax revenue	191.2	382.5	120.6
Port fees and charges	152.0	244.5	93.0
Contributions and others	39.2	138.0	27.6
Total expenditure	**674.6**	**1,507.4**	**715.6**
Current expenditure	583.2	1,052.1	589.8
Wages, salaries, and allowances	136.9	233.4	235.2
Materials	319.0	714.6	119.5
Grants and contributions	6.1	12.4	122.5
Interest and charges	-	0.9	-
Pension contributions	0.2	0.2	0.2
Food aid	121.0	90.6	112.4
Capital expenditure*	91.4	455.3	125.8
Central treasury	-	89.4	34.1
External grants	-	364.6	55.0
External loans	-	1.3	36.7
Overall balance (cash excluding grants)	**-174.1**	**-608.6**	**-299.9**
Grants	121.0	455.2	167.4
External grants (capital and current)	121.0	455.2	167.4
Counterpart funds from external grant	-	-	
Overall balance (cash including grants)	**-53.1**	**-153.4**	**-132.5**
Financing	53.1	153.4	132.5
External	-	1.3	36.7
Gross borrowings	-	1.3	36.7
Capital budget	-	1.3	36.7
Other	-	-	-
Amortization	-	-	-
Domestic	53.1	152.1	95.8
Banking system	53.1	152.1	95.8
Other and residual	-	-	-

Source: Ministry of Finance and Development.

* In 1992, excluding all external grants; in 1994, only Relief and Rehabilitation Project (RRPE).

Balance of payments

As with the national account, there is no comprehensive balance of payments data on Eritrea. Nevertheless, the Bank of Eritrea has calculated estimates for the years 1993 and 1994 based on available data and this gives broad indications of external developments (see Table I.3).

Eritrea earned little from merchandise exports in 1993 and whilst there was a 50 per cent increase in export earnings in 1994, this failed to reduce the large trade deficit which increased from birr 1.5 billion in 1993 to birr 2.2 billion in 1994. The country remains heavily reliant on imports of raw materials, manufactured goods and capital goods. Between 1993 and 1994, imports rose by 51 per cent to birr 2.6 billion. A large part of imports are franco valuta - *i.e.* direct imports financed by Eritreans, both resident in the country and outside, from foreign exchange accounts they hold abroad.

The net surplus on services account, which amounted to birr 533 million in 1993, largely reflects fees paid by Ethiopia for use of the port of Assab and from fees associated with oil refining. However, net service receipts declined slightly between 1993 and 1994, largely as a result of increased service payments.

Remittances from abroad are currently a major source of foreign exchange earnings for the country. In 1992, the World Bank estimated that remittances amounted to $76 million, equivalent to 14 per cent of total GDP. Between 1993 and 1994, private transfer receipts increased by 80 per cent to birr 2.1 billion. These remittances are significant since they point to substantial financial resources held by Eritreans abroad (as well as to substantial foreign assets held by Eritreans living within the country), resources which could be tapped for the country's reconstruction.

Official transfers received during the period increased by 35 per cent to reach birr 490.7 million. The net result of the large private transfers, a surplus on the service account, and significant official transfers is that post-independent Eritrea has recorded a surplus on the current account over the past two years; in 1994, the current account surplus amounted to some birr 722 million, a 44 per cent rise over the previous year.

External debt

One of Eritrea's most obvious economic advantages is its lack of foreign debt; and Eritrea's minister of finance and development, has insisted that the country will not fall into a cycle of debt and dependency. In the 1994 donor conference in Paris, he stressed the need for further discussion to define the application of aid. At the start of 1995, Eritrea only had a $25 million loan from the International Development Association (IDA), the World Bank's soft-lending affiliate.

Aid

Eritrea received negligible aid until the declaration of independence in 1993. A $106 million recovery programme to run until 1996 was then established in 1993. The largest contributors were the International Development Association which committed $25 million, Italy which promised $24.3 million and the EU which gave $23 million. Other contributions came from Sweden ($9.1 million), Denmark ($6.5 million), Germany ($5.5 million), Netherlands ($2.2 million) and the United Nations Development Programme ($2.5 million). The main components of the programme were: agricultural and industrial inputs; equipment for infrastructure development; mechanical, electrical and telecommunications spare parts; construction materials for social utilities and cottage industries; and support for administration and economic planning.

At the end of 1994, the World Bank held its first consultative group meeting on Eritrea, which brought pledges of about $250 million from international organizations and individual countries to fund further rehabilitation and development programmes. (Further information on aid is presented in Chapter II, Section J.)

Inflation

There are no price indices for Eritrea, but price developments as measured by a crude index for Asmara indicate that end-period annual inflation rates in 1992 and 1993 were 8.8 per cent and 9.3 per cent respectively according to the Ministry of Trade and Industry. Price developments during the first half of 1994 showed some volatility, with an annual inflation rate of 7.4 per cent estimated as at end-June.

Table I.3 Balance of payments, 1993 and 1994
(Millions of birr)

	1993	1994
Exports fob	209.3	426.3
Imports cif	1,744.5	2,628.0
Franca valuta	1,100.3	1,995.2
Official	364.6	601.2
Private	735.7	1,394.0
Petroleum products	152.2	175.5
Other	492.0	457.3
Trade Balance	**(1,535.2)**	**(2,201.7)**
Services (Net)	**533.5**	**449.2**
Receipts	538.4	491.5
Oil refining	42.3	41.1
Port services	256.9	193.6
Other	239.2	256.7
Payments	4.9	42.2
Investment income deposits	**-**	**19.5**
Total goods, services and income	**(1,001.7)**	**(1,732.9)**
Private transfers (net)	**1,174.6**	**2,013.9**
Receipts	1,174.9	2,104.0
Counterpart franca valuta imports	735.7	1,394.0
Other transfers	439.2	710.0
Payments	0.3	90.1
Other transfers	-	90.1
Current account excluding official transfers	**172.9**	**280.9**
Capital Account		
Official transfers (net)	363.3	490.7
Counterpart franca valuta imports (food)	90.6	269.8
RRPE/Grants	109.4	147.1
Others	163.3	73.8
Current account including official transfers	**536.2**	**771.6**
Official capital	**1.1**	**148.5**
Long-term capital- RRPE	1.3	154.2
Private capital	(0.2)	-
Short-term capital	-	(5.7)
Errors and omissions*	169.9	(398.4)
Overall balance	**(707.0)**	**(521.7)**
Net foreign assets (increases)	**(707.0)**	**(521.7)**
Bank of Eritrea	(165.2)	(296.3)
Commercial Bank of Eritrea	(541.8)	(225.4)

Source: Bank of Eritrea.

* Given data deficiencies which exist, Eritrea's balance of payments includes a large and volatile errors and omissions component.

MACROECONOMIC TRENDS

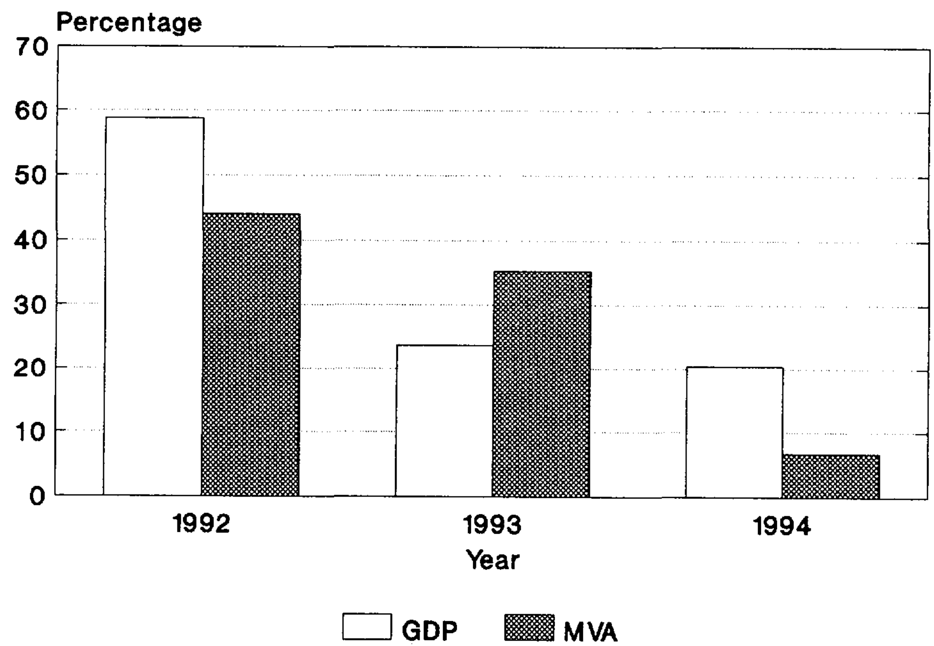


Fig. I.A. Growth of GDP and MVA, 1992-1994 (Percentage)

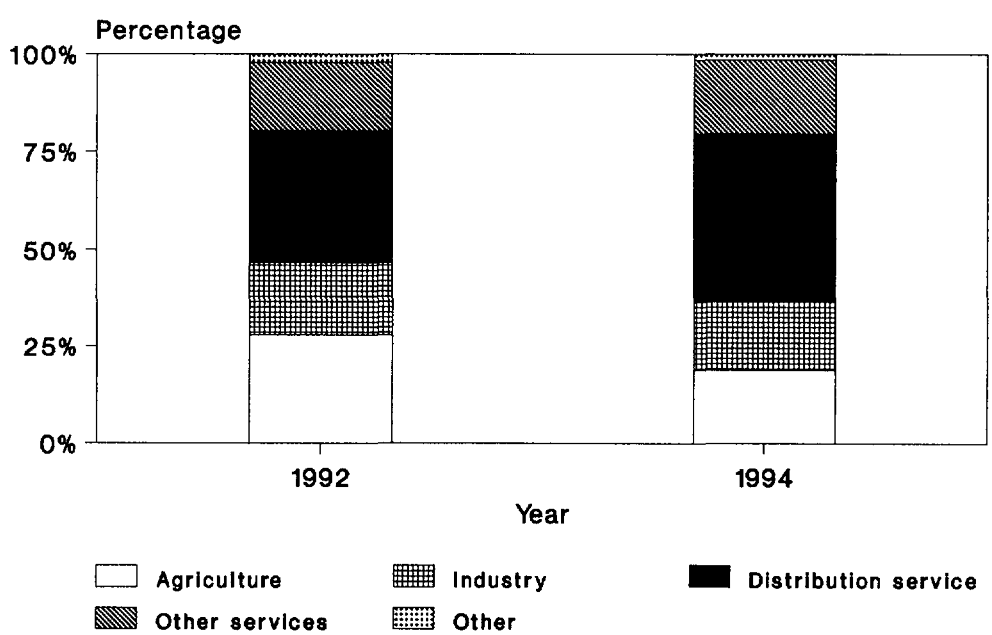


Fig. I.B. Structure of GDP by sector of origin, 1992 and 1994 (Percentage)

Fig. I.C . Exports, imports and trade balance, 1993 and 1994 (Billion Birr)

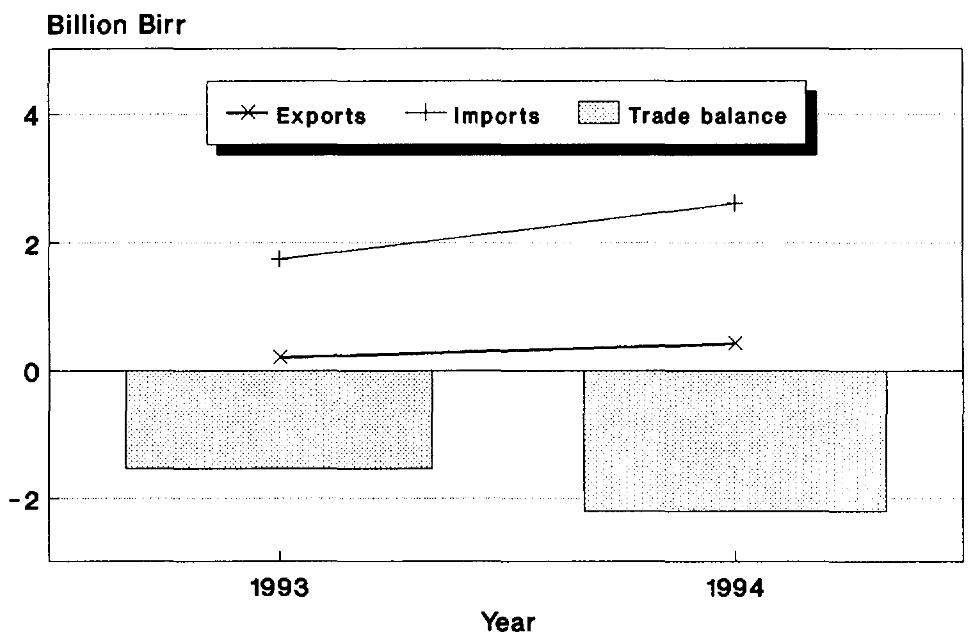


Fig. I.D. Destinations of exports, 1992 and Jan-June 1994 (Percentage)

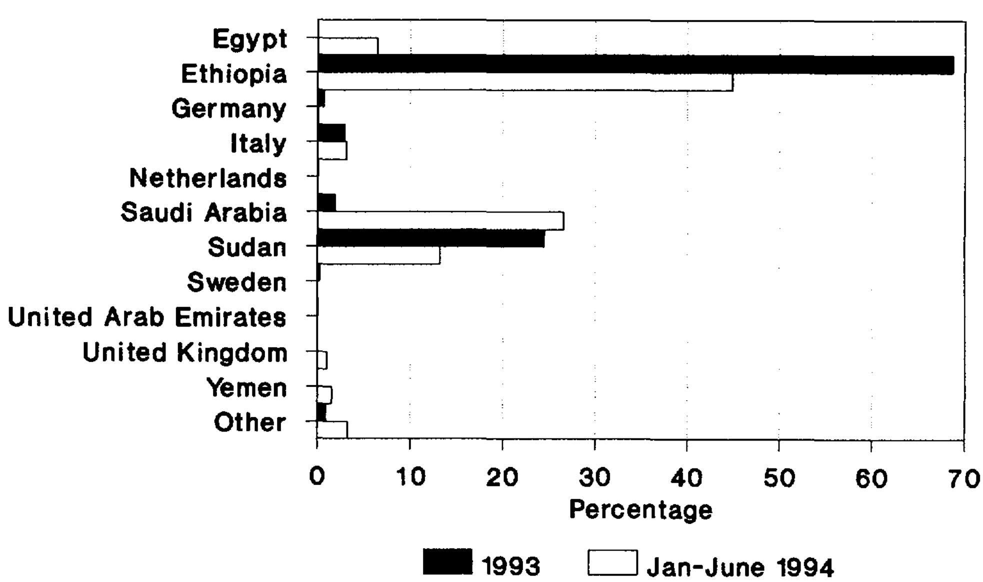


Fig. I.E. Origin of imports, 1992 and Jan-June 1994 (Percentage)

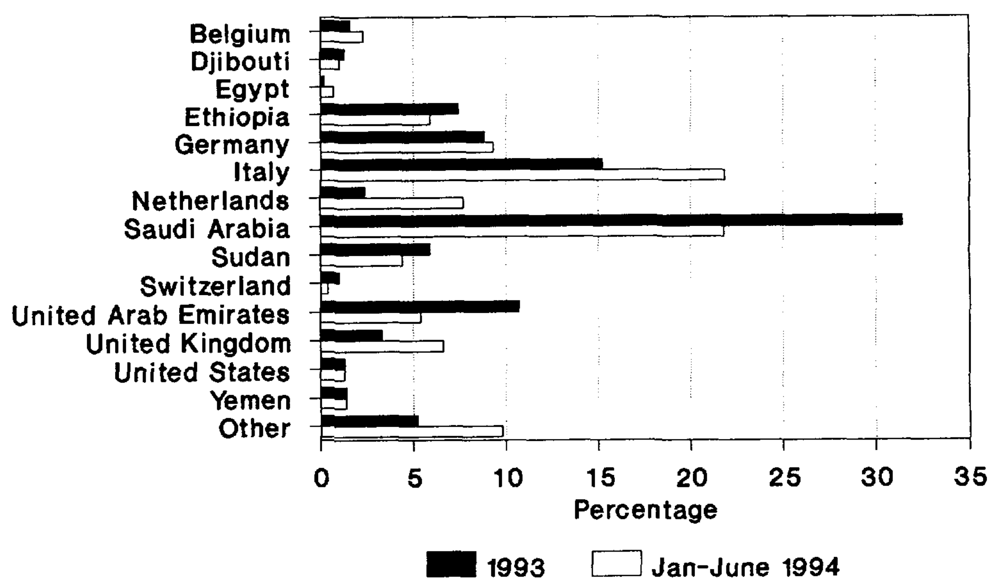


Fig. I.F. Government revenue and expenditure, 1992 and 1993

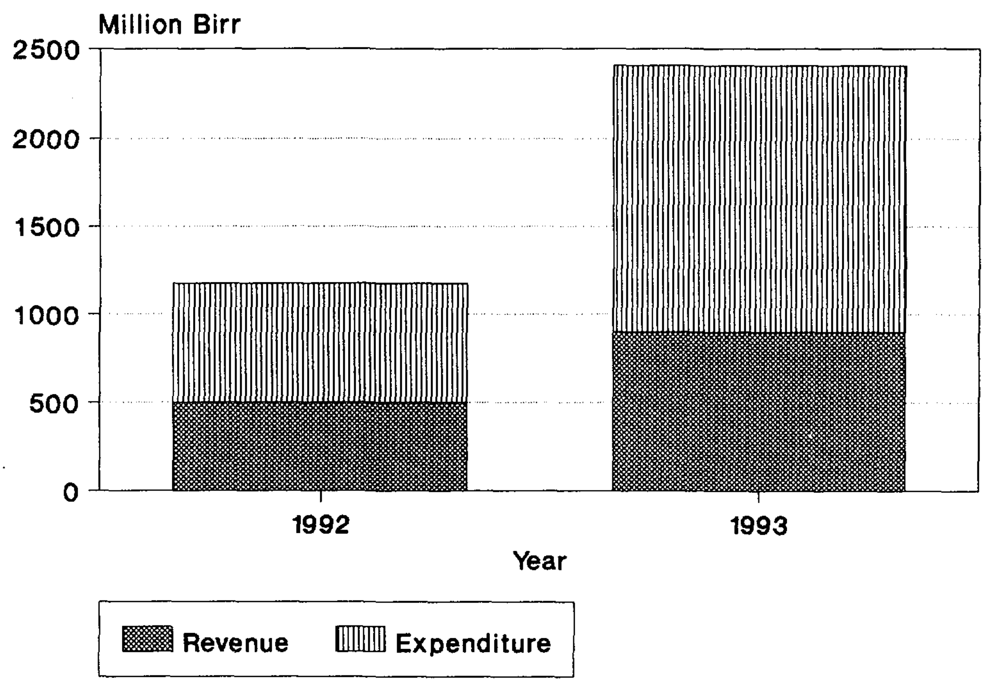


Fig. I.G. External grants, 1992 - Jan-June, 1994 (Million Birr)

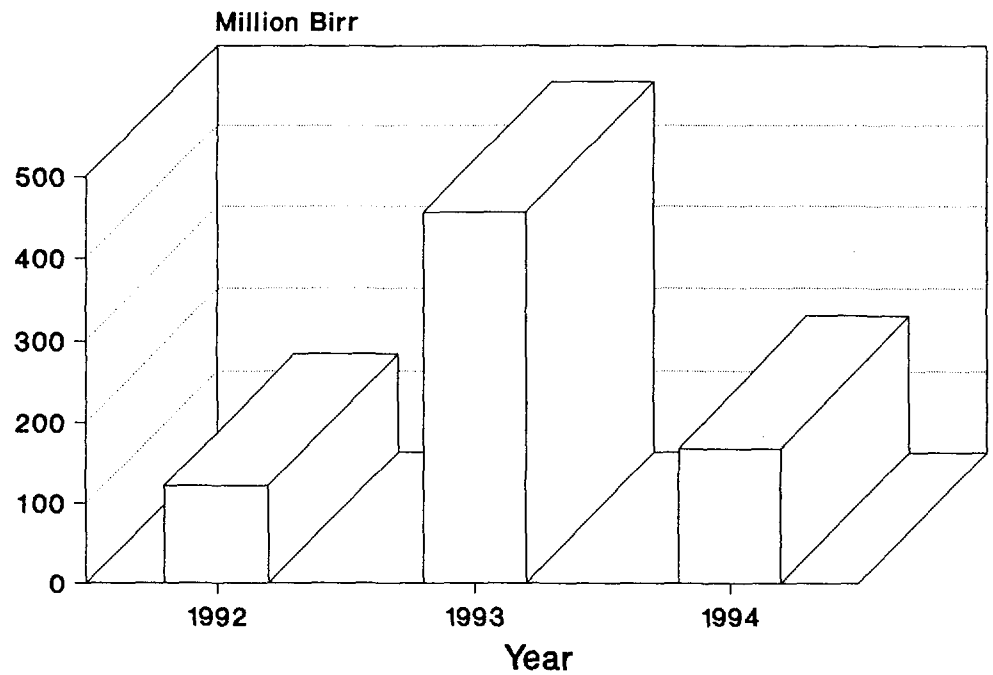
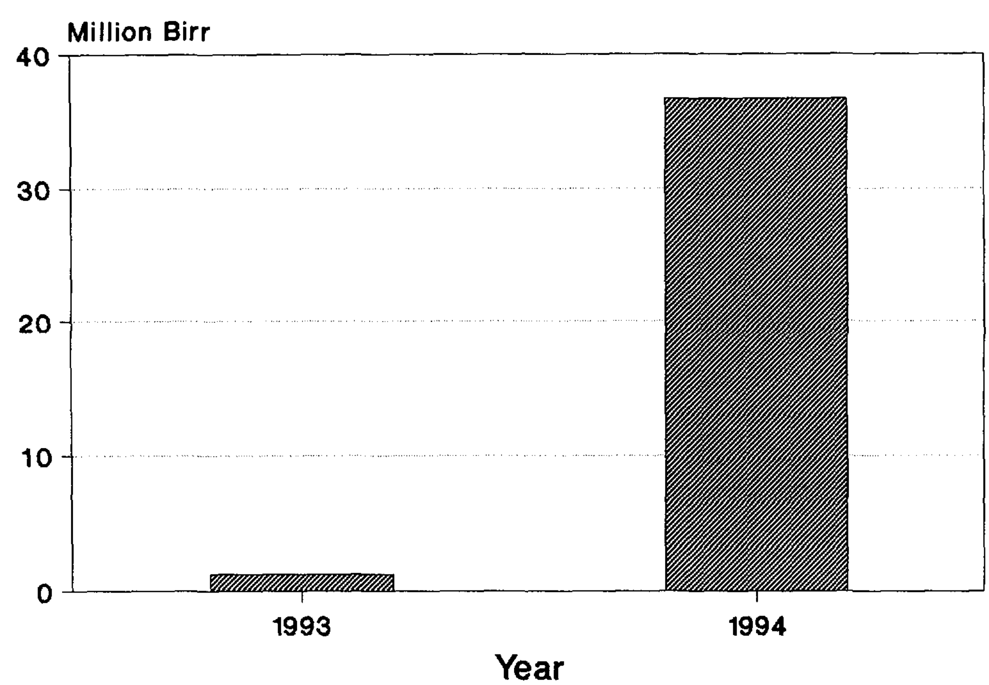


Fig. I.H. Gross borrowings, 1993 - Jan-June, 1994 (Million Birr)



B. ECONOMIC STRUCTURE

Geographic setting

Eritrea is 125,000 square kilometres in size (roughly the size of Greece) and is located in the north-eastern part of Africa known as the Horn of Africa. To the east, the country's coastline along the Red Sea totals 1,000 kilometres and Eritrea owns over 100 islands. Eritrea is bordered in the north by Sudan, to the south by Ethiopia and to the south-east by Djibouti. Eritrea can be divided into four main regions: the central highlands; western lowlands; mountainous north (Keren to Sudan); and low lying plains along the Red Sea coastline.

The climate varies from temperate in the central highlands to hot and humid in the western lowlands, and hot and arid in the eastern lowlands. In normal years, rainfall varies from 400-650 mm per year in the highlands to between 200-300 mm per year in the lowlands. During droughts, rainfall levels fall as low as 200 mm in the highlands and less than 100 mm in the lowlands. Problems of low rainfall are compounded by high variability and unreliability of both the total rainfall and its distribution. Almost all the existing and potentially important crop production areas are prone to drought and thus vulnerable to periodic and widespread crop failures.

Forest and woodland are very limited. Whereas in the 1920s, it is estimated that about 30 per cent of the country was covered with forests and woodlands, the current figure is calculated to be just 1 per cent. The main reason for rapid deforestation have been the clearing of land for agricultural purposes and the cutting of wood for fuel and construction. Loss of tree cover has contributed to a number of serious ecological problems, including increased silt load of rivers resulting in the siltation of irrigation dams and reservoirs, loss of nutrients in the soil and hence reduced fertility and loss of gene resources.

Demographic setting

There have been problems in calculating the size of Eritrea's population in the past due to movement of people as a result of the 30-year war and recurring drought. In addition, during the 1980s, there was a tendency to over-estimate the size of the population, when food aid requirements were being calculated. Registration for the April 1993 referendum on independence allowed better calculations to be made and the government now estimates the total population to be 3.5 million. Of this total, 750,000 are thought to be living in exile. It has been estimated that there are between 420-500,000 living in refugee camps in Sudan and a further 200,000 are thought to live in Ethiopia.

Most of the population live in the cooler, highlands where the capital city, Asmara, is located. The remainder are concentrated on the coastal littoral. The total urban population is estimated at 700,000 or 20 per cent of the national population, of which about 400,000 reside in Asmara. The two other major population centres are Massawa and Assab, the country's two main ports. Population estimates are presented in Table I.4.

The people of Eritrea are made up of nine ethnic-linguistic groups, with the population split almost equally between Christian and Muslim. Tigriyna is spoken in the mainly Christian highlands where the people are mainly involved with agricultural activities. Tigre speakers live in the Muslim lowlands and are engaged in animal husbandry and mixed farming. The other ethnic groups, including pastoralists and nomads also engage in agriculture and/or herding depending on topography and climate. Other languages include Afar, Arabic Bilen, Bedawi, Kunama, Nara and Saho. There is no official language. The government's working languages are Arabic, English and Tigrinya. Education is in English from the sixth grade onwards.

The government estimates life expectancy to be 46 years and infant mortality rate is 135 per 1,000 live births. Health indicators remain poor, especially among the pastoral people and are worse than the average for sub-Sahara Africa. Less than 3 per cent of the rural population having access to sanitation and waste disposal. There are 17 state and two private hospitals in the country concentrated in the urban areas. In rural areas, health provision is extremely poor. Overall, there is one doctor per 28,000 people and one nurse per 8,400 people and a huge injection of funds is clearly needed to raise standards of health. The growth rate of the population is put at 3.3 per cent per annum.

Table I.4. Estimated population by province, 1992

	Total	Urban	Rural
Akeleguazy	413,989	38,367	375,622
Barka	288,722	9,866	278,856
Gash-Setit	285,667	8,640	277,027
Hamasien	990,783	482,937	507,846
Senhit	346,612	44,960	301,652
Semhar	199,851	39,775	160,076
Sahel	379,893	-	379,893
Seraye	462,583	29,755	432,828
Dankalia	179,300	58,500	120,800
Total	**3,747,400**	**712,800**	**2,834,600**

Source: CSA Population Analysis and Studies Centre, Ethiopia.

Infrastructural base for industrial development

Although Eritrea had a fairly well developed infrastructure in the 1940s, decades of war and neglect of facilities have caused much damage. Deficiencies in the transport system and the water and electricity supply will need to be addressed immediately as they are currently acting as a hindrance to economic development.

Most of the electricity generated in Eritrea is consumed in the urban centres. The rest of the country is dependent on fuelwood and biomass, with a subsequent adverse impact on the environment. All electric power is generated from thermal power plants, most of which are equipped with diesel engines. The nationalization of electricity-generating enterprises in 1975 adversely affected the capacity and efficiency of the power system, while the destruction and poor maintenance caused most electricity plants to become non-operational.

At present, the Eritrean Electric Authority (EEA) operates an interconnected system between Asmara, Massawa and surrounding areas, supplied by four power stations. There are self-contained systems for provincial towns. Scarcity of generation capacity has forced the EEA to impose restrictions on industrial consumers to use minimum electricity during the peak hours of household consumption in the afternoon and evening. The EEA plan to have three new diesel units up and running in Asmara by early 1996.

In view of the high cost of diesel generation, there is considerable interest in commercial exploitation of natural gas from the Red Sea Basin. Efforts are also being made to develop the country's hydro-power and solar power potential.

Both electric power and water systems are currently in the process of being modernized and expanded to meet existing demand and to accommodate the new investment demand. A masterplan is being devised by Swedish consultants, Sweco, which includes $200 million of new investment over a five year period until the year 2000. This includes a 132-kV power line from Asmara to Massawa, an 80 mW electricity power station near Massawa and lines connecting the towns of Dehemhare, Keren and Mendefera to the national grid. The plan projects that Eritrea's needs in petroleum products will be 30,000 tonnes per year more than the country's refineries can currently produce. There are three possible solutions to this problem: increasing output (an unlikely proposition); importing refined products from Saudi Arabia; and building a privately financed refinery.

More details on the country's infrastructural base are contained within the Transport and communications section later in this chapter.

Structure of GDP

As previously mentioned, Eritrea does not have an official GDP series, but the IMF has prepared estimates based on preliminary data supplied by the Eritrean authorities (see Table I.5). According to these statistics, the main dynamic of the economy is the distributive sector, which contributed some 44 per cent of GDP in 1994. In addition to trading activities - both wholesale and retail - the preponderance of the distributive sector is also underpinned by the activities of the ports of Assab and Massawa. Yet in real terms, agriculture remains the backbone of the Eritrean economy. While the sector directly accounts for just 19 per cent of GDP, it contributes 70 per cent of exports and employs over 80 per cent of the population.

Before the war, the country had a relatively well-established and sophisticated industrial base, but this was shattered during the war. Based on IMF estimates, industry accounted for 18 per cent of GDP in 1994, marginally down on the sector's 21 per cent contribution registered in 1993, of which 8 per cent was derived from manufacturing activities.

Table I.5. Estimates of sectoral composition of GDP, 1992-1994
(Percentage)

	1992	1993	1994
Agricultural sector	28.5	13.1	19.0
Agriculture and livestock	23.7	9.4	15.8
Forestry and fishing	4.8	3.7	3.2
Industry	19.3	20.7	18.1
Mining and quarrying	-	-	-
Manufacturing	8.7	9.5	8.4
Handicrafts and small industry	4.0	4.4	3.9
Electricity and water	1.3	1.4	1.3
Building and construction	5.3	5.4	4.6
Distribution services	34.1	43.2	43.5
Trade, wholesale and retail	20.9	27.0	30.1
Transport and communications	13.2	16.2	13.4
Other services	18.1	23.0	19.3
Financial services	1.9	1.7	1.8
Dwellings and domestic services	2.7	2.5	2.1
Public administration and defence	8.7	14.0	10.8
Social services	2.5	3.0	3.2
Other	2.2	1.9	1.6
GDP at current factor cost	100.0	100.0	100.0

Sources: IMF/Eritrean authorities.

Agriculture, forestry and fishing

Agriculture remains a vital part of the Eritrean economy with around 80 per cent of the population depending on the production of crops, livestock and fisheries for income and employment. The rural economy is characterized by small-scale mixed farming, traditional cultivation practices and low use of inputs. Most commercial farming activities ceased following nationalization by Ethiopia and at present there are only three government-owned commercial farms.

Food security is precarious with almost all the existing and potentially important crop production areas in the country being prone to drought and thus vulnerable to periodic and widespread crop failure. Even in years of adequate rainfall, Eritrea manages to produce only about 50 per cent of its aggregate food requirements according to the World Bank and 50 per cent of the population remains chronically dependent on food aid to meet their consumption requirements for at least part of the year. Critically, rapid deforestation and soil erosion together with the effects of three decades of war have reduced food production capacity.

In fact, only some 3 per cent of the total land area in Eritrea is cultivated. Most of this is found in the central highlands which in good years can support the growing of staple grains (teff, millet, wheat, sorghum and barley), vegetables and pulses as well as cotton and fruit. In the western lowlands, where rain is less frequent, sorghum sesame, maize and beans are grown when possible and there are a declining number of pastoralists. Between the eastern highlands and the dry coastal plain is a fertile strip where maize, coffee and vegetables are grown. This area benefits from the highland rains via a unique system of spate irrigation which is capable of absorbing flash flood waters. Land is more intensively cultivated here and on irrigated plots, farmers use imported seeds, fertilizers, pesticides and some forms of mechanization.

Since the mid 1980s, there has been a sharp decline in herds and this has led to the shift towards sedentary agriculture (practiced by an estimated 60 per cent of farmers in Eritrea), while 35 per cent rely on a combination of crops and livestock and just 5 per cent live solely from livestock production.

Large areas of land, mostly in the lowlands remain underutilized. Some of these areas are only marginally productive - around one third of Eritrea's land is desert or semi-arid and is unsuitable for farming or livestock rearing. A further 50 per cent of the land is used for grazing and browsing, but though potentially fertile, cannot sustain rain-fed agriculture, given an average annual rainfall of only 200-400 mm.

Since the end of the war, major rehabilitation measures have been initiated in the agricultural sector under the RRPE. The government has made a substantial effort to improve the availability of essential inputs such as tools, oxen, seeds and farm equipment. In addition, land concessions of 20-100 hectares have been granted for a nominal fee with leases ranging from 10 to 50 years. In 1992, 17 water reservoirs and 20 small dams were built and more than 40,000 kilometres of badly eroded hillsides were terraced and 22 million trees planted. In June 1994, donors including the World Bank, the African Development Bank and UN agencies pledged $10 million to boost irrigation and small-scale enterprises. Two additional loans were granted for agricultural development in early 1995: $12.7 million from the International Fund for Agricultural Development (IFAD) and $5.3 million from the IFAD-Belgium Survival Fund Programme.

Well distributed rains and the timely availability of inputs led to substantial increase in agricultural output in 1992/93. In 1993/94, although the land planted to cereals and pulses increased, pest infestations and poor distribution of rainfall during the growing season meant any gains in production were wiped out. The 1994/95 harvest showed marked improvement to an estimated at 265,000 tonnes.

With such erratic harvests, Eritrea remains dependent on food aid requirements of 150,000-300,000 tonnes, depending on the domestic production in the preceding year. In collaboration with the Ministry of Agriculture, the Eritrean Relief and Rehabilitation Agency (ERRA) has set up an early warning and food monitoring system, which begins operations in August every year with crop assessments undertaken by ERRA's ten provincial offices. Together with the Food and Agricultural Organization (FAO), the ERRA determines the amount of food aid needed for the following year.

Eritrea's fishing sector has enormous potential. Fish is one of the country's richest known resources and the country's unpolluted coastal waters are thought to be among the most productive fishing grounds in the Red Sea. At present, the sector is under-exploited and the FAO estimates that there is potential for fish harvests of over 70,000 tonnes/year compared to current catches of 4,000 tonnes/year. The bulk of the catch is made up of sardines and anchovy but lobster, shrimp and prawns are also caught.

Since little fish is consumed in Eritrea as part of the traditional diet, there is believed to be considerable potential for exporting fish, especially the higher value crustaceans. However, much investment is needed to rehabilitate coastal infrastructure including storage and processing facilities. The sector has been targeted as a priority for investment by the government, with the potential to provide employment as well as much needed food supplies and export earnings. The UN has spent $5.4 million on a fisheries project in Massawa and in June 1994, Italy pledged $3.5 million for purchasing equipment and fishing vessels. Substantial investments were made in this sector in 1994 by Saudi Arabian companies and the government is encouraging further private sector development.

Mining and energy

Eritrea has considerable proven resources of minerals and the sector is believed to be of significant potential value. The mining sector began to recover quickly after 1991 and a new law on mining and mineral extraction was issued in April 1995. The recovery has been stimulated by the demand for building materials for immediate reconstruction needs. Limestone, basalt, marble, granite, sands and silicates are all mined in Eritrea. The country meets all domestic silicate needs for glass production and is seeking to revive former export markets, particularly in the Middle East for high quality sands and marble. All such mining is in private hands and since 1991, over 100 mining licenses have been issued.

Gold, copper, zinc, lead, iron ore, nickel, potash and magnesium are also known to exist, but further mapping and assessment of resources is needed to find out their true extent. Geological surveys currently being undertaken with the support of the Australian government point to the presence of at least four major deposits of copper, lead, silver and zinc. Gold potential is said to be good with gold-bearing seams existing in many of the igneous rocks forming the highlands of Eritrea. There are at least 15 gold mines and a large number of prospects close to Asmara.

The Red Sea is thought to harbour large reserves of petroleum and natural gas and this is of particular importance given Eritrea's acute energy shortage. Exploration for oil began in earnest in the 1960s, before the war with Ethiopia drove oil companies out of the area. In November 1993, the government passed a new petroleum operation code and a number of groups are already showing an interest in investing in the country's petroleum industry. The US-based company, Anadarko was known to be negotiating for an offshore block in January 1995. The company is considering investing $4-5 million in seismic research and $5-6 million in a first well. Another consortium is also planning to invest a sum of around $10 million in an initial phase of exploration. Meanwhile, Mobil of the US has invested $7 million since independence in a service station network and says that it is ready to maintain and build up its interests in Eritrea.

In terms of alternative sources of energy, solar power has the most promising potential in the short term. By May 1994, 37 schools and three hospitals had been built and equipped to run on solar power and there are plans to build another 20 solar-powered health centres and schools across the country. Work is also being undertaken to identify sites for the construction of dams since there is also thought to be some small-scale hydro-power potential.

Manufacturing

Eritrea has a relatively sophisticated, although now dilapidated, industrial capacity. Processed foods, soft drinks and alcoholic drinks, textiles and leather goods, construction materials, metal, glasswork and petroleum products are all produced in industrial enterprises concentrated around Asmara. Before the war, Eritrea exported beer, cement, textiles, shoes, salt, glass and processed food. Industrial exports are presently limited to leather products, textiles and salt. The country's industrial sector is characterized by large- and medium-scale enterprises under public ownership and micro- and small-scale enterprises under private entrepreneurship.

Eritrea had built up a light industrial manufacturing base by 1950, mostly processing agricultural products and construction materials. Products were exported to neighbouring countries, with the bulk of manufactured goods going to Ethiopia. By 1970, a survey revealed that Eritrea accounted for 35 per cent of all industrial activity in Ethiopia as a whole. However, after 1974, 42 of the country's most important industrial enterprises were nationalized. Although the political climate and prevailing economic conditions did not attract private investment, and enterprises were mismanaged, Eritrea still retained an almost 30 per cent share of total Ethiopian industrial production and continued to be one of the most industrialized parts of Eastern Africa.

By 1991, many of the public-sector factories were operating at just one-third capacity and were in urgent need of foreign exchange to import spare parts and raw materials. In addition, many enterprises were heavily indebted, largely to Ethiopian financial institutions. After the war, the government gave priority to the reinvigoration of existing enterprises and considerable progress has been made to increase capacity utilization under the RRPE. As of September 1993, there were a total of 336 manufacturing enterprises, of which 42 were in the public sector and the rest were in the private sector.

A first investment code was quickly introduced in 1991 to prevent exploitation by foreign investors and this was followed by a full investment code drafted in August 1994. The objectives of the newly issued investment code are to encourage investments that develop and use the country's natural resources, expand exports and encourage import-substitution businesses, expand employment opportunities, encourage the introduction of new technology in order to enhance production efficiency, encourage regional growth and to encourage small- and medium-scale enterprises. Despite the government's efforts, enterprises currently face a wide range of constraints including limited access to foreign exchange, a poor infrastructure with severe shortages of power, run-down and obsolete equipment and a shortage of skilled personnel.

Eritrean industry remains heavily dependent on imported raw materials and spares. A large proportion of industrial products are exported to Ethiopia, while imports from Ethiopia include raw materials, such as cotton, sugar, oilseeds, tobacco, wood, iron bars, corrugated iron, yarn and threads, cattle and skins. Furthermore, all machinery and tools and most intermediate goods such as crude oil, plastics and metals - which are essential for Eritrean industries - are imported from other countries. Linkages within Eritrean industry are limited. With the exception of a few items such as cement, glass and hides, there are few factories that use the output of others as their inputs and there are few examples of vertical integration outside the textile industry. Linkages between industry and agriculture are also weak.

Transport and communications

Thirty years of war left the country's transport system in a highly dilapidated state. Both the road network and port facilities were in urgent need of rehabilitation. Some progress has begun to be made on repairing the transport system, but much more is needed in order to encourage the development of export-oriented agriculture and industry and to foster real economic growth.

Eritrea's main network of roads were constructed between 1934-1938, and at one time represented a well developed road system. Lack of routine maintenance led to a deterioration in the system and now just 1,000 kilometres of the road network are thought to be in reasonable condition. The country has a very low road density at not much more than half the average for Eastern and Southern Africa.

The Roads Department is currently undertaking a major rehabilitation programme. Works have been completed on the only fully paved road in the country's 107 kilometres Massawa-Asmara road. This is the country's busiest road and repair of this road was given priority in the country's RRPE. The only other major routes link Asmara and Keren with Afabet and Nakfa in the north and Barentu and Tesseani through Kassala in Sudan, to the west. Both these roads are about 300 kilometres and are un-surfaced.

In 1991, there were only 245 commercial buses operating in Eritrea, most of them over 20 years old. This number has now doubled and the government is intent on regulating the tariffs and payloads of private transporters. In December 1993, a regular direct bus link was re-established with Addis Ababa and in 1994 a bus service began between Asmara and Assab.

As with the road network, Eritrea's two deep-water ports have suffered greatly. The port of Massawa which serves as the major import/export terminus has suffered substantial damage making the handling of containerized traffic difficult. Although there is sufficient capacity at the port at present, it needs heavy investment, particularly in new quays and storage facilities. Massive reconstruction work is currently underway, funded by the government and by individual investors. The repair of berths has been a World Bank priority and China has committed itself to some of the rebuilding work. At independence only 23 per cent of the seven-berth port was operational. However, within the first six months of 1994, the port saw a 36 per cent increase in handling activity mainly due to rising imports from the Middle East; storage capacity increased to 120,000 tonnes and passenger traffic, again from the Middle East rose by 200 per cent.

The port of Assab, in the south of the country was left largely undamaged in the closing stages of the war. It continues to be the main port for Ethiopia and is little used for imports into Eritrea because of the lack of a good road link with the north. In January 1992, Eritrea signed a port agreement with Ethiopia allowing full use of Assab port and exempting Ethiopian trade from customs duties. Ethiopian shipping lines operate out of Massawa and Assab, as well as Djibouti, which is Assab's main competitor. Assab is one of Eritrea's principal sources of invisible earnings.

Eritrea's only international airport is located at Asmara and because of its former importance to Ethiopia, Assab also has good facilities. A nationwide rebuilding programme has begun and a $3.45 million project to improve the facilities at Asmara is underway. France also pledged FF 17 million for runway improvements and communications systems at Asmara airport while Germany has given DM 3.5 million for security and navigational equipment. Further plans include an expanded duty-free service which is a significant revenue earner and cold storage facilities. In addition, a birr 2 million project to upgrade the Assab airport was completed in September 1994. There are small airstrips in Massawa, Tessenai, Afabet and Nakfa.

After a brief ill-fated attempt to run its own airline, the government has since allowed other carriers to negotiate rights into Asmara. Ethiopian, Saudi, Egyptian, Yemeni, Sudanese and German national carriers now all fly into Asmara. Discussions have taken place with foreign investors to start up joint venture operations for international and domestic flights. In 1993, 150,600 people flew in and out of the country, up from 44,560 in 1991.

The railway connection between Agordat, Asmara and the port of Massawa was dismantled during the war. The government did not provide any funds under its original Recovery and Rehabilitation Programme for railways, but volunteers have been working on the Massawa section since 1994 and are hoping to establish a service between Massawa and Asmara by 1997.

In common with other utility services in Eritrea, the telecommunications system is undeveloped and in need of substantial reconstruction. International telephone services were restored in 1992 and a satellite communications network has made possible direct telephone and facsimile services with the rest of the world. The telephone network connects almost all cities and towns in the country. In September 1994, a $10 million loan was approved by the European Investment Bank for upgrading cable networks in Massawa and Keren. Talks have taken place to form a joint venture with Alcatel-Bell.

A single government-owned radio station serves Eritrea and television services were initiated in 1993 for Asmara. Daily radio and TV broadcasts made in local languages and several newspapers are published including the government's Hadras Eritrea (New Eritrea) published in Arabic and Tigrinya and an English-language weekly.

Banking and finance

Eritrea inherited an obsolete monetary and fiscal system from Ethiopia. This consisted of branches of Ethiopian financial institutions and after liberation, most Ethiopian managers and staff moved back to their country, leaving large gaps in the management and operational structure.

The institutional structure is made up of: the National Bank of Eritrea (BE); the Commercial Bank of Eritrea (CBE); the Housing and Saving Bank (HSB); the National Insurance Corporation (NIC); and the Development Bank of Eritrea (formerly known as the Agricultural and Industrial Development Bank). The HSB is currently under reorganization, while the Development Bank is not in operation at present because of its poor financial position and is awaiting restructuring. At present, all financial institutions are owned by the government, but entry of foreign private and domestic banks is permitted.

The National Bank of Eritrea was established on the basis of a former branch of the central bank of Ethiopia. The balance sheet of the bank is small in relation to both GDP and that of the Commercial Bank of Eritrea in terms of assets. The CBE dominates the banking sector, accounting for over 90 per cent of the sector's assets. The bank operates 11 branches in major towns and has around 164,000 savings accounts. The CBE is the only source of commercial (mostly short-term) credit, but the bank's lending activities have lagged behind. The CBE suffers from a shortage of qualified personnel, inadequate communication and operating facilities, poor linkages with the international system and excess liquidity.

The Housing and Savings Bank has resumed operations in mobilizing retail savings as well as providing loans in the area of building and construction. For example, the Bank is backing one of the country's largest housing projects begun in February 1995 which aims to build 50 five-storey apartment blocks outside Asmara.

The National Insurance Corporation (NIC) was established shortly after liberation on the basis of a former branch of the Ethiopian Insurance Corporation, as the only national insurer in Eritrea to engage in all classes of insurance business. Between 1992 and 1993, the gross turnover of the NIC expanded from birr 17.4 million to birr 26 million.

There is also an informal financial sector engaged in different kinds of rotating credit and savings mechanisms and short-term credit. The source of funds is local money-lenders, families and friends, shopkeepers and suppliers. This sector finances the segment of the population which does not have access to the formal sector and also deals in retail foreign exchange and informal remittances.

Trade, tourism and other services

The country's potential for tourism is thought to be great given its location and its rich archaeological heritage. Many possibilities exist for developing water-based activities such as sailing and scuba diving. Tourism began to develop in Eritrea after liberation and the government is working on a plan to develop the tourism sector by attracting private investors. The tourism plan will define tourism resources and make a strategic choice of the type of tourism best suited under Eritrean conditions. In late 1993, the government began to implement privatization of state-operated hotels to encourage the sector and the number of privately owned hotels and restaurants is growing rapidly in number. In full year 1994, 222,000 tourists visited Eritrea.

Many hotels are being built in Massawa and in smaller towns such as Agordat and Tessenei. A project which has backing from a consortium of US companies envisages the building of a $182 million hotel and casino complex on Dahlak Islands. The islands, off the coast from Massawa, are a coral archipelago rich in marine life. The scheme would also involve the construction of a desalination system and repair to the island's airstrip. The Eritrean government is guaranteeing a third of the loans, since the project will bring infrastructural repairs.

Patterns of trade

The Customs Office/IMF estimates that between 1992 and 1993, exports more than trebled to reach birr 190 million and that exports totalled birr 17 million in the first six months of 1994 (these estimates vary from the Bank of Eritrea's figures presented in the balance of payments Table in Chapter I, Section A).

Ethiopia continues to be Eritrea's main trading partner, although Ethiopia's significance as a trading partner has, since 1993, been more pronounced in terms of exports (60 per cent) than imports (7 per cent). Eritrea's main exports to Ethiopia comprise textiles, shoes, household goods (e.g. plastic goods, matches, candles), salt and beverages, while main imports from Ethiopia include consumer items and petroleum products.

Eritrea's exports to countries other than Ethiopia have increased recently, especially during the first half of 1994, thus contributing to the decline in Ethiopia's share in Eritrea's total exports (see Table I.6). Exports include sesame seeds to Egypt, hides and skins to Italy and livestock to Saudi Arabia. Fish exports continue to be negligible, partly owing to low levels of domestic production. However, it is estimated that exports through unofficial channels to neighbouring countries such as Ethiopia, Sudan and Yemen could be significant.

Table I.6. Direction of exports, 1992-1994
(Percentage)

	1992	1993	1994 January-June
Egypt	-	-	6.4
Ethiopia	86.7	68.7	44.9
Germany	0.3	0.7	0.1
Italy	7.5	2.9	3.1
Netherlands	0.3	0.1	-
Saudi Arabia	0.3	1.9	26.5
Sudan	-	24.5	13.2
Sweden	2.5	0.3	-
United Arab Emirates	0.6	0.1	-
United Kingdom	0.6	-	1.0
Yemen	0.5	-	1.5
Other	0.6	0.9	3.3
Total	**100.0**	**100.0**	**100.0**
Total value (millions of birr)	**46.1**	**190.0**	**176.8**

Source: Customs Officials/IMF Estimates.

While recorded exports have been negligible in the past few years, import levels have remained very high. Between 1992 and 1993, imports rose by 145 per cent to reach birr 899.7 million and for the first six months of 1994, imports totalled birr 672 million. As a result, recorded exports in 1993, covered just 21 per cent of imports and the relevant figure for the first half of 1994 was 26 per cent.

Ethiopia's large share of total exports results from petroleum products from the Assab refinery. Eritrea and Ethiopia have an agreement whereby the Ethiopian Petroleum Corporation (EPC) purchases crude oil and ships it to the Assab refinery. The refinery produces products and delivers the whole lot to the EPC from where Eritrea purchases petroleum products (in birr) for domestic consumption.

Apart from Ethiopia, Eritrea's imports are predominantly from the Gulf countries (Saudi Arabia and the United Arab Emirates) and Europe (Italy, Germany) (see Table I.7). Imports of machinery/transport goods and manufacturing products account respectively for about 40 per cent and 30 per cent of Eritrea's total imports (excluding petroleum products).

Imports are constrained by the country's acute shortage of foreign exchange. There is no centralized allocation of foreign exchange and most imports are on a franco valuta basis, with licenses being made available to those who have their own foreign exchange.

Table I.7. Source of imports, 1992-1994
(Percentage)

	1992	1993	1994 January-June
Belgium	0.1	1.6	2.3
Djibouti	3.6	1.3	1.0
Egypt	0.4	0.2	0.7
Ethiopia	16.8	7.4	5.9
Germany	1.9	8.8	9.3
Italy	7.6	15.2	21.8
Netherlands	1.8	2.4	7.7
Saudi Arabia	37.1	31.4	21.8
Sudan	0.6	5.9	4.4
Sweden	0.6	2.9	0.7
Switzerland	0.4	1.0	0.4
United Arab Emirates	9.8	10.7	5.4
United Kingdom	1.3	3.3	6.6
United States	0.3	1.3	1.3
Yemen	1.9	1.4	1.0
Other	15.7	5.2	9.8
Total	**100.0**	**100.0**	**100.0**
Total value (millions of birr)	**367.1**	**899.7**	**672.0**

Sources: Customs Officials/IMF Estimates.

C. MACROECONOMIC POLICIES

Eritrea not only inherited obsolete institutions and weak instruments for managing economic policies, but also, under the rule of Ethiopia and its centrally planned economic strategy, the country had little autonomy or policy making powers. The government has now placed a high priority on developing its own capacity to manage policies and key elements of macroeconomic management are now being put in place.

The government's first task has been to tackle the immediate problems hindering economic development in the country and these are currently being addressed in the Recovery and Rehabilitation Programme for Eritrea (RRPE) which is being financed in large part by the World Bank and other donors. This programme includes an Economic and Financial Management Programme (EFMP) which aims to build up the basic capacity for economic management by the government. The EFMP, in particular, aims to enhance the institutional capacities for economic management in a number of key agencies, including the Office of the President, the Ministry of

Finance and Development, the Bank of Eritrea and the Commercial Bank of Eritrea. The EFMP, a multi-donor technical assistance package, was finalized at the end of 1994.

The second task facing the government concerns long-term development, and the country's national development objectives for the next two decades include:

- improved agricultural production through development of irrigated agriculture;
- enhancing the productivity of peasants, pastoralists and agro-pastoralists;
- developing capital and knowledge-intensive and export-oriented industries and services;
- a developed tourism sector and high-grade conference and convention facilities;
- a competitive international financial centre;
- a developed and systematic public health care system;
- broad-based education incorporating widespread dissemination of skills and languages and extensive human capital formation;
- an effective social welfare and safety-net system;
- an up-graded and safe-guarded environment that is free from pollution;
- a decentralized and democratic political system;
- an internally peaceful and stable nation at peace and in harmony with its neighbours; and
- a free and sovereign state where human rights are respected.

To achieve the above-stated objectives, the government has adopted a broad-based growth strategy comprising rehabilitation, reconstruction and development of the key economic sectors. Major components of this strategy are: human capital formation, with education and health as key inputs; export-oriented developments both in industry and agriculture; infrastructural improvements to remove critical bottlenecks; environmental restoration and protection; and the promotion of the private sector.

The centrepiece of this strategy is the establishment of an efficient, outward-looking, private sector-led market economy, with the government playing a pro-active role to stimulate private sector activities. The economic role of the public sector is to be restricted to those areas which the private sector may tend to avoid. However, the strategy does not preclude a well prepared public investment programme in strategic subsectors to initiate economic growth and supplement the efforts of the private sector. In such cases, all strategic public investments are to be subjected to rigorous project preparation work and are to be operated on a commercial basis, with eventual divestiture not excluded. Such public investment programmes are to be carried out within the limits of a prudent fiscal policy.

A number of major reforms have already taken place, including an overhaul of the tax system, the promulgation of a new investment code and the preparation of legislation relating to land utilization. Key institutions are also in the process of being restructured. The Department of Economic Development and Cooperation and the Department of Finance have been merged into the Ministry of Finance and Development and in April 1995, it was announced that the 30,000 strong civil service would be slimmed down by 10,000 in order to build up a leaner and fitter public administration system.

Fiscal policy

Under the Government of Ethiopia, fiscal policies were formulated in Addis Ababa and communicated to Asmara for implementation. Over the years, the fiscal system had become punitive as high taxes were levied to finance the war effort of the Government of Ethiopia. At the same time, the EPLF operated its own fiscal system which relied on voluntary contributions in support of the popular war of liberation.

Presently, Eritrea's fiscal system is still evolving. Since liberation, the government has been attempting to integrate the dual-system operated by the erstwhile Ethiopian government and that of the EPLF. To this end, a number of fiscal reforms have been undertaken with the objective of establishing a unified fiscal system consistent with the government's aim of creating a free-market economy.

In October 1994, the government introduced tax reforms based on the principles laid out in the Macroeconomic Policy Paper of August 1994. These reforms aimed to improve the efficiency of resource allocation, to promote an equitable distribution of income, enhance external competitiveness, and foster savings and private investment. Also, the government aimed to rely more on revenue from direct taxes, while reducing dependence on indirect taxation.

In fact, since 1991, strong efforts have been made to streamline and strengthen tax administration. The Inland Revenue Administration (IRA) and Customs Administration (CA) have undergone substantial restructuring, including the introduction of a new organization structure and enhanced staffing. Internal control procedures have been improved and during 1993 both the IRA and the CA benefited from substantial IMF technical assistance.

Yet, despite much progress which has been made, tax assessment and collection remain cumbersome and outdated, and it is recognized that more training is needed for the staff of the IRA and CA. The government realizes that revenue potential is far from being fully tapped, owing to the administration weaknesses which still persist.

Monetary policy

Eritrea inherited an obsolete monetary and financial system from Ethiopia. At present, the financial sector is temporarily governed by Draft Proclamation 32/1993, but new central bank and financial sector legislation is under discussion with a new banking law expected to be established in 1995/96. At present, all financial institutions are owned by the government, but entry of foreign private and domestic banks is permitted.

Eritrea's financial institutions include: a new central Bank, the National Bank of Eritrea (BE); the Commercial Bank of Eritrea (CBE); the Housing and Saving Bank (HSB); the National Insurance Corporation (NIC); and the Development Bank of Eritrea (formerly known as the Agricultural and Industrial Development Bank).

Eritrea forms a *de facto* currency union with Ethiopia and provisionally uses the Ethiopian birr as its legal tender. Although both countries have initiated cooperation in monetary and economic policies, without its own currency, Eritrea has found harmonizing fiscal and monetary policies a very difficult task. The government has expressed its intention to introduce its own currency in the future, but no time-frame has yet been put on this.

Exchange rate policy

Clearly, given the de facto currency union with Ethiopia, Eritrea's present exchange rate and trade policy remain tied to Ethiopia's. Comprehensive foreign exchange regulations are currently in preparation; however, the present exchange regime is quite discretionary and, compared with Ethiopia, considerably more liberal. In addition to the Bank of Eritrea and a number of officially-authorized foreign exchange dealers (including the Commercial Bank of Eritrea), there are a number of unlicensed dealers whose activities are officially tolerated.

Eritrea uses three different exchange rates. The official exchange rate is pegged to the US dollar at birr 5.95 per US dollar of end-October 1994. The official rate applies only to transactions between Eritrea and Ethiopia associated with the oil refinery activity. Aside of this, the central bank applies the marginal auction rate (determined by the fortnightly foreign exchange auctions conducted by the National Bank of Ethiopia) to fund imports and most service transactions. A more depreciated preferential rate (birr 7.20 per $1) applies to foreign exchange remittances by Eritreans abroad, except proceeds and most import payments.

Critically, the Bank of Eritrea undertakes transactions with these authorized dealers, which in turn carry out transactions with the public on its behalf. Exchange rates for currencies other than the US dollar are communicated daily by the Bank of Eritrea to authorized dealers, on the basis of same-day early morning quotations in the London market for these currencies against the US dollar. Authorized foreign exchange dealers are licensed in accordance with the Monetary and

Banking Proclamation No. 32/1993. The Exchange Control Department of the Bank of Eritrea issues permits only for those imports that require foreign exchange from the banking system.

Trade policy

As part of the pursuit of market-based economic policies, the government has liberalized the trading regime, with the result that Eritrea now has a relatively open economy. Under the previous (Ethiopian) regime, all exports were channelled through the Ethiopia Import/Export Corporation which also negotiated export prices with foreign buyers. Export marketing has now been liberalized, and on the import side, import tariffs have been simplified.

Essentially, trade policy objectives include:

- promotion of economic growth and a healthy balance of payments;
- increased access to sources of raw materials, technology and know-how;
- removal of domestic market limitations for marketing of outputs and thereby improve employment opportunities;
- enhanced efficiency in production and competitiveness in price and quality of commodities and services;
- promotion of regional cooperation and economic integration; and
- increased attraction of Eritrea to direct foreign investment.

The government's October 1994 tax reforms ended discriminatory sales taxation, with the result that all goods attract the same sales tax, regardless of whether they are domestically produced or imported. Most raw materials and intermediate goods are still subject to a 3 per cent sales tax, while most consumer goods continue to carry a sales tax of 5 per cent. But some items enjoy exemptions from the sales tax, including cereals, live animals, a variety of capital goods, transport vehicles, kerosene and medical equipment.

In October 1994, the government introduced excise taxes for both domestic production and imports, ranging from 10 per cent for mineral water to 100 per cent for alcoholic beverages, cosmetics, and perfumes. Recently, changes were made in customs tariff, which included the following:

- the maximum customs duty was raised from 50 per cent to 200 per cent (for beverages with high alcoholic content and tobacco products);
- previously zero-rated goods (e.g capital goods, raw materials, fertilizers) now mostly carry a 2 or 3 per cent customs duty;
- the exemption for all relief and aid imports was eliminated; and
- the import of used clothing, ivory, drugs, and asbestos was forbidden.

Regional integration

The government has placed a high priority on regional integration and, as such, has endeavoured to establish good relations with most neighbouring states. Historically, trade between Eritrea, Sudan and Ethiopia had been important, with Eritrean exports commanding a significant share of the regional market.

In a bid to foster much deeper regional integration, a number of major agreements have been signed between Eritrea and Ethiopia to facilitate bilateral trade. In January 1992, agreements were reached over the use of the port of Assab and oil refinery and over transit trade between the two countries. This was followed by the Agreement on Friendship and Cooperation which was signed in July 1993; since then the Protocol Agreement on Harmonization of Economic Policies has been signed covering, fiscal, monetary, trade and investment policies. During early 1995, further high-level talks were held on increased cooperation in industrial development, justice, defence, foreign relations and economic integration.

Relations with Sudan remain strained at present. Diplomatic communications broke off in December 1994 following accusations by Eritrea that the National Islamic Front-backed Sudanese government was training more than 700 "terrorists" to take part in subversive actions against Eritrea. This charge has been hotly denied by Sudan. Meanwhile relations with Saudi Arabia, cool during the war, have been strengthened with the appointment of a Saudi ambassador in May 1995. Saudi Arabia has become the largest aid donor to Eritrea.

In May 1993, Eritrea was admitted to the group of African, Caribbean and Pacific (ACP) countries, and as such became a member of the Lomé Convention. Moreover, the country joined the IMF in July 1994, with an initial quota of SDR 11.5 million ($17 million). Eritrea is also a member of OAU, COMESA, the United Nations and its specialized agencies, and the Intergovernmental Authority on Drought and Development (IGADD).

Wages and prices

With a view to establishing a market economy, the government has abolished most price intervention and controls over the past three years. Prices of most consumer items including beverages, flour, bread, pasta, fuel, mineral water, pharmaceuticals, detergents and cement were controlled up until August 1994. Since then, however, the implementation of a comprehensive price liberalization programme has seen most prices de-controlled, although the of flour, bread, petroleum products and pharmaceuticals remain regulated.

There exists no comprehensive incomes data on Eritrea. However, an analysis of wage structure based on limited official data shows that starting salaries for low-skilled occupations are higher in the public sector vis-a-vis the private sector, but for high-skill occupations, public and private wages are broadly uniform. The government increased the monthly minimum wage in the civil service from birr 50 to birr 70 soon after liberation. Subsequently in October 1992, civil service wages were increased across the board, including a further rise in the minimum monthly wage from birr 70 to birr 140. Further reviews of the salary structure are expected with the planned restructuring of central government.

A new law governing non-governmental organizations (NGOs) set a limit on the salaries paid by international organizations, following fears that there would be a brain-drain away from government departments.

Land policy

Eritrea inherited complex land tenure systems based on traditional and colonial law. The government aims to establish a revised land tenure system that encourages long-term investment in agriculture and prudent environmental management, assures women's rights to land on an equal basis with men and promotes commercial agriculture. Meanwhile the government has enacted a new land law which makes ownership of land in the country the exclusive right of the government. The terms and conditions of leases are reasonable and are determined by Land Law 58/1994. The land law guarantees every Eritrean citizen land use-rights for residential and agricultural purposes, together with the right to inherit the value of improvements to the land. It also offers up to 99-year leases to domestic and foreign investors for large-scale commercial farming.

Policy towards human resource development

Employment and training

Present opportunities for vocational training are limited; and with 21,000 school leavers every year, there is enormous pressure to create on-the-job and apprenticeship schemes for these young people and ex-fighters. Overall, the level of unemployment is very high, even by African standards. In February 1995, the International Labour Organization estimated that 55 per cent of those aged 20-29 and 18 per cent of those aged 30-39 were out of work. These percentages are due to rise with the return of refugees from Sudan and elsewhere.

One of the major problems facing the government has been how to accommodate thousands of EPLF fighters following the ending of the war. In the short-term, many of these ex-fighters have been employed on food-for-work schemes, involving public works such as constructing roads and terracing hillsides.

Indeed, following the cessation of hostilities, the government made demobilization the fighters a major priority, and thus proceeded with a programme to demobilize some two-thirds of the country's 90,000-strong army. Phase I of the programme was completed in 1993 and saw 26,000 men and women integrated into civilian life. Crucially, vocational training has been provided to ex-combatants, including those necessary to establish small-scale enterprises.

Refugees/returnees

Following the war, a programme to return and resettle refugees was initiated. In fact, attempts to assist refugees pre-date the cessation of hostilities; in 1987, the Commission for Eritrean Refugee Affairs (CERA) was formed to address some of the problems of the Eritrean community abroad. CERA's main objectives now include: to facilitate the return of refugees; to ensure that they return of their free will; to assist in the resettlement in a place of their choosing; to follow the situation and problems of those Eritreans still in exile; and to seek international support for repatriation and resettlement.

CERA and the United Nations developed a joint plan to repatriate and re-integrate the refugees living in Sudan. Code-named the Programme for Refugee Reintegration and Rehabilitation of Resettlement Areas in Eritrea (PROFERI), the three-phase programme is slated to run from July 1993 to January 1997, and aims to reintegrate some 420,000 still in Sudanese refugee camps and the 80,000 or so who have already returned home. The total cost of the programme was put at $262 million. A pledging conference for the first stage of the programme generated just $32.5 million and a much smaller pilot programme was then developed. The $13 million pilot project began in November 1994 and by March 1995 the task of resettling 22,000 people in the western lowlands near Tessenei and Mahmimet had been completed. In general, resettlement programmes for refugees involve activities such as food-for-work schemes, agricultural projects, constructing low-cost housing, rehabilitating dilapidated infrastructure and vocational training programmes.

Education

Education was severely disrupted during the 30-year armed struggle and the government estimates that the adult male illiteracy rate is around 80 per cent, while the rate for adult females is put at a higher 90 per cent. The main problems relate to access, especially for girls and the concentration of schools in urban areas. Out of the 15 secondary schools in 1993/94, most were located in Asmara and Hamasien provinces. The country's only university is located in the capital. Although a policy of free education is in place, the level of teacher training is very low, with the government relying on national service conscripts and ex-fighters to act as teachers.

Recognizing the primacy of education in economic development, the government has accorded a high priority to developing the education sector, and has already made important strides in remedying some of the deficiencies within the sector. A policy and strategic framework has already been worked out for education, emphasizing the importance of basic education, the need to encourage community, parental and private participation and the need to maximize cost recovery while ensuring that those with limited means will have access to education.

The government's main policy objectives for education as stated in 1993 are to:

- provide universal basic education for all Eritrean children aged 7-15;
- make basic education accessible to children in their mother tongue;
- extend at least three years of basic educational opportunities to those aged 15-55 through adult education programmes;
- re-establish and diversify post-basic training centres at the provincial level;

- create skill-oriented short and medium term training programmes for post basic students and school drop-outs;
- produce qualified staff through expanding the programmes for training and re-training qualified teachers, supervisors and administrative staff; and
- improve and equip secondary schools/training centres with adequate teaching facilities.

Health

Health and nutritional levels are low in Eritrea. Life expectancy is about 46 years compared to 50 for sub-Saharan Africa and 67 for East Asia. The mortality rate for the under-fives is 203 per 1,000 live births compared to an average of 196 for sub-Saharan Africa and 96 for East Asia; and there is widespread malnourishment of children. There is lack of access to immunizations and family planning. Inauspiciously, poor health and nutrition levels are accompanied by high fertility rates of about 6.8 per cent and an annual population growth of 3.3 per cent. In part, the country's poor health status reflects war damage to health facilities and the lack of investment in social sectors in the past.

The Ministry of Health has identified the main priorities in the health sector and has begun to define programmes to improve the health profile of all nationals. The government has stated that the immediate objectives in the health sector are the rehabilitation and expansion of health services infrastructure. In parallel, the government plans to increase training of health personnel, especially ex-fighters, and to strengthen health information and disease control programmes. The government recognizes the importance of an adequate supply of essential drugs, equipment and supplies for effective provision of health services. These include the construction of local drug production facilities, quality control laboratories and pharmacies and storage units. In addition, health facilities will need to be constructed for populations which currently lack health care, particularly, in the rural areas.

Crucially, the provision of health facilities is expanding at an impressive pace. In 1991, Eritrea had only 8 hospitals, 4 health centres and 45 health stations according to official data. By mid-1994, there were 17 hospitals, 32 health centres and 120 health stations under the administration of the government. During 1995, repairs were completed by Norwegian Red Cross to the 1,000 bed hospital in Massawa and a new pharmaceutical manufacturing plant opened at Keren.

POLICIES FOR INDUSTRIAL DEVELOPMENT

Eritrea's main national development objective is to create a modern, technologically advanced and internationally competitive economy within the next two decades. It is aimed to develop industries and services which are capital and knowledge-intensive and oriented towards the export sector. In order to achieve this, the government has opted for an open, private sector-led free market economy. The government allows participation in all sectors of the economy and tries to provide supportive measures to promote, encourage and develop the private sector.

Export expansion policies

After years of the pursuit of ill-conceived inward-looking industrial policies by the erstwhile Ethiopian government, it is hardly surprising that the government has identified export promotion as the main engine of growth. Already a plethora of measures and policy reforms have been initiated aimed at promoting the development of exports. Reforms have included the establishment of a competitive exchange rate policy, the lowering of trade tariffs and taxes, and the dismantling of restrictive export regulations. Additional measures are also being considered to promote exports in the short to medium term. These include:

- rationalization of export licenses;
- further improvement in the foreign exchange allocation system;
- the elimination of the remaining regulatory and legal obstacles deterring private companies (both domestic and foreign) from investing in Eritrea;

- provision of technical and marketing support to sectors with export potential such as fisheries and livestock in the agricultural sector and shoe-making, garments, knitwear in the manufacturing sector;
- greater focus on rehabilitating sectors with export potential and where relatively small investments are required such as leather, shoe making, salt etc.;
- setting up entrepots facilities and establishing efficient export processing zones as an instrument for speeding up export development;
- establishing and strengthening mechanisms for attracting remittances from Eritreans abroad on a long-term basis; and
- encouraging the private sector in the expansion of tourism.

Investment policy

Since its accession to power, the attraction of foreign direct investment has been high on the government's agenda. To this end, in December 1991, a comprehensive investment code was enacted. This was updated in August 1994 to give even more favourable provision to investors, including 100 per cent foreign equity ownership. Foreign investment in the domestic economy is thus regulated by the Investment Proclamation No. 59/1994. This opens up all areas of economic activity to investors.

The law's objectives are summarized as follows:

- foster the utilization and development of the country's natural resources through inflows of foreign capital;
- expand exports and encourage competitive import substitution;
- increase employment opportunities;
- introduce new technology and knowledge to improve quality and efficiency;
- encourage equitable regional growth and development; and
- encourage the development of small- and medium-scale enterprises.

The code provides a variety of investment incentives, and there is no discrimination between domestic and foreign investors. The 1991 investment code also established the Eritrean Investment Centre (EIC) to facilitate and promote investment in the country. The EIC's main functions now include:

- promoting investment through the provision of information about investment opportunities in Eritrea;
- monitoring, interpret and assess the implementation of the provision of the Investment Proclamation No. 59/1994;
- providing and organize advisory and training services for local investors;
- assisting foreign investors in acquiring the necessary legality for their investment;
- keeping registers of certifications and technology transfer agreements; and
- advising the government on investment policy matters.

Investment guarantees

The Investment Proclamation Law guarantees investment against nationalization or confiscation, except with the due process of law. In the exceptional case of expropriation, full and fair compensation will be paid for under the auspices of the Settlement of Investment Disputes (ICSID).

Allocation of foreign exchange

Investors may in accordance with the established regulations open and operate foreign exchange accounts abroad and in Eritrea. Foreign exchange in these accounts may be used to make the necessary procurement for operation of their investment projects. The Bank in principle grants foreign exchange allocations to all investors whether local or foreign, subject to its rules and regulations.

Investors may also retain up to 100 per cent of their export earnings in foreign currency in Eritrea in accordance with the Bank's rules.

Investment incentives

The following exemptions and incentives are granted by the government:

- there are no taxes on declared dividends;
- any loss incurred during the first two years of operation by an investor may be carried forward for three consecutive years.

In addition to the above, foreign investors may make the following remittances in the currency of investment at the prevailing exchange rate on the day of remittance:

- net profits and dividends accrued from investment income;
- fees or royalties in respect of any technology transfer agreement;
- debt-servicing payments for a foreign loan incurred pursuant to central bank regulation;
- proceeds received from liquidation of investment and/or expansion; and
- payments received from the sale or transfer of shares.

Privatization

The government is principally committed to the privatization of public enterprises in the productive sector in a gradual and phased approach, but no date has been given for the start of the privatization process. Asset valuation has been completed for a large majority of the 43 public enterprises in the industrial sector and the authorities have identified certain criteria that will be used in determining the privatization process. It is intended to sell small enterprises first and those with a 'strategic role' or a monopoly position will be sold later.

Mining law

In April 1995, the government passed its long-awaited mining law. This declares state ownership of all mineral resources in Eritrea and stresses the importance of private investment. The law provides foreign and local investors with favourable incentives for exploration in line with the country's Investment Proclamation issued in 1994. Specific incentives include:

- a relatively low income tax regime (38 per cent compared with Ethiopia's 45 per cent);
- tax exemption on dividends;
- low royalties (between 2 per cent and 5 per cent);
- fair exchange-control arrangements with no restrictions on the repatriation of profits;
- 5 per cent gross earnings deducted from taxable income if it is reinvested;
- the operation of foreign-currency accounts; and
- the right to sell minerals locally or abroad without further licenses or export duties.

The government retains the right to designate any area or mineral as reserved and can acquire up to 10 per cent participation in any mining investment. The holder of a prospecting license secures an exclusive right for one year; the holder of an exploration license has the exclusive right to all minerals within a specified area for an initial three years (renewable twice for one year); and a mineral license gives an exclusive right to mine specified minerals in a specified area for a maximum of 20 years or the life of the deposit, whichever is shorter, renewable for a maximum of ten years.

II. THE MANUFACTURING SECTOR

A. GROWTH AND STRUCTURAL CHANGE

Given the lack of disaggregated industrial statistics, following over two decades of federation with Ethiopia, a comprehensive analysis of industrial growth and structural changes is next to impossible. But as previously mentioned, the development of Eritrean industry goes back to the last century. The colonial power, Italy, saw Eritrea as an offshore site for the production of manufactured goods and finished products for its domestic market. To this end, the colonial government made significant investment in light industry. In 1920, there were at least 15 major industrial firms in operation, with the total rising to about 56 industries by 1930.

Under British administration, industrial strategy shifted to satisfying local consumption; and the consequence was a rapid expansion in the output of basic manufactures, such as soap, beer, light wine, caustic soda, hand tools, and leather. New factories for the manufacturing of buttons, pottery, glassware, boots and shoes were also set up. Overall, there were more than 300 factories operating by the end of 1945.

In the initial ten-year period of Eritrea's federation with Ethiopia, the light industries left intact by the preceding British administration continued to operate. Official figures show that by 1962, there were 88 industries in existence, comprising a total investment of some 55 million Ethiopian dollars, and employing more than 10,000 people. Following a policy of rapid industrialization, by 1965, the number of industries had reached 138, representing a total investment of almost 150 million Ethiopian dollars, and employing some 13,300 people. By the end of 1970, the number of industries had risen further to 165, representing about 35 per cent of the cumulative total of industries in Ethiopia. Following independence, the Eritrean Department of Industry received 38 public enterprises; and following a process of rationalization and consolidation, there are now 41 factories organized under nine industries.

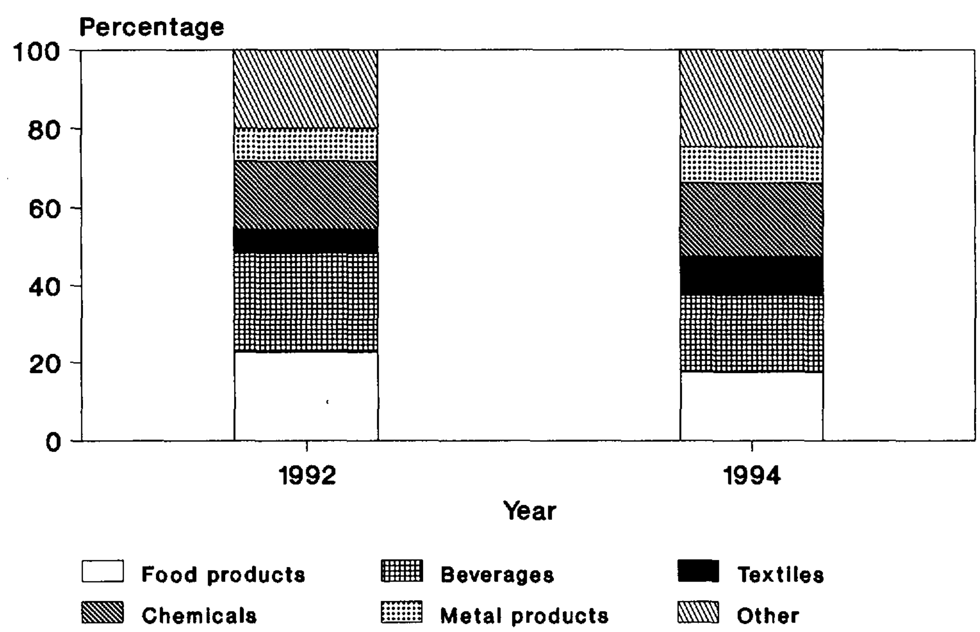
Table II.1. Value of industrial output by subsector, 1992-June 1994

	1992 (Birr million)	1993 (Birr million)	1994 (January-June) (Birr million)	1992-94 (Average per cent)
Food industries	48.5	48.4	28.8	18.8
Beverage industries	55.1	65.5	32.8	23.0
Tobacco & matches	2.0	3.6	2.8	1.3
Textile industries	13.2	16.5	16.2	6.9
Leather & shoes	17.2	28.2	16.5	9.3
Non-metallic industries	14.4	24.0	14.2	7.9
Paper & printing	9.1	17.7	6.5	5.0
Chemical industries	37.4	51.1	31.0	17.9
Metal industries	17.6	34.0	14.8	10.0
TOTAL	**214.6**	**289.1**	**163.7**	**100.0**

Sources: IMF; Ministry of Trade and Industry.

As illustrated in the Table II.1, the beverage sector is the largest contributor to industrial activity, accounting for some 23 per cent of aggregate activity over the 1992-1994 period. An additional 19 per cent of industrial output was contributed by the food sector, which was closely followed by the chemicals sector, with a share of 18 per cent. Between 1992 and 1993, industrial activity expanded by a robust 35 per cent, with the value of output rising to some birr 289 million in 1993. But, what is most striking is the fact that the expansion in output was broad-based, as leather and shoes, non-metallic, paper and printing, and metal sectors recorded year-on-year growth in excess of 60 per cent; indeed, the metal industries saw a virtual doubling in output over the period.

Fig. II.A. Structure industrial output by sector, 1992 and 1994



B. INDUSTRIAL EMPLOYMENT

Given over 20 years of socialist development under the Ethiopian regime, it is hardly surprising that the public sector dominates manufacturing employment. According to Ministry of Trade and Industry data, the state-owned manufacturing firms employed some 10,500 people as at December 1994, while a further 6,915 people were employed in officially-registered private sector and medium-sized enterprises giving a total manufacturing sector employment of 17,379 (see Table II.2). However, it is likely that the figure for the private sector greatly underestimates the numbers employed in small family concerns.

Table II.2. Number of workers in industrial enterprises, December 1994

Subsector	Public Sector	Private Sector	Total	Per cent of total
Food	990	1,887	2,887	16.6
Beverage	841	185	1,026	5.9
Tobacco	337	-	398	2.2
Textiles	3,752	1,484	5,236	30.1
Leather & shoes	1,550	567	2,117	12.2
Metal products	1,002	1,178	2,180	12.5
Printing	349	129	478	2.8
Non-metallic minerals	711	986	1,697	9.8
Chemicals	880	499	1,379	7.9
Total	**10,464**	**6,915**	**17,379**	**100.0**

Source: Ministry of Labour.

The textiles sector is the largest contributor to manufacturing employment, accounting for some 30 per cent of the total, while an additional 41 per cent of total manufacturing employment is accounted for by the food (16.1 per cent), metal products (12.5 per cent), and leather and shoes sectors (12.2 per cent).

Critically, the 60-40 per cent split in favour of public sector manufacturing employment belies significant differences across sectors. In the minerals and metals sectors, the private sector predominates, in terms of employment. In the metals and non-metallic minerals sectors, the private sector contributes some 54 per cent and 58 per cent of employment respectively; in sharp contrast, the private sector accounts for only 18 per cent of aggregate employment in the beverages sector.

Indeed, as with the public-private sector divergence in manufacturing employment, there exists sharp variations in total employment trends by sex groups. The Ministry of Labour undertook a survey of firms in 1992 which best highlights such disparity. According to the survey, while women accounted for just 36 per cent of manufacturing sector employment, they represented almost 60 per cent of community, social and personnel services employment (see Table II.3).

Table II.3. Employment in public and private sector firms, by sex and industry, 1992

	Public Sector			Private Sector		
	Males	Females	Total	Males	Females	Total
Agriculture, forestry & fishing	473	109	582	55	10	65
Mining & quarrying	180	43	223	69	0	69
Manufacturing	6,013	3,613	9,626	1,638	630	2,268
Electricity, water & gas	1,856	329	2,185	186	131	99
Construction	153	22	175	122	1	123
Wholesale & retail trade	123	62	185	256	156	412
Transport, storage & communications	2,252	623	2,875	236	15	251
Finance, insurance, & business services	236	146	382	-	-	-
Community, social & personnel services	533	352	885	2,059	2,057	4,116
Total	**11,819**	**5,299**	**17,118**	**4,621**	**2,882**	**7,503**

Source: Ministry of Labour Survey.

C. PRODUCTIVITY AND PERFORMANCE

Because of the prolonged war conditions, most public enterprises were working at very low capacities at the time of independence. During the height of hostilities, average capacity utilization in industry was estimated at less than 20 per cent. From May 1991 to December 1992, 40 of the 43 enterprises were put into operation. Since 1992, factories have benefited greatly from the government's rehabilitation efforts; machinery and raw materials have been provided to the factories and capacities have increased substantially. Capacity utilization in 1992 varied greatly between sectors, with the best performers being paper and printing and non-metallic industries and the worst being tobacco and matches and textile industries (see Table II.4).

Table II.4. Capacity utilization, 1992

Industrial sector	Percentage
Food Industries	54.7
Beverage Industries	69.4
Tobacco and Matches	9.3
Textile Industries	24.1
Leather and Shoes	23.0
Non-metallic Industries	73.2
Paper and Printing	87.5
Chemical Industries	63.9
Metal Industries	76.2
Total	**49.8**

Source: Ministry of Trade and Industry.

Yet, despite improvements, for industry as a whole, average capacity utilization in 1992 was still below 50 per cent. According to Ministry of Trade and Industry statistics, industry capacity has presently risen to about 70 per cent, with the quest to achieve full utilization continuing to be hampered by a shortage of raw material, obsolescence of machinery, lack of adequate foreign exchange, a shortage of power, and energy supply problems.

It is unarguable that Eritrean industry suffered severely under 14 years of state control. Perhaps the most single debilitating factor on domestic Eritrean industry was the Dergue's Proclamation No. 163/1979, which required that industries transferred 90 per cent of their net income after taxes to the Central Treasury. The consequence was that these industries, even if they were substantially profitable (see Table II.5), were left with puny financial resources to meet their subsequent operating expenses.

Table II.5. Profit and loss for all corporations, 1981-1989 average
(Million birr)

Sector	Sales	Net Profit
Textiles	52	(2)
Leather and shoes	34	3
Beverages	67	3
Metals	19	2
Food	46	4
Chemicals	13	1
Non-metals	14	(1)
Printing	7	1
Tobacco & matches	18	1
Sugar	3	0.5
Total	**273**	**12.5**

Source: Ministry of Trade and Industry.

The annual average profit and loss statements of the public corporations covering the period 1981-1989 is presented in Table II.6. Although over the period, 8 out of 10 industries recorded positive profits, by any measure, the level of profits were generally small; this ranged from a low of birr 500,000 for a sugar industry to a high of birr 4 million for the chemicals sector. For industry as a whole, average annual net profits amounted to less than 5 per cent of gross sales over the review period.

Table II.6. Industry balance sheets and profit and loss statements, May 1991
(Million birr)

Sector	Assets	Debt	Equity	Sales	Profit
Textiles	46.0	88.2	(42.2)	2.6	(12.5)
Leather & shoes	31.9	36.6	(4.7)	4.7	(4.5)
Beverages	29.0	21.5	7.6	1.1	(5.3)
Food	80.3	51.4	28.9	30.8	(3.0)
Tobacco & matches	15.3	15.7	(0.4)	0.7	(1.6)
Metals	24.2	26.0	(1.8)	1.6	(3.5)
Non-metals	15.0	26.9	(11.9)	0.2	(2.4)
Chemicals	25.1	13.5	11.6	9.0	(0.2)
Printing	8.3	5.8	2.5	1.8	(0.7)
Total	**275.1**	**285.5**	**(10.4)**	**52.5**	**(33.7)**

Source: Ministry of Trade and Industry.

An analysis of industry balance sheets and profit and loss statements in the immediate post-war period shows that, while Eritrea inherited industrial assets of some birr 275 million, this came with liabilities of almost birr 290 million. The state equity was 9 per cent of the total value of assets while liability comprised 91 per cent of total assets of the public enterprises.

In addition to the much-vaunted effects of socialist planning on the performance of domestic industry, other factors which hampered the performance of Eritrean industry included:

- Managers entrusted with the management of state enterprises were required to be loyal to the state apparatus. In most cases, competent managers whose political allegiance could not be guaranteed were demoted from key decision-making positions.
- A high turnover of managers prevented any effective medium-term planning to be undertaken.
- Pertaining to the legacy of the colonial system, all industries in general, and the state-owned enterprises in particular were poorly managed. Their material and financial resources were not utilized appropriately, as too few industries absorbed scarce manpower resources.
- Regular and essential capital budgeting for required for expansion, and the replacement of antiquated and obsolete machinery were not in practice.
- Recommendations and audit opinions made by the independent auditing professionals on the improvement of the enterprises internal controls systems were generally neglected.
- Increases in costs of production were not accompanied by corresponding increase in sales prices, as prices were controlled. A corollary of this was that the public industries generally faced a liquidity crunch and thus depended on costly overdraft facilities to support their operations.

Following a process of recapitalization and the granting of greater management autonomy, Eritrea's public sector industrial performance had rebounded sharply by 1993. Compared to 1991, when all industrial enterprises registered large losses, in 1993, except the textiles sector, every single industrial sector within the public sector recorded a profit. At the aggregate level, industrial sector profits in 1993 amounted to some birr 52 million, compared to a loss of birr 34 million registered in 1991.

Concurrent with the improved financial performance of these industries was an expansion in the asset base to some birr 644 million in 1993, although liabilities had also shot up to over birr 550 million (see Table II.7). Yet on the positive side, state equity as a proportion of total asset value had increased to 14 per cent in 1993 (compared to 9 per cent in 1991), with the ratio of liabilities to total assets fallen to 86 per cent.

Table II.7. Public industries, summary of balance sheets and profit and loss statements, 1993
(Million birr)

Sector	Assets	Debt	Equity	Sales	Profit
Textiles	94	151	(57)	34	(10.9)
Leather & shoes	34	38	(4)	33	4.6
Beverages	119	71	45	79	20.7
Food	130	84	46	51	4.8
Tobacco & matches	21	15	6	7	0.8
Metals	58	46	12	36	6.5
Non-metals	41	50	(9)	0.2	(2.4)
Chemicals	119	82	37	70	17.3
Printing	31	20	11	18	5.1
Total	**644**	**557**	**87**	**365**	**52.7**

Source: Ministry of Trade and Industry.

D. OWNERSHIP PATTERNS

Most large and medium-sized manufacturing enterprises in Eritrea are under public ownership. Thus presently, a greater income contribution from the manufacturing sector emanates from the public subsector rather than the private subsector. Critically, most of the public manufacturing enterprises were originally under private ownership, but were nationalized by Ethiopian government after 1974.

Private sector concerns tend to be concentrated in micro and small-scale activities, and thus there is a distinct difference between the scope of the private and public sector enterprises. As earlier indicated, the public manufacturing enterprises are much larger with employment averaging more than 250 persons and an average capital investment of some birr 2.2 million. Private enterprises by contrast employ an average of about six people, and the average size of investment of only about birr 90,000. The number of private enterprises operating in Eritrea as of September 1993 in each industry branch is presented in Table II.8.

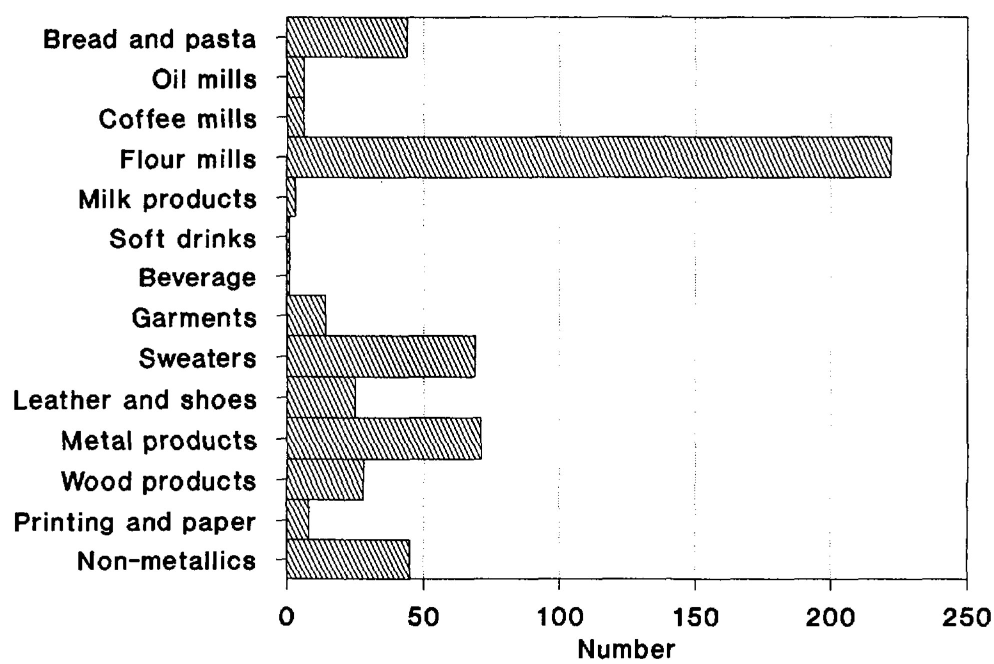
Most of these small-scale private manufacturing enterprises are managed by entrepreneurs with some craft skills or technical education, but limited financial resources. Many of the war-time entrepreneurial activities were carried out by these companies. While these entrepreneurs have proven to be skilled and were able to produce marketable goods under very difficult conditions, their enterprises remain modest and constrained.

Table II.8. Private industrial enterprises operating in September 1993

Industrial subsector	Number of enterprises	Number of employees
Food Sector		
Bread and pasta	44	321
Oil mills	6	36
Coffee mills	6	28
Flour mills	222	414
Ice making/milk products	3	24
Soft drinks	1	45
Beverages	1	5
Textiles sector		
Garments	14	365
Sweaters	69	622
Chemicals	37	487
Leather and shoes	25	386
Metal products	71	370
Wood products	28	114
Printing and paper	8	59
Non-metallic minerals	45	399
TOTAL	**580**	**3,675**

Source: Ministry of Trade and Industry.

Fig. II.B. Number of private enterprises by subsector, September 1993



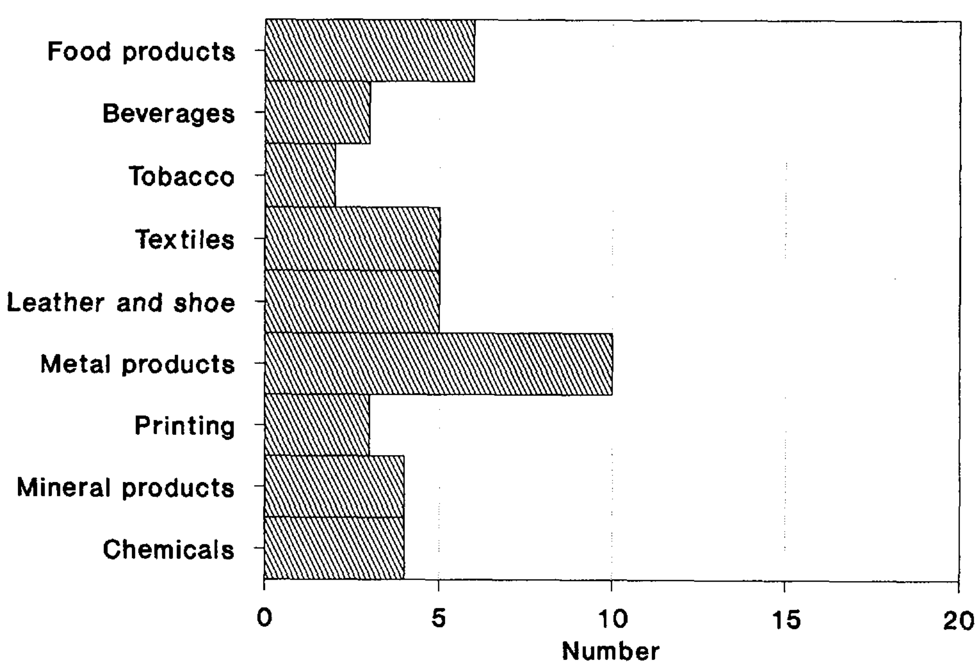
Despite much criticism of public enterprises, it is anticipated that a number of state-owned enterprises will remain within the public sector in the foreseeable future for their strategic importance, or for safety and public security reasons. However, presently the government acknowledges that the management of huge and numerous enterprises is beyond its capacity, and thus has a standing policy to divest from most public sector enterprises. The number of public enterprises engaged in the production of different industrial products is presented in Table II.9.

Table II.9. Public industrial enterprises operating in September 1993

Industrial subsector	Number of enterprises	Number of employees
Food	6	1,039
Beverages	3	896
Tobacco	2	372
Textiles	5	4,627
Leather & shoes	5	1,616
Metal products	10	1,016
Printing	3	354
Mineral products	4	687
Chemicals	4	937
Total	**42**	**11,544**

Source: Ministry of Trade and Industry.

Fig. II.C. Number of public enterprises by subsector, September 1993



While the government remains committed to privatization of the public enterprises in the productive sector in a gradual and phased approached, no comprehensive time-scale has been issued by for the divestiture programme. Regarding hotels, which are all owned by the Eritrean Tourism Service Corporation, a tender was published in late-1993 for the sale or 'lease under management contract' of eight hotels in Asmara. The tender was directed at both domestic and foreign investors, but by mid-1994 most of the bids that had been received were judged to be too low or were not considered sufficiently qualified. However, the Nyala Hotel has now been sold to foreign investors and the Ambassador Hotel has been returned to its previous owner.

Thus until the privatization programme becomes functional, the public sector will continue to predominate, and industrial policy will remain focused on removing existing weaknesses required to make them economically viable and commercially profitable. Indeed, since independence, a number of steps have been made to improve the operating framework for public enterprises; and there has been a move away from the previous centralized arrangement. Some of the measures adopted include:

- the disbanding of central marketing organizations so that enterprises are now responsible for marketing their products;
- disbanding of the central planning functions (which determined production targets) so that enterprises are responsible for determining the composition, level, and quality of output produced;
- giving full autonomy in terms of management, wage and employment policies; and
- the placing of each public enterprise under a government ministry.

In addition, many enterprises have been financially assisted (including the freezing of debt servicing), senior managerial appointments have been made to replace the exodus of managers following independence, and measures have been taken to deal with the problem of undercapitalization and foreign exchange requirements.

E. INVESTMENT PATTERNS

Public sector

As elsewhere discussed, with liberation, the government inherited 42 factories, most of which were too old to operate or required major maintenance and raw materials. In the absence of sufficient foreign currency required to put them all back into full working order, it was decided to re-start factories which offered the widest employment opportunities, used local raw materials, aided other activities and produced basic consumer goods. In the first three months after liberation up to August 1991, 29 factories were started up and all 43 public enterprises in the industrial sector were operational by 1992.

There is a lack of comprehensive data on public investment over the past three years. However, the limited official statistics available show capital expenditures by the public enterprises accelerated sharply in 1993; from below birr 9 million in 1992, capital expenditures made by the public sector enterprises increased by almost 150 per cent to reach over birr 21 million in 1993. Capital investment in building increased by more than 6-fold to birr 6.8 million in 1993, while capital investment in machinery more than quadrupled in that year.

Although capital expenditures stagnated in 1994, between 1992 and 1994, they cumulatively increased by an impressive birr 55.8 million over the period.

Table II.10. Capital expenditure by public enterprises, 1991-1994
(Thousand birr)

Capital expenditure	1991 June-December	1992	1993	1994
Building	11	1,008	6,832	1,032
New vehicles	1	1,988	5,227	2,508
Office equipment and furniture	32	224	978	392
Production machines	10	2,020	8,783	17,546
Others	3,457	3,631	141	
TOTAL	**3,511**	**8,871**	**21,962**	**21,478**

Source: Official sources.

Private sector

As with the public sector, there is a lack of statistics on investment trends by private sector manufacturing enterprises. According to the Ministry of Trade and Industry, by early 1993, licenses had been issued to set up more than 200 enterprises in the private sector, with an estimated capital investment of $6 million and expected employment of more than 1,000. About three-quarters of these were permanent licenses - *i.e.* those issued to enterprises fairly advanced in their setting up stage. The fact that so many entrepreneurs are applying for licenses is an indication of the positive response to the steps taken so far by the government to promote private sector development.

F. INDUSTRIAL LOCATION

As mentioned in Chapter I, Section B, the vast majority of large scale industrial enterprises are state owned and are concentrated around Asmara. In fact, according to official data, more than 90 per cent of manufacturing firms are located in Asmara, and a further 5-6 per cent is located in Massawa. There is considerable potential for industrial development in Massawa and to this end, there are plans to designate Massawa a free-trade zone. Aware of the need for balanced regional development, the government has stated its intention to implement a policy of decentralization. However, given the widespread infrastructural bottleneck outside the capital, the government will need to provide significant pecuniary incentives to make this attractive to the private sector.

G. ENVIRONMENTAL ISSUES

Eritrea's main environmental concerns relate to the degradation of land and forestry resources and the lack of quality water resources. Thankfully, environmental problems such as industrial pollution and pollution of coastal waters are not significant at the moment.

The rapid deforestation that has occurred is the result of tree felling for wood and fuel and construction purposes, and the clearing of land for agriculture; both of which have been exacerbated by an increasing population. Ominously, the loss of tree cover has led to serious ecological problems including a reduction in the water holding capacity of the watersheds, an increased silt load in rivers resulting in rapid siltation of irrigation dams and reservoirs, loss of nutrients to the soil and therefore reduced soil fertility, and loss of gene resources.

The question over availability of water resources varies in rural and urban areas. In the rural areas, the lack of water in the form of rainfall or access to irrigation, is a major constraint on agricultural productivity. Difficulty in accessing drinking water for human consumption or for watering livestock undermines productivity and health, while bacteriological contamination of water contributes to high morbidity rates of children. In the urban and coastal areas, the major problem with the of water availability is its constraining influence on industry, and business activities in general.

It is appropriate to note that large-scale soil and water conservation programmes to address land degradation were first initiated under Italian colonial rule. Throughout the war of liberation, relief agencies and foreign donors continued to provide Eritrea with substantial assistance for soil and water conservation programmes. The World Bank estimates that approximately $116 million of food for work assistance was allocated for water and soil projects between 1979 and 1992. Most of these projects were concentrated in food deficit areas of the highlands. While this work appears to have been undertaken with competence, results of the country's overall conservation programme in terms of productivity and fertility gains, reduced sedimentation and accelerated recharging of aquifers are less certain. Considerable further investment is needed for this type of conservation work.

The government has attempted to encourage reforestation on communal and public land as well as tree planting by individual households. At least 50 government and 23 community-based tree nurseries have been established throughout the country, providing tree seedlings free of charge for community and government plantations and to individual families. In the case of the latter, this has led to a successful programme of tree planting, notably eucalyptus, within household compounds providing valuable and scarce source of building material and waste products used for fuel. Tree planting on farmland however, has rarely taken place as the land tenure system which until recently the majority of farmers have operated under, has given the planter no long-term security of use. Government supported tree planting schemes have been carried out both on government and community-owned land covering about 10,000 hectares. However, one major problem has been the lack of follow-up and maintenance of young plantations with the result that many trees planted have been damaged or have died.

The government has assigned a high priority to environmental issues stemming from the recognition that sustainable use of the country's natural resources is essential for the country's overall strategy for long-term growth. In early 1995, the government completed the preparation of a draft National Environmental Management Plan for Eritrea and it was expected to be adopted during the first half of 1995. The plan highlights the main areas of environmental concern and lays out the principles for integrating environmental objectives into the national planning process. The plan is seen as a first step in an evolving process to address environmental issues in Eritrea. The government's recent Land Proclamation replaces all preceding forms of land tenure in the country with lifetime usufruct rights to land and this should aid environmental schemes. Initially, this is being introduced on a pilot basis, with national adoption set at a later stage.

H. TRADE IN MANUFACTURES

Except for figures for 1993, and in some cases, preliminary estimates for 1994, a time series of industrial trade disaggregated by sector is unavailable. Given that Eritrea only recently became decoupled from Ethiopia and that the two countries still remain locked in a de facto currency union, it is hardly surprising that the trading relations of the two countries remain intertwined. Eritrea is the major importer of the industrial products from Ethiopia (see Table II.11), and Ethiopia in turn is the largest market for industrial products. In effect, Ethiopia is the main source and the principal destination of Eritrea's manufactured products.

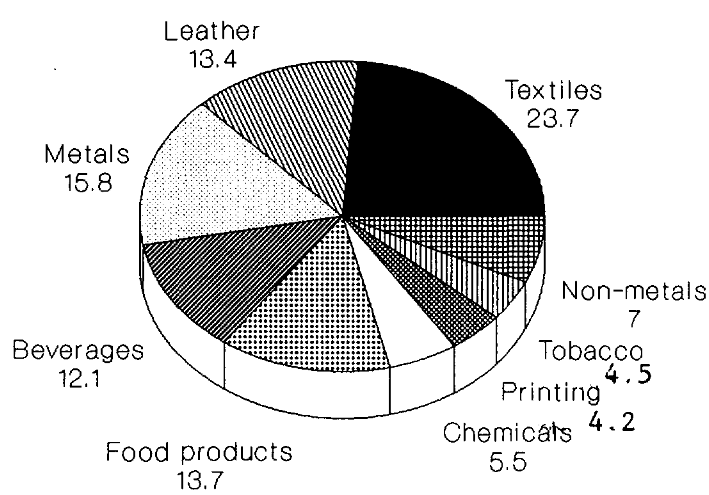
Table II.11. Profile of industrial exports, 1993
($ million)

Sector	Exports to Ethiopia	Exports to Europe and Asia	Total trade	Percentage of total
Textiles	22.8	2.5	25.3	33.5
Leather & shoes	22.5	4.4	26.9	35.6
Beverages	8.2	-	8.2	10.9
Chemicals and salt	6.9	-	6.9	9.1
Metals	5.4	-	5.4	7.1
Non-metals	1.2	-	1.2	1.6
Printing	-	0.9	0.9	1.2
Food	0.3	0.5	0.8	1.1
Tobacco & matches	-	-	-	
Total	**67.3**	**8.3**	**75.5**	**100.0**

Source: Ministry of Trade and Industry.

According to Ministry and Trade and Industry data, aggregate manufactured exports in 1993 amounted to some $76 million, of which some $67.3 million or some 90 per cent were destined for Ethiopia. The largest components of these exports, by sector category, were textiles and leather/shoes each of which contributed roughly one-third of total exports, with a further 10 per cent accounted for by exports of beverages.

Fig. II.D. Composition of exports, 1993 (Percentage)



According to preliminary official data, total industrial imports amounted to just over $81 million in 1994. The bulk of these were utilized by the textiles, metals, and food sector, which together, accounted for over 53 per cent of the total for the year. An additional 26 per cent of aggregate industrial raw materials were consumed by beverages and leather/shoes sectors.

Table II.12. Raw material imports by sector, 1994

Sector	Total imports ($)	Percentage of total
Textiles	19.4	23.7
Leather & shoes	10.9	13.4
Metals	12.9	15.8
Beverages	9.9	12.1
Food	11.2	13.7
Chemicals	4.5	5.5
Printing	3.7	4.5
Tobacco & matches	3.4	4.2
Non-metals	5.7	7.0
Total	**81.6**	**100.0**

Source: Ministry of Trade and Industry.

I. SCOPE FOR INTERNATIONAL COOPERATION

Given the dearth of domestic resource capabilities, Eritrea's reconstruction and long-term development will necessitate large infusions of donor assistance for the foreseeable future. The country received negligible aid until the declaration of independence in 1993. A $106 million recovery programme was then established to run for three years until 1996. The largest contributors were the International Development Association (IDA) which committed $25 million, Italy which promised $24.3 million and the European Union which gave $23 million. Other contributions came from Sweden ($9.1 million), Denmark ($6.5 million), Germany ($5.5 million), the Netherlands ($2.2 million) and the United Nations Development Programme ($2.5 million).

Some of the major aid packages made available in 1994 included:

- ECU 62 million from the EU for water supply, health and rural development projects, and an additional ECU 35 million for other humanitarian aid;
  ECU 3.7 million from the European Development Fund for health, veterinary and drinking water projects and for the resettlement of Eritrean refugees;
- Francs 22 million from France to boost electric power and repair Asmara airport and other projects;
- $12 million from the World Food Programme for an emergency programme to assist 500,000 people suffering from serious food shortages;
- $1.25 million from Italy in food aid;
- Birr 11 million from the UK for various development projects;
- ECU 35 million ($39 million) under the Lomé IV agreement for rehabilitation projects;
- DM 32.5 million from Germany for financial cooperation, food aid and rehabilitation of returning refugees. DM 2.5 million for drinking water projects;
- $3.36 million from Sweden; and
- ECU 20 million from the EU for the remaking of the Asmara-Massawa road, construction of dams, rehabilitation of primary schools and healthcare.

At the end of 1994, the World Bank held its first consultative group meeting on Eritrea, which brought pledges of about $250 million to fund further rehabilitation and development programmes. Of this total, $30 million was promised from the European Union, ECU 8 million from the European Investment Bank (for telecommunications), $34 million by the African Development Bank in loans for 1995. For the period 1995-1997, the United Nations Development Programme (UNDP) pledged $40 million and $18 million is expected to come from the UN International Fund for Agricultural Development for an irrigation scheme in the eastern highlands.

At the 1994 Paris meeting, the following bilateral pledges were also made:

- $50 million from Italy, 60 per cent of which was to be released in 1995;
- $4 million from Germany mainly for the resettlement of refugees, private-sector promotion and agricultural development;
- $6 million from the Netherlands for retraining fishermen and for a drinking water scheme in Keren;
- $1 million from the UK;
- $8 million from Norway;
- $4.3 million from Finland;
- $45 million from Denmark for the period 1995-1999;
- $7 million from the Caisse française dévéloppment for repairs to Asmara international airport and for small enterprises;
- $16.5 million from Kuwait for an electricity project and $1 million for public works (in addition to a $25 million commitment to buy generators for a power plant in Massawa); and
- $5 million grant from Saudi Arabia for mosques and $55 million in concessional loans for electricity, a road between Barentu and Mendefera and agricultural work.

In addition to the above, the US Government channels $35 million per year to Eritrea in cash and kind through USAID. Clearly, the breadth of bilateral support being enjoyed by Eritrea is a manifestation of the strong goodwill the country enjoys from the international community.

III. INDUSTRIAL BRANCH PROFILES

A. FOOD PROCESSING AND RELATED AGRO-INDUSTRIES

FOOD

The resource base

Agriculture is the mainstay of the economy, with the majority of the population depending on it for their livelihood. This sector contributes approximately 40-50 percent of the GDP and about 70 percent of the export earning in the country. Production is predominantly of the subsistence nature. Of the total area of 12.4 million hectares, about 3.2 million hectares or (26 per cent) is suitable for agriculture, but only 10 per cent of this is under cultivation.[1/] Eritrea has favourable climate suitable for growing a variety of crops, including cereals, pulses, oilseeds, fruits, vegetables, tobacco and cotton.

Fishing is the other major potential of the economy, as Eritrea is endowed with abundant fish and marine resources including shrimp and lobster beds, tuna, mackerel, snapper, barracuda, grouper, anchovy, and sardines. The country's 1,000 kilometre costal line bordering the Red Sea combined with the continental shelf shores of some 52,000 square kilometres within the country's exclusive economic zone,[2/] and its pristine waters provide the capacity for producing up to 66,000 tonnes of fish and sea food annually. Indeed, the Eritrean Red Sea water alone consists of around 1,000 known species of fish and 220 species of coral.[3/]

Presently, Eritrea is not self-sufficient in food production and it depends to a large degree on imports to meet domestic requirements. This makes agriculture and fishing not only significant in the on-going efforts to rejuvenate the economy but also the sectors hold significant potential for substantial profit generation by investors.

Recent trends

Cereals

The major traditional staple foods are sorghum, millet, wheat, barley, maize and teff. In recent years, cereal output has averaged 122 thousand tonnes annually (see Table III.1), compared to a total notional annual food requirement of 579 thousand tonnes.[4/] In a bid to improve food production, the government has recently been shifting towards improved irrigated agriculture by encouraging the private sector to play as a lead actor.

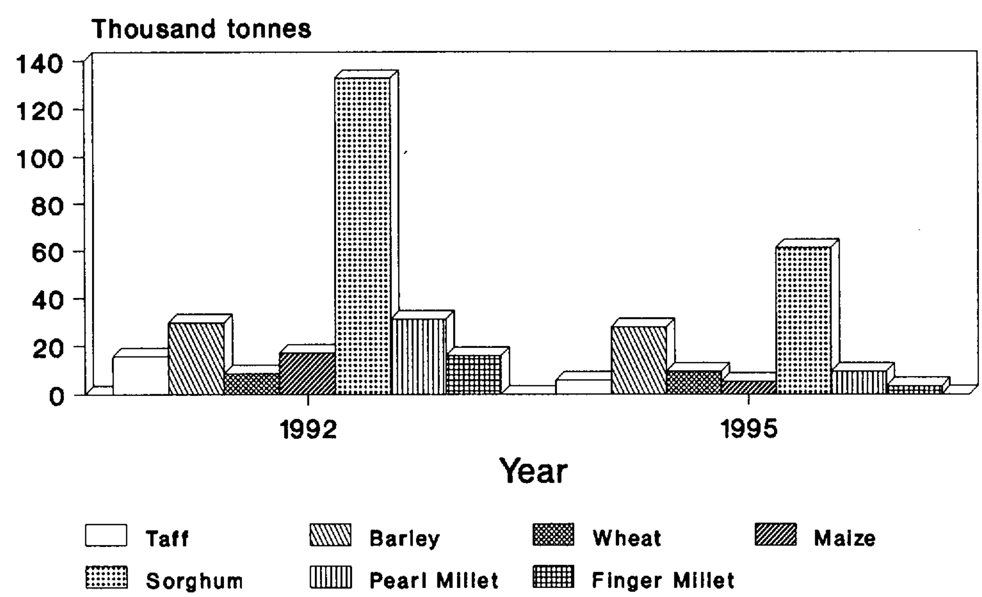
Table III.1. Food crop production of cereals, 1992-1995
(Thousands tonnes)

Type of cereal	1992	1993	1994	1995
Taff	15.60	2.22	14.85	5.76
Barley	29.89	9.73	29.42	27.95
Wheat	8.60	5.40	14.99	9.56
Maize	17.15	5.54	19.86	5.35
Sorghum	132.84	4.86	120.44	61.01
Pearl Millet	31.30	4.38	42.48	9.33
Finger Millet	16.10	14.72	16.47	3.45
Total	**51.30**	**86.85**	**253.41**	**122.41**

Source: Ministry of Agriculture, *Crop Production 1992-1994*, Revised Version May 1995, Asmara, Eritrea.

Food imports have increased sharply in the recent past; from birr 112.88 million in 1992, aggregate imports more than quadrupled to birr 469.57 million in 1994. Most of the cereals are imported from Ethiopia and the Sudan, except wheat and wheat flour which is often imported from the western countries.

Fig. III. A. Production of selected cereals, 1992 and 1995 (Thousand tonnes)



As part of the on-going Agricultural Recovery and Rehabilitation Programme, the IDA has earmarked $ 5.41 million for procurement of farm machinery, vehicles, office equipment and supplies. Italy committed $5.01 million for the procurement of agricultural inputs like fertilizer, vegetables and forage seeds and pesticides. In the addition, the EU is providing $4.34 million for procuring construction equipment and seeds, while the Netherlands is providing support to the tune of $1.43 million for the procurement of agricultural inputs, including some $600,000 allocated for training and technical assistance.[5/]

Pulses

Pulses are cultivated in the highlands of Eritrea, and these serve as domestic complimentary food sources. The data presented in Table III.2 pertain to production trends of pulses in the last four years.

Table III.2. Production of pulses, 1992-1995
(Thousand tonnes)

	1992	1993	1994	1995
Horse bean	2.6	0.61	2.02	1.07
Chick Pea	2.3	0.4	1.14	2.74
Field Pea	1.1	0.52	0.97	0.71
Total	**6.00**	**1.53**	**4.13**	**4.52**

Sources: Ministry of Agriculture, *Crop Production Assessment*, Asmara 1992-1994, Revised Version May 1995, *Preliminary Crop Assessment Summary of 1995*, Asmara, 1995.

Oil seeds

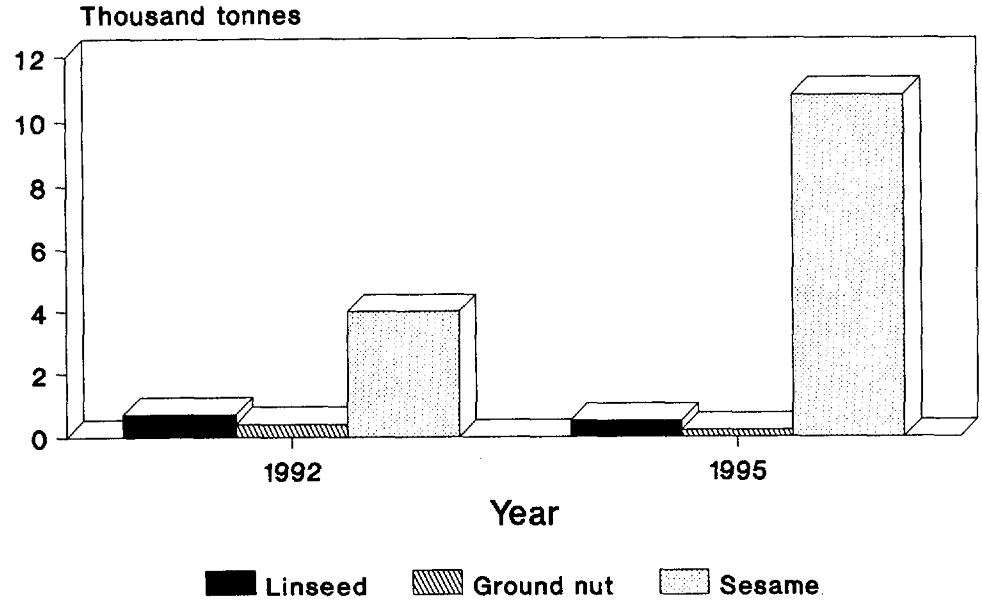
Most part of the western lowlands of Eritrea are suitable for growing oil seeds. Particularly, sesame has high demand for export and domestic markets. Aggregate production of oil seeds has rebounded strongly since the early 1990 from just over 5,000 tonnes to 9,000 tonnes in 1993, further rising robustly to an estimated 11,700 tonnes in 1995. Much of the strong growth has stemmed from an enhanced out-turn in sesame output.

Table III.3. Production of oil seeds, 1992-1994
(Thousand tonnes)

	1992	1993	1994	1995
Linseed	0.70	0.35	0.67	0.53
Nihug	-	-	0.40	0.02
Ground nut	0.40	3.36	1.51	0.27
Sesame	4.00	5.96	6.22	10.88
Total	**5.10**	**9.67**	**8.80**	**11.70**

Sources: Ministry of Agriculture, *Crop Production Assessment*, Asmara 1992-1994, Revised Version May 1995, *Preliminary Crop Assessment Summary*, Asmara, 1995.

Fig. III. B. Production of oil seeds, 1992 and 1995 (Thousand tonnes)



Fruits and vegetables processing

Most farmers grow vegetables at the household level and on a small scale. Despite the fertile soil and favourable domestic agro-climatic factors, the sector remains rudimentary. Indeed, while output is dominated by the private sector, this has failed to keep pace with demand. The government's participation in the sector is limited to state-owned enterprises at Elabered, Ghindae and the Mai-Aini Estate Farms. Table III.4 present data on the output of State farms.

Table III.4. **Production of citrus fruits and vegetables by State farms, 1991-1995** (Tonnes)

	1991	1992	1993	1994	1995
Orange	432	3,033	3,858	3,528	3,549
Lemon	150	1,350	1,150	937	537
Mandarin	127	340	429	396	272
Grape fruit	210	836	755	530	350
Grape vine	-	-	12	10	22
Papaya	1	1	34	638	655
Mango	-	355	317	470	417
Banana	-	-	1	25	17
Tomato	-	561	614	500	633
Tomato paste	533	570	486	586	1,000
Green pepper	-	5	18	32	16
Total	**1,453**	**7,051**	**7,674**	**7,652**	**7,468**

Source: Ministry of Agriculture, Department of Commercial Agriculture, Asmara, 1995.

The government has allocated some birr 9 million to rehabilitate the Elabered farm. Critically, the government is aiming to restructure these enterprises before divesting from them.

Tobacco

Private farmers in the vicinity of Toccombia and Gash river are encouraged by the government to plant tobacco through irrigation during the dry season; and to use the same area to grow sorghum or sesame using rain-fed agriculture in summer. There is also a state-owned virginia type tobacco plantation where the tying and curing sections are installed, which supplies the private farmers tobacco seedling.

There is one factory that processes tobacco leaves in the country with a total production of 250 tonnes, of which 210 tonnes are in the form of smoking cigarettes and the remaining 40 tonnes comprise chewing cigarette. The country imports substantial tobacco raw materials for the state-owned factory since aggregate tobacco production are adequate to meet just 5 -10 per cent of the raw material demands of the factory.

Since 1992 the government has invested significantly in the state plantation with the aim to supply up to 140 tonnes of tobacco leaves in the coming 5 years. Backed by the significant investment in the subsector, the government is hoping that the country will become a net exporter of tobacco in the medium-term.

Fishing

In 1950 and 1960s, fish production, mainly for export, amounted to over 25,000 tonnes annually. However, the level of fish exports declined to 21,000 tonnes in 1966, falling further to 14,000 tonnes in 1967 mainly due to the closure of the Suez Canal. The intensification of the armed struggle provoked a further sharp decline, as fish exports collapsed, with total exports registering 4,000 tonnes in 1972, and tumbling further to a paltry 328 tonnes in 1980. Although output has rebounded somewhat in recent years, current production amounts to just 1,000 tonnes per year.[6/]

A number of foreign companies have shown interest in investing to exploit the living marine resources and since 1994, ten companies have signed agreements to commence operation by investing little over 20 million US dollars[7/] in the sector.

Constraints and prospects

Within the agricultural sector as a whole, the main constraint to production remains the unreliable rainfall pattern, the constraints imposed on output by traditional farming itself and the lack of inputs, including a chronic lack of pesticides to combat the periodic pest infestation. The absence of irrigated facilities has made the sector extremely vulnerable to the vagaries of the weather, while the rudimentary infrastructural facilities which exist has adversely impacted on effective marketing and distribution of produce. Within the fishing subsector, the absence of infrastructural facilities, in particular, has acted as a major bottleneck.

The main opportunities within the food industry may be found in fruit and vegetable processing, the tobacco subsector and in fish and fish products. Indeed, tobacco represents a major source of income for farmers, but more exciting is the sector's undoubted potential as a significant foreign exchange earner. In particular, along the river banks lies extensive areas which could be fruitfully taped for tobacco production. But, with the country's heavy endowment of extensive resources of fish and other marine resources, perhaps the biggest potential can be found in the fishing industry, particularly for export. Yet, while agriculture as a whole presents modest opportunities for potential investors, it is unlikely that the sector's potential can be meaningfully harnessed without the development of irrigation facilities. It is in this context that the large number of small scale irrigation facilities which have begun to mushroom across the country represent a welcome relief for both the government and the country's overall prospects.

B. TEXTILES AND CLOTHING

COTTON

Resource base

The western lowlands and the south eastern lowlands of Eritrea are suitable for cotton production. The potential for cotton plantation is particularly favourable along the Gash river although a very limited area has yet been developed. Aligheder Estate Farm is the only large scale irrigation scheme in the country that exploits the river Gash. Aligheder farm was a 16,000 hectare concession located on the left bank of the Gash and developed by S.I.A Pvt. Ltd. Co. Of this area, 8,268 hectares were equipped for irrigation and over 5,000 hectares have been devoted annually for cotton plantation.

Recent trends

The plantation produces long staple Acala type cotton, from which 35 per cent lint cotton, 58 per cent seed cotton and 7 per cent trash is extracted. Currently, the three textile industries are able to get a supply of cotton sufficient for seven months from the limited state and small-scale privately-owned cotton plantations that exist. The raw cotton is ginned in one of the textile factories, the lint cotton is sold to the three textiles factories and the cotton seed is sold to one edible oil factory.

During the war it was not possible to grow cotton on commercial basis but since 1993 the area for cotton cultivation has been increasing (see Table III.5). In 1994, 31 per cent of the annual demand of textile industries was satisfied and in 1995 about 65 per cent of the annul demand for cotton of the textile industries was met.

Table III.5. Cotton production in Aligheder, 1993-1995

	1993	1994	1995
Area (Ha)	406	2,441	3,854
Raw cotton (tonnes)	460	4,300	6,937

Source: Ministry of Agriculture, Aligheder Agricultural Development Project, Asmara 1995.

There are three public factories that produce cotton yarn and fabrics, and acrylic-yarn fabrics. The total demand of cotton by these textile factories is about 4,830 tonnes of lint cotton per year. While these three factories together get raw cotton sufficient for seven months from domestic sources at present, the balance is imported mainly from Ethiopia. It is estimated that the total demand of the existing textile industries in the country will be satisfied in 1997 and export of cotton is projected thereafter. In addition, the expansion of cotton plantation will also supply the cotton seed requirements of the oil pressing industries which currently rely to a large degree on imports.

Since April 1993, substantial quantities of machinery, equipment and manpower have been allocated to make production commercially viable. Over the short-to-medium term, the Aligider project is set to cultivate 5,000 hectares of cotton to accommodate domestic demand for cotton, as well as, to install jinnery, and a seed delineating and briquette plant. In the long-term, there are plans to build a dam to supply a continuous flow of irrigation water to the Aligheder project to underpin the planned cultivation of some 12,000 hectares of cotton, fruits and vegetables, mainly for exportation.

DOUM-FIBRE

Resource base

Natural doum-palm trees which represent the sources of jute for the existing fibre industry grow in Barka, Gash Setit and Denkel provinces extensively. However, the fibre processing from Doum palm trees is currently confined to the vicinity of Agordat-an administrative capital of Barka province. There are suitable areas on the eastern escarpments in which sisal production had been tested in the past and that can be rehabilitated and expanded in the future.

Recent trends

There is one public owned factory that produces sacks from jute and fibres. Until recently, the sack and fibre factory used to import from Bangladesh some 4,000 metric tonnes of jute, knif, coating and patching materials annually at an average cost of about birr 17.3 million.

An investment of birr 10.6 million has been made after liberation to rehabilitate the doum-fibre project in the town of Agordat which had been closed for decades. Since the first quarter of 1995, the doum-fibre project has started production and is substituting approximately 20 per cent of the jute imports (about 278 metric tonnes) for the sack and fibre factory.

GARMENTS

Resource base

According to the 1994 statistics of the Ministry of Finance and Development, the textiles and clothing industry annually imports and exports crude and manufactured items worth of birr 132 million and birr 37 million, respectively. While consolidated information is not available regarding the private sector's annual turnover, the public enterprises alone generate about birr 53 million of sales annually. The garment factories totally depend on imported raw materials.

Recent trends

There are one public and eighty-nine private small-scale enterprises in the clothing industry. Out of the ninety factories, seventy-five are engaged in the processing of sweaters from acrylic and wool yarns and the remaining 15 are engaged in the production of ready-made garments.

The total investment is to the tune of birr 17 million, consisting of birr 5 million in the public and birr 12 million in the private sector.

Constraints and prospects

The main problem afflicting this sector is the prevalence of antiquated machinery and equipment. In the cotton plantations, there is need for a significant capital outlay for the acquisition of heavy duty machinery, including bulldozers, graders and excavators to support production levels, while doum-fibre processing and sisal production require initially, substantial investment.

But on the upsides, there exists an extensive coverage of doum-palm trees and abundant land that can be provided for investors on concessionary basis for growing sisal. This could be complemented by the availability of abundant, and well-disciplined labour force. Moreover, the strategic location of Eritrea permits it to be a centre of services and facilities, while investment in garment industries would act to boost production to meet the substantial demand for uniforms locally, and to facilitate exportation to neighbouring countries.

C. LEATHER AND FOOTWEAR

LEATHER

Resource base

Eritrea is one of the countries in the Horn of Africa endowed with a large number of livestock. Although as the result of the war and drought, the livestock population was severely reduced between the mid-1970s and the early-1990s, the advent of peace and relative stability has enabled livestock production to rebound strongly. Table II.6 highlights the trend in livestock production, and de facto the availability of hides for leather production.

Table III.6. Estimated number of ruminants and cattle, 1928-1992, selected years
(Thousands)

Year	Goats/Sheep	Cattle
1928	1,897	749
1938	1,491	591
1946	2,200	1,200
1965	3,200	1,300
1973	5,000	2,500
1987	3,001	970
1990	2,538	942
1991	1,738	538
1992	4,950	1,300

Source: IFAD, Eastern Lowlands, Wadi Rehabilitation Project Report February, 1994.

Crucially, since independence, the livestock numbers haves started to increase, hence, boosting the supply of hides and skins to the leather and footwear industries. The tannery and pickling industries mainly depend on domestic hides and skins as their raw materials,

Recent trends

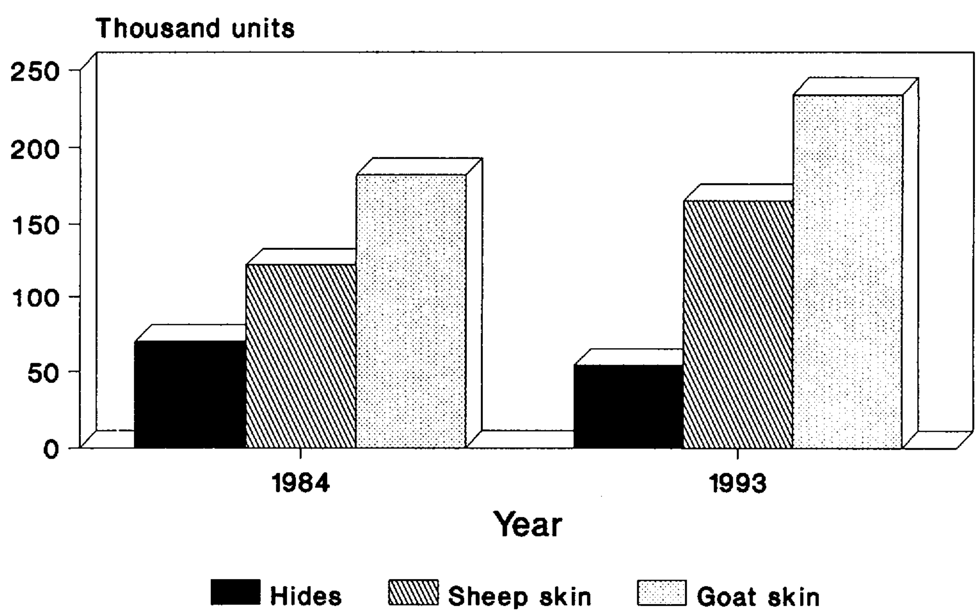
There are seven (two public and five private) factories which are engaged in tannery and pickling processes. At full capacity, the tanneries import about 588 tonnes of hides and skins from Ethiopia and the Sudan, complement domestic supply. Besides, the tanneries and foot wear factories require about 4,323 tonnes of imported chemicals per year.

Table III.7. Production of hides and skins, 1984-1993
(Thousand units)

Year	Hides	Sheep Skins	Goat Skins
1984	70	122	182
1985	78	160	178
1986	60	119	228
1987	62	118	195
1988	52	156	240
1989	56	190	249
1990	49	186	220
1991	-	-	-
1992	54	131	182
1993	54	165	234

Source: Ministry of Agriculture.

Fig. III. C. Production of hides and skins, 1984 and 1993 (Thousand units)



The exports pertaining to hides and skins for selected years are indicated in Table II.8.

Table III.8. Export of hides and skins, 1984-1993
(Thousand units)

Year	Raw			Processed			Total
	Sheep Hides	Sheep Skins	Goat Skins	Sheep Hides	Sheep Skins	Goat Skins	
1984	52	166	161	5	120	166	670
1985	37	126	226	22	186	258	855
1986	-	70	414	28	300	417	1,229
1987	-	-	-	18	240	348	606
1988	-	-	-	-	586	486	1,072
1989	-	-	-	15	216	240	471
1990	-	-	-	9	237	354	600
1991	-	-	-	-	-	-	-
1992	20	12	15	324	49	72	330
1993	21	-	-	37	261	210	529

Source: Ministry of Agriculture, *Annual Reports,* 1984-93.

The total investment in the leather and footwear industrial subsector is birr 69 million, of which birr 53 million is in the public and birr 16 million resides in the private sector.

Constraints and prospects

Inadequacy of veterinary services and traditional skinning and skin handling increase the quantity of defective raw hides and skins supplied to the industry. In terms of prospects, livestock raising is predominant in Eritrea and the value of livestock to the farmers is relatively higher compared to that of food crop production; the phenomenon encourages livestock breeding. Thus leather and foot wear, as well as, meat processing industries have an existing platform which can easily be developed to ensure adequate supply of raw material to meet production for both domestic use and for export.

D. WOOD AND WOOD PRODUCTS

Resource base

The intensive utilization of wood for construction and fuel for decades coupled with the recurrent drought, have meant that only 0.4 per cent of the country's total area is now forested. As a result, Eritrea's furniture producing factories depend almost exclusively on imported intermediate wooden raw materials, including plywood, chip wood, formica and faizit wood.

Recent trends

There are three public owned and eighty private small scale furniture manufacturing enterprises employing about 207 people. It is estimated that this sub sector imports semi processed wood worth of birr 22 million annually and exports manufactured wood worth just birr 3 million annually. The total investment made in this sub sector amounts to about birr 14.7 million.

Constraints and prospects

Though, there is high demand for wood in the country there is a severe shortage of domestic supply to the manufacturing and construction industries. In a bid to redress the problem, the government has launched both public and private afforestation programme which includes enclosures and indigenous as well as exotic tree plantation. But, in the short-term, given the virtual lack of domestic resources to underpin the subsector, the wood and wood products industry seems to offer little prospects for investment.

E. OIL REFINERY

Resource base

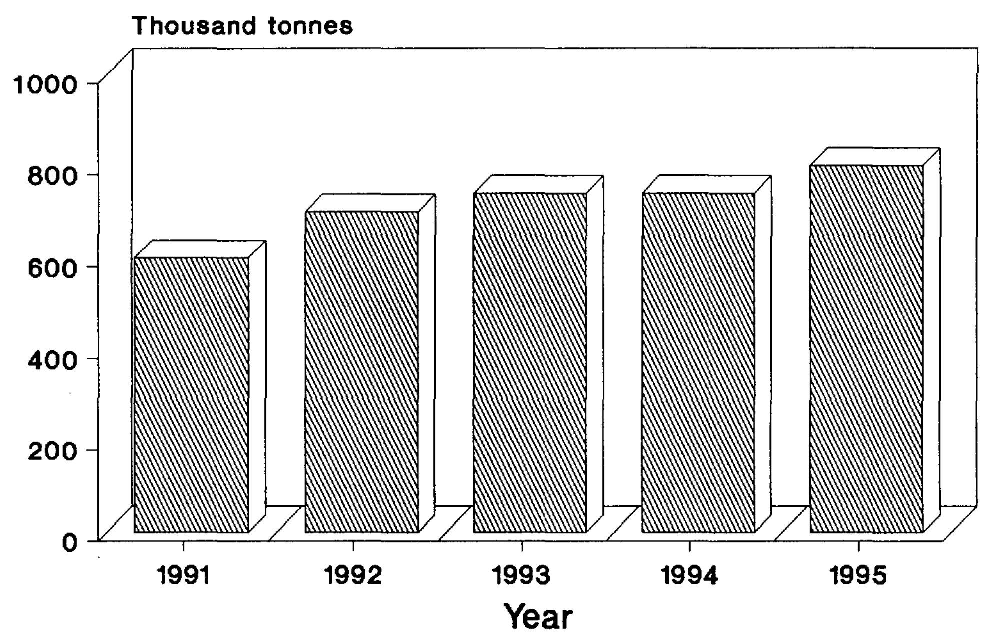
Crude oil for refining is purchased and imported by Ethiopia in accordance with the bilateral agreements made between Eritrea and Ethiopia. From the imported crude oil, different products including liquid petroleum gas (LAG), regular benzin, Jet A-1 kerosene, gas-oil, furnace oil and bitumen are extracted.

Additionally, Eritrea also imports fuel minerals lubricants and related materials. Some companies have started searching for oil deposits along the Red sea coasts. The Ministry of Mines, Energy and Water Resources, has given permission to an American oil exploring company to search oil along the Red-Sea Coasts.

Recent trends

There is one state-owned crude oil refining industry in Eritrea which is located at the port of Assab. This factory was established in 1967. The total annual production capacity of the refinery at present is 800,000 tonnes. It turns out 866.6 million litres, and the sales value is estimated at just over birr 1.0 billion. Out of the total out-turn from the subsector, only about 8 per cent is

Fig. III. D. Production in Assab oil refinery, 1991-1995 (Thousand tonnes)



consumed domestically, while some 80 per cent is consumed by Ethiopia and the remaining 12 per cent is exported to other countries. After the recent rehabilitation of the refinery, production has risen steadily, with output reaching some 800,000 tonnes in 1995. The type and volume of production are presented in Table III.9.

Table III.9. Crude oil processing by Assab Refinery, 1995

Product	Tonnes	Percentage
1. Liquid petroleum gas	6,080	1.0
2. Regular benzin	121,040	15.0
3. Jet-A 1-kerosene	67,760	8.0
4. Gas oil	193,600	24.0
5. Furnace oil	328,560	41.0
6. Bitumen	22,240	3.0
8. Refinery loss	60,720	8.0
Total	**800,000**	**100.0**

Source: Ministry of Mines, Energy and Water, Asmara, 1995.

The initial investment made in the industry was about birr 125.7 million, of which about one third of it is depreciated and since 1991, a total of birr 3.5 million additional investment has been made on the refinery.

Constraints and prospects

The entire machinery for the refinery was made by and imported from the former Soviet Union. Currently, the principal constraint is the shortage of spare parts and lack of technical expertise. But in spite of these, in the near future, it is planned that the capacity will be raised to 1.1 million tonnes. Eritrea is believed to have natural gas and oil deposits along the Red Sea coasts where companies have already started exploring.

F. CHEMICALS

SALT

The resource base

As previously stated, Eritrea has some 1,100 kilometres of coastal line along the Red Sea. The high salinity of the Red Sea, the large flat area close to the sea, combined with the high temperature to accelerate evaporation, provides the potential for the country to become one of the largest salt producers of the world.

Recent trends

In 1907, the Italians established a salt works industry for the first time at Massawa followed by another salt work establishment at Assab. Technologically, Eritrean Salt Works have been equipped with old and outdated equipment. However, the government is rehabilitating and expanding the Eritrean Salt Works with the objective of bringing them to their original production capacity and at the same time refining the output to promote exports.

Besides, to control iodine deficiency and to participate in the global on-going effort aimed at eliminating iodine deficiency disorder by the year 2000, the government of Eritrea in cooperation with UNICEF has implemented the salt iodization programme.

At present, the two salt work factories in the two Eritrean ports of Assab and Massawa are operating below their potential capacities. Production has increased from some 43 thousand tonnes to about 755 thousand tonnes during the last five years (see Table III.10). Of the total production in the five years, 657 thousand tonnes was exported, generating some birr 307 million in revenue.

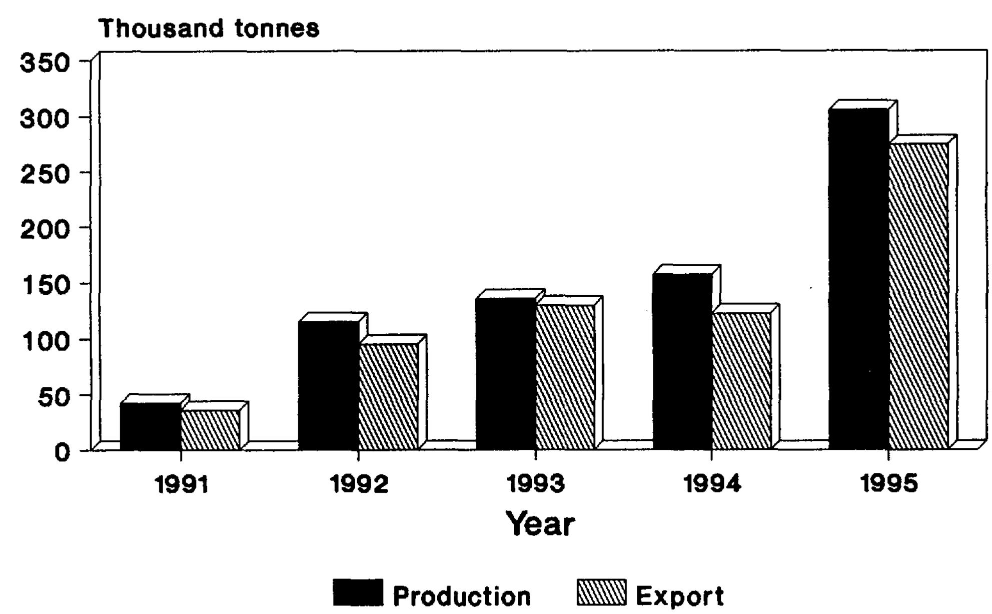
The total initial balance of investment made on the two salt works was birr 19 million of which about 90 per cent was depreciated. During the last five years about 18 million additional investment has been made to rehabilitate the two factories.

Table III.10. Salt production at Massawa and Assab Ports, 1991-1995

Year	Production (Thousand tonnes)	Export (Thousand tonnes)	Export (Million birr)	Additional investment (Million birr)
1991	42.63	35.73	20.39	0.01
1992	115.06	95.27	50.88	5.69
1993	135.57	129.38	63.42	5.55
1994	157.03	122.10	55.82	2.43
1995	305.12	274.34	116.68	4.14
Total	**755.41**	**656.82**	**307.19**	**17.82**

Source: Ministry of Trade and Industry, Asmara, 1995.

Fig. III. E. Production and export of salt, 1991-1995 (Thousand tonnes)



Constraints and prospects

The major constraint is market limitation as the freight charges are exorbitant. But on going expansion should significantly increase foreign exchange earnings as more than 90 per cent of the salt produced is exportable.

G. NON-METALLIC MINERALS

Perhaps the biggest industrial potential of the country lies in the fact that, Eritrea is rich in various non-metallic mineral resources, including granite, marble, slate, limestone, potash, sulphur, gypsum, silica sand, feldspar, mica and asbestos. Silica sand, and marble are available in abundant quantities for glass production.

CEMENT

Resource base

At present, underpinned by the national reconstruction, cement products are in high demand, principally for housing construction and in the development of basic infrastructure. The major raw materials for the domestic cement industry are available on the Red Sea coasts in abundance; while paper bags and chemicals are imported.

Recent trends

There is one cement factory in Eritrea located in the Red Sea port of Massawa. The factory at present has an annual production capacity of 500,000 tonnes of cement. Eritrea is now in the process of national reconstruction practically in every aspect of infrastructure, including roads, bridges, shelter etc and hence the domestic supply of cement is far below the enormous demand.

Constraints and prospects

The cement industry needs large-scale investment which the country cannot afford and requires foreign loan and investment for the acquisition of machinery and technology. Since there is abundant raw material available within the country, the costs can be traded off and investment in this sector will undoubtedly be rewarding.

GLASS

Resource base

As indicated earlier, silica found domestically - the chief raw material for glass manufacture - has one of the highest qualities by world standards. Auspiciously, there are extensive deposits spanning a range of mountains in the southern parts of the country. More than 84 per cent of the value of the raw materials for the glass industry are from the local mineral resources.

Recent trends

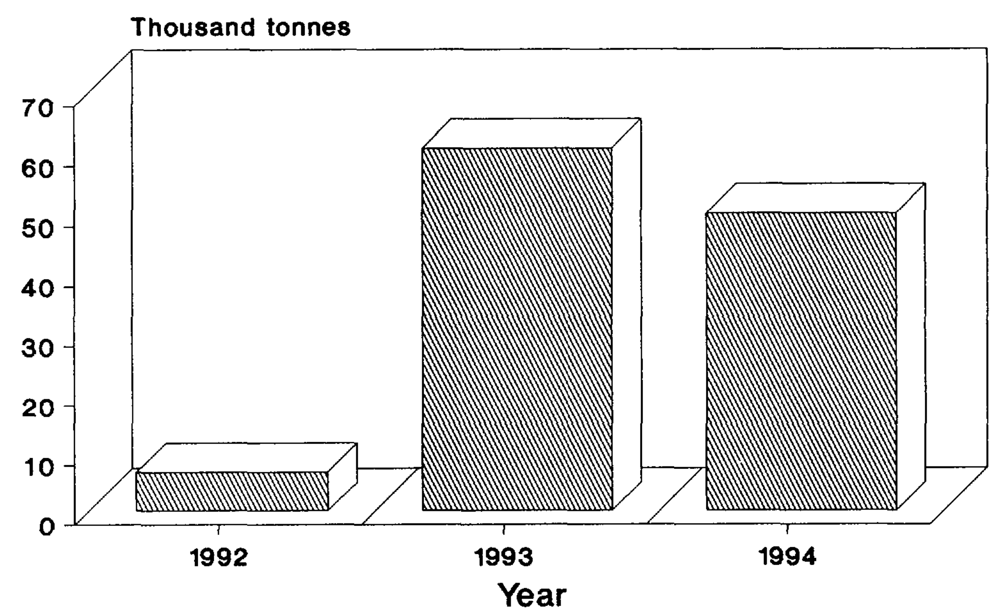
There is one glass factory in Eritrea which produces bottles and glass cups for the domestic market and for export, mainly to Ethiopia. Data presented in Table II.11 highlights production levels between the period 1992 and 1995.

Table III.11. Production of glass, 1992-1994
(Tonnes)

Year	Production
1992	6,510
1993	60,684
1994	49,851

Source: Ministry of Trade and Industry, Asmara, 1995.

Fig. III. F. Production of glass, 1992-1994 (Thousand tonnes)



Given the outdated machinery and severe production difficulties, production has now ceased completely. But a pre-feasibility study to bring production back on stream is under way. According to preliminary indications from the study, the revamped project will have a production capacity of some 70 tonnes per day. The estimated initial investment cost to bring the plant back into production put at about birr 317 million.

Constraints and prospects

The glass industry requires heavy investment. The major advantage in investing in such an industry is that almost the entire raw materials are locally available and therefore, will significantly substitute imports and promote exports, especially, to the neighbouring Middle East and African countries.

H. METALLURGY

Resource base

Major metallic elements such as iron, gold, silver, copper, zinc, lead, nickel and chromium, etc., have been identified as potential deposits.

Indeed, substantial quantities of gold are known to exist in the central high lands including Medrizien, Adishimagle, Hara Hot, Adinefas, Dibarwa, Adirasi; in the Gash-setit area including Augaro, Damishoba, Antore, Sosena and Shelalo; and in southern Seraye. The average head grade in most of the mine sites was found to be as high as 25-45 grams per tonne with reasonably good percentages of recovery after milling. Silver occurs in small quantities associated with the auriferous ore of Okere, Biscia and Chenaudi. Silver is also found in association with other metals in Dibarwa and Adi-Nefas. Base Metals mainly copper, zinc, and lead sulphide have been known to be found in the Asmara region. Nickel, chromium, asbestos deposits (with nickel contents of up to 4 per cent) are also to be found in northern Eritrea, bordering Sudan.[8/]

IRON AND STEEL

Resource base

Commercial deposits of iron ore are known to occur in the areas of Agemeda, Sabur, Gedem Mountains, Wekiro area, Hamasien Plateau laterites and Mt. Tullilui. The iron ores range from sync genetic to manganic ferrous iron ore; residual deposits to heavy mineral ore concentrates associated with beach sand.[9/]

But these has not yet been commercially exploited. With the exception of some local scrap metals required by the foundries, the entire raw material requirements of the steel industry are imported.

Recent trends

The iron and steel industry in Eritrea is engaged in steel processing, household and office furniture production, and bus assembling.

There are two major steel plants, with one engaged in metal works producing products such as nails, bed springs, galvanized wire; the other which has facilities for rolling mill and an electric arc furnace produces mainly reinforcement bars, wire rod and billets from domestically available scrap metals. In addition to these, there is a bus assembling factory which is capable of assembling an average of 10 buses annually for the domestic and Ethiopian markets.

A new electric-arc furnace expansion project of the steel factory is under installation.

NON-FERROUS METALS

Resource base

Geologists confirm that the eastern lowlands, the western lowlands and the central highlands are also endowed with non-ferrous metallic minerals. These minerals have neither been exploited nor been made commercially viable. At present, almost all non-ferrous metals activity are major importers of raw materials, although there is a small export of aluminum products.

ALUMINUM

Recent trends

During the period of Italian colonization, some gold mining areas were delineated and quarrying activities were carried out at Adinifas, Augaro and other areas. In the early-1970s a copper mining facility was operated at Debarwa (30 kilometres south of Asmara) by a Japan's Nippon Company. But as a result of intensification in the war, the plant was compelled to close in 1974; since, then the facilities have been idle.

There are four public industries engaged in processing non-ferrous metals. While three of them produce household utensils made of aluminum, the fourth produces corrugated galvanized sheet of zinc. The three factories annually import about 1,096 tonnes of aluminum and 160 tonnes of tin plate sheet, while the corrugated galvanized sheet producing factory imports about 374 tonnes of zinc ingot and sheets. The three aluminum factories produce mainly enamel, aluminum and tin plates, and various types of household utensils for export see Table III.12).

Table III.12. Exports of aluminum products, 1991-1994
(Million birr)

	1991	1992	1993	1994
Enamel	0.60	1.80	3.70	3.90
Aluminum	0.03	0.20	1.30	0.90
Tin plates	0.08	0.06	0.60	0.60
Other utensils	0.60	1.00	1.40	1.80
Total	**1.31**	**3.06**	**7.00**	**7.20**

Source: Ministry of Trade and Industry, Asmara, 1995.

The government is conducting feasibility studies and has issued licenses to local and international companies which are currently engaged in the search for non-ferrous metals.

NOTES TO CHAPTER III

1/ Ministry of Agriculture, *Agricultural Development Potentials and Constraints*, September 1993, Asmara, Eritrea, p.4.

2/ Ministry of Marine Resources, *Small Scale Investment Opportunities*, Asmara, November 1994, page 3.

3/ Ministry of Trade and Industry, *A study Report on Marine Resources*, submitted to National Business Conference and Exhibition of 12-14 December 1995, Asmara, p. 12.

4/ Ministry of Agriculture, *Preliminary Crop Assessment Summary 1995.*

5/ Program Management Unit (PMU), *Recovery and Rehabilitation Program For Eritrea*, Fourth Quarterly Progress Report, May-September 1994, Asmara, Eritrea. pp. 32-34.

6/ Ministry of Marine Resources, *ibid.*, p. 3.

7/ *Ibid.*, p. 13.

8/ Ministry of Trade and Industry, *Study Report on Mineral Resources*, National Business Conference and Exhibition, p. 15.

9/ *Ibid.*

ANNEX A

STATISTICAL TABLES

Table A-1. Exports of food products, 1994 and 1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Food and live animals			
Bovines, sheep and goats	3,234	9,510	6,707
Meat and swine	14	15	13
Animal butter	1	5	10
Cheese, curd	8	40	9
Fresh, frozen and dried fish	4	9	235
Cereal milled	-	96	-
Cereals unmilled	4	538	221
Cereals husked and popcorn	6	2	-
Wheat wholly milled	2,548	10,004	3,908
Macaroni, pasta	3	38	31
Biscuits and others	17	138	99
Potato (fresh)	29	51	118
Sesame seeds	13,633	6,469	6,588
Legumes	3,928	3,010	1,159
Tomato	10	28	35
Onion and garlic	305	484	934
Vegetables	13	19	5
Powdered legumes and vegetables	31	31	-
Peanuts	17	65	241
Fruits	264	441	1,190
Grapes	1	10	46
Canned vegetables and fruits	-	35	-
Dates	-	6	-
Honey	35	20	120
Sugar, confectionary	262	1,353	596
Food spices	58	926	211
coffee and tea spices	318	305	-
Tomato spices	4	-	-
Mineral water	25	60	-
Soft drinks	166	278	507
Malted beer and stout	889	1,172	1,664
Wine	85	130	3
Beverages with high alcoholic content	839	2,577	839
Hay and fodder	-	9	3
Bran and sharps	-	6	-
Vinegar	-	1	-
Yeast	-	-	2
Cotton seeds	-	-	24
Linseed	-	-	16

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-2. Imports of food products, 1994 and 1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Live animals	109	445	241
Canned, salted and dried meat	8	-	948
Concentrated milk sweetened and canned	2	9	8,736
Milk not concentrated, not sweetened	-	74	-
Powdered milk, canned	4,249	3,805	-
Powdered milk in sacks	1,059	-	-
Animal derived butter	3	75	650
Butter oil	69	295	-
Cheese curd	19	17	37
Eggs, dried eggs	123	85	142
Canned fish (excluding sardines)	66	77	30
Wheat, sorghum, maize, barley	44,597	46,383	20,687
Cereals husked	-	81	-
Rice	1,206	301	213
Wheat wholly milled	8,191	1,352	-
Cereals meals	-	48	487
Cereal milled (sorghum and maize)	-	315	-
Popcorn grain	587	2	211
Canned popcorn	-	384	-
Macaroni, spaghetti, etc.	1,566	1,819	676
Biscuits and similar products	1,296	681	528
Worked cereals meals (FAFA)	-	14	4
Potato (not sweet)	42	113	52
Legumes whether not husked and broken	11,898	3,297	-
Tomato	9	-	-
Onion and garlic	789	2,020	-
Other vegetables (lettuce, green chilies)	-	165	-
Powdered legumes and vegetables	1,869	994	2,341
Canned vegetables and fruits preserved	4	3	4
Canned vegetable, not preserved	499	3	-
Fruits (orange, lemon, apple, banana)	881	1,200	600
Grapes, raisins for industrial use	35	26	94
Powdered fruit for beverages	217	91	1,771
Jam products (canned)	202	216	6
Fruit and vegetable juices (orange, etc)	330	129	235
Tomato juice	-	24	226
Dates	262	1,204	-
Fruits and vegetables (canned)	-	95	-
Sugar	21,234	36,309	45,946
Sugar confectionary	447	41	555
Honey	59	23,059	274
Chewing gum	1,251	126	-
Sugar and honey products	315	28	-
Coffee beans with husks	359	51	-
Coffee husked	1,657	2,691	3,429
Roasted and ground coffee with and without additives	4	5	-
Cocoa powder	-	23	-
Chocolate and cocoa preparation	255	4	8
Tea leaves fore retailing	413	509	2,472
Tea leaves in cans or boxes	-	1,855	-
Food spices mustard, ginger, pepper	182	1,370	1,614
Coffee and tea spices (cloves, condiments)	1,022	74	-
Animal food	96	-	-
Margarine	-	21	-
Tomato sauce	654	249	-
Soups and broths in liquid and solid or powdered	101	27	733
Natural yeast, baking powders	610	1,836	830
Vinegar and substitutes for vinegar	-	1	-
Malt	117	3,093	340
Other edible products (N.E.S.)	-	1	59
Barley unmilled	-	-	2
Maize unmilled	-	-	54

continued

Table A-2. (continued)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Sorghum unmilled	-	-	3,124
Taff unmilled	-	-	15,520
Wheat flour	-	-	1,268
Bran, sharps and other residue of cereals	-	-	4
Oil cakes and residue of sesame cotton seed, peanut solid or powder	-	-	93
Table mineral water (bottled and canned)	163	177	-
Non-alcoholic beverages	169	138	189
Malted beer and stout beer	990	845	294
Grape must in fermentation	-	7	-
Wine	202	68	182
Beverages with high alcoholic contents, Whisky, rum	1,723	3,534	775
Pure alcoholic preparation	-	309	-
Tobacco, not manufactured, tobacco refuse	23	1	600
Various types of cigarettes	5,514	5,688	628
Tobacco for chewing snuff, etc	1	-	1

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-3. Textile exports, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Used clothes	147	-	-
Cotton yarn	2,497	76	11
Table yarn made from flux and others	-	1,164	-
Cotton textiles	1,765	155	5
Cotton fabric and gauze for medicine	134	448	1,545
Canvas and fabrics from woven jute	11	-	-
Woollen textiles and similar	-	4	-
Sacks	845	402	327
Textile made of artificial yarn	-	1,250	3,174
Mosquito net	4	-	-
Bed linen, bed cover, towel, etc	97	676	318
Blankets	81	22	18
Garments of men and ladies	3,794	4,124	4,041
Cotton carded or combed	-	28	349

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-4. Textile imports, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Cotton not carded or combed	4,345	540	1
Cotton carded and combed	1,858	1,177	2,779
Cotton waste	126	-	-
Used clothing	3,119	-	-
Raw silk	-	2	-
Silk	-	1	-
Cotton yarn	178	207	198
Cotton textiles	871	386	-
Cotton fabrics and gauze for medicine	6	194	452
Textile made of artificial yarn	14,798	17,991	17,921
Yarn and textiles made from flax and other fibres	7	34	2,633
Woollen textiles	47	5	-
Silk yarn and textiles	25	34	-
Canvas and similar	3,804	3,413	-
Sacks and cordage	304	884	1,038
Carpets	300	251	193
Paints made of different years	49	38	-
Fishing nets	221	54	-
Ropes, cordage and twice for sheep and boats	81	126	66
Transmission, conveyor or elevator belts from textile materials	31	19	-
Nylon yarn for sweaters	910	505	-
Mosquito net	6	86	1
Sleeping bag	-	7	-
Bed linen, bed cover, table linen, kitchen and toilet towels	434	1,062	535
Blanket and travelling bags	573	715	2,577
Other textiles	11	197	15,633
Fabrics woven, made from animal hairs	-	-	33
Fabrics woven of flax and other fibres	-	-	40
Fabrics woven of jute	-	-	5,164
Fabrics woven, N.E.S.	-	-	200
Product of textile material	-	-	7
Tarpaulin, sails for boats, tents	-	-	4,864

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-5. Exports of leather and footwear, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Bovine hides	1,530	113	-
Sheep and goat skin	3,428	2,622	-
Leather products	165	1	-
Footwear	3,593	10,378	6,096
Soles and parts of footwear	1,714	37	-
Leather (tanned skin and hides)	-	-	3,234

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-6. Imports of leather and footwear, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Leather and hides	43	40	11
Hides and skins of wild animals	7	19	-
Bovine hides and skins, tanned, untanned	-	2	213
Finished leather in sheets, roles of belts of footwear	4	58	234
Articles of leather like saddles, converters	1	8	-
Leather in pieces for eyeglass holders, etc.	30	-	-

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-7. Exports of wood and wood products, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Wood for construction purposes	17	-	-
Wooden frames for doors and windows	4	-	-
Carpets and mates made of bamboo or wooden material	85	80	-
Furniture	162	1,221	539
Veneers, plywood and chip wood	-	4	-
Other articles of manufactured wood	-	1	174

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-8. Imports of wood and wood products, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Wood and logs	244	-	-
Wood for construction	712	706	-
Wood roughly squared	2,461	3,248	5,266
Wooden flooring panel	-	10	-
Wooden boxes and trucks	6	24	-
Bamboo and reed furniture	1	-	-
Wooden handles and models	1	76	-
Wooden picture frames	176	22	-
Veneer, plywood, chip wood, etc	696	2,882	-
Wooden frame for windows and doors and other carpentry works	1,958	28	-
Wooden walking sticks, whips, umbrella handles	12	13	-
Wooden table lamps, cutlery, trays, plates and other works	39	1	-
Bamboo carpets and mats	1	5	-
other articles of wood	6	3	-
Wooden hives, incubators	-	6	-
Wood for match sticks	-	741	-
Kitchen utensils of wood	-	32	-
Densified wood blackboard	-	1	5
Plywood panel and lamented	-	-	2,385
Packing and cable drums of wood	-	-	2
Casks barrels, vats tubes, etc.	-	-	1
Wooden builders carpentry and joiners for doors and windows	-	-	140
Manufactures of wood for domestic use	-	-	119
Manufactured articles of wood	-	-	332

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-9. Exports of paper and pulp products, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Exercise books	-	3	-
Books, periodicals	21	13	9
Cleaning tissues imported to be manufactured	-	184	-
Paper cartons and cases	-	-	1

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-10. Imports of paper and pulp products, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Paper and paper boar in rolls and sheets	68	22	1,759
Printing paper for newspapers	30	206	257
Paper for art and crafts and similar	4	114	423
Printing paper for stamps and similar	44	-	-
Printing paper	192	1,045	-
Filtering paper	3	-	41
Paper board for manufacturing boxes	9	4	524
Wrapping paper	148	773	549
Silver coated paper	44	12	11
Wallpaper and converted paper	18	8	70
Paper and paper board cut to size for cigarettes and others	18	27	-
Carbon paper	27	35	-
Tracing, drafting, duplicating photocopy paper	564	318	323
Copying paper	25	146	-
Envelopes, letters	93	83	99
Foolscap, block note	28	37	-
Articles of paper for calculation, register and telex	63	25	-
Box file and flat file and paper board	24	103	-
Registers	3	33	-
Toilet paper, handkerchiefs, towels and others	408	639	-
Paper trays, plates, dish, cups and others	6	242	-
Exercise books, note books	2,450	337	-
Album, diary, etc.	46	60	231
Cigarette paper in rolls	-	1,470	-
Clean size tissues imported to be manufactured and other	-	81	72

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-11. Imports of petroleum products, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Petroleum oils crude or partially crude	82	571	3
Petroleum products (benzene, petrol, kerosene, white spirit, etc.)	17	-	654
Lubricants, oils and heavy oils	3,015	56	2,020
Residual petroleum products	2	6	-
Wax, paraffin, jelly, petroleum vaseline	136	744	1,875
Natural and artificial gas	12	-	-
White spirit for production of wine and other beverages	-	96	208
Grease	-	3,191	-
Coal	-	-	2

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-12. Exports of chemicals, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Salt	16,263	18,306	27,008
Essential oils	-	14	-
Dying vegetables	-	1	-
Resins	4,029	1,395	5,203
Cosmetics	-	656	193
Incenses	163	174	659
Laundry and toilet soap	483	124	180
Powdered, liquid and dry soap	1,455	2,273	667
Rubber articles	135	118	68
Animal and vegetable oils and waxes	-	3	-
Bottles, glasses, plates and others	135	173	1,295
Slippers and plastic soles	981	-	-
Toys	8	12	17
Combs, hair pins	13	1	-

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-13. Imports of chemicals, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Organic chemicals for oil refineries, dry cell batteries, textile and tyre industry	20	71	814
Organic chemical for weed and pests	-	100	17
Naphthalene	2	-	-
Food additive organic chemicals	90	643	2,050
Soft drinks, additive organic chemicals	-	-	281
Organic chemicals for medical industries	-	10	8
Organic chemicals for alcoholic beverages	48	137	-
Inorganic chemicals for controlling weeds and pests	4,805	1,574	-
Inorganic chemicals for use in medical and related establishments	12	2	1
Inorganic chemicals for oil refineries, batteries, hides, textiles and tyre industries	9,709	3,314	3,764
Inorganic chemicals for other industries	3,005	7,780	-
Acids like hydrochloric acid, sulphuric acid, nitric acid, phosphorous etc.	90	21	217
Inorganic bases	81	748	1,145
Metallic and proxy salts	219	432	325
Mercury	-	13	-
Tannery extracts	51	120	141
Oxygen, hydrogen, nitrogen, etc.	-	-	150
Synthetic organic pigments and paints	166	21	25
Colours and paints for artists	84	209	-
Varnishes and lacquers	1,384	1,373	1,669
Colouring preparation used in chemical works, paint dryer	26	61	459
Henna	99	92	-
Medical and pharmaceutical products	4,740	4,657	7,301
Essential oil for the manufacture of beverages and food	2,571	7	22
Perfumes	327	267	95
Incense, sandal wood, etc.	298	248	-
Tooth pastes and powders	28	33	24
Cosmetics and toilet preparations	397	245	298
Lavatory cleaning powder, baby powder	42	45	375
Laundry soap	2,866	1,719	1,073
Toilet soap	565	795	-
Powder washing preparations	849	652	-
Polymers vinyl chloride of other halogenated olefin	-	-	751
Bleaching preparations	42	140	-
Polishes for furniture, floor, footwear, etc.	18	73	17
Fertilizers, manufacture propellant powders	22	97	-
Artificial resins and plastic materials	437	2,356	-
Disinfectants and insecticides	-	2,800	231
Weed killers	-	313	-
Rat poison	-	3	-
Safety fuses, detonating fuses, ignites, electrification	-	-	1,582

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-14. Exports of non-metallic minerals, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Construction materials			
Manufactured cement	-	10	-
Manufactured lime and pebbles	30	53	12
Clay	30	37	12
Tiles, mosaics, ceramics, etc.	211	169	14
Blocks, bricks, marbles, etc.	18	36	-
Cement tubes and pipes	1	1	-
Sinks, wash basins and others	17	9	6
Refractory bricks	-	19	275

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-15. Imports of non-metallic minerals, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Manufactured lime	3	9	1,804
Manufactured cement	7,504	5,230	1,031
Tiles, mosaics	150	226	10
Marble for monuments	1,379	6	-
Asbestos	103	-	-
Articles made of plaster	-	3	-
Blocks and bricks	2	716	-
Refractory bricks for furnace	96	17	514
Clay tubes and piping for sewage	3	-	-
Glass panels of doors and windows	146	664	-
Glass plates for vehicles	276	176	-
Mirrors and glasses	298	48	262
Clay articles	112	263	-
Glass beads and sand paper	20	26	12
Demijohn, beverage bottles, glasses	-	204	403
Glass sheets	-	-	498
Ceramic household articles	-	-	566

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-16. Exports of iron and steel, 1994-1995 (Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Iron ore and concentrate and scrap	-	8	1,657
Bottle stopper and similar articles	22	-	-
Flat rolls products of iron	-	-	251
Pipes, tubes, nails, vices etc.	119	932	618
Frying oven, stove	48	21	4
Safes, strong boxes, tanks, etc.	4	93	-
Bells and door bells	3	-	-
Hand tools and structures	-	99	33
Household type of electrical equipment	47	-	-

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-17. Imports of iron and steel, 1994-1995 (Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Iron and steel sheets, rods and angular grits for industries	139	612	7,066
Iron and steel sheets, rods and angular grits for construction	2,286	5,529	-
Cylinders of iron and steel	183	41	-
Iron and steel container tanks and barrels	1,059	285	-
Iron and steel tubes, pipes, cables, barbed wire	662	1,123	9,866
Nails, vices, bolts, dies of iron and steel	860	359	-
Sewing and knitting needles	3	11	-
Hair pins	11	2	-
Non-electrical stoves, household cooking utensils	2	412	-
Iron wool for scoring kitchen utensils	14	11	-
Hand operated insect pumps and mouse traps	16	22	-
Suspensions	3	50	-
Springs for various vehicles	-	2	-
Flat rolled products of iron or non-alloy steel	-	-	1,235

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-18. Exports of non-ferrous metals, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Jewels made from gold and precious stones	11	-	-
Copper screws, electric wires, etc.	-	1,257	23

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-19. Imports of non-ferrous metals, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Silver unworked	-	5	5
Copper for processing	55	-	7
Copper tubes, pipes and fittings, rod sheets	71	-	209
Copper nails, vices, springs, electric wires (non insulated), non-electrical kitchen utensils	1,489	2,049	268
Aluminium tubes, pipes, rods and sheets	435	372	55
Corrugated zinc, plated sheets	23,518	-	518
Tins and containers made of zinc	41	-	1,045
Tubes, pipes and fittings, sheets and rods, nails	2,279	4,225	-
Vices, washers, nails, wire and springs	467	708	742
Hand tools	2,081	1,969	5,148
Spares and tips for hand tools	50	130	-
Scissors, spoons and forks	707	835	-
Locks and padlocks, key holders and fittings	610	670	785
Non-electrical bells	2	2	-
Stopper, covers for barrels	476	2,672	-
Wires, tube sheets and electrodes	3,872	528	-
Structures, parts and metal containers	-	-	7,949

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-20. Re-exports of machinery and equipment, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Batteries and electrical accumulators	-	-	35
Construction machinery	5	-	-
Food and beverages machinery and parts	619	536	337
Metalwork machinery and parts	2	-	-
Electro-thermic appliances	-	-	9

Source: Ministry of Finance and Development, Asmara, 1995.

Table A-21. Imports of machinery and equipment, 1994-1995
(Thousand birr)

	1994 Third quarter	1994 Fourth quarter	1995 First quarter
Electric producing generators and engines and parts	3,647	3,300	7,081
Motors and engines	2,222	3,029	71,200
Agricultural machinery and parts	3,338	10,560	3,477
Construction machinery and parts	23,371	23,196	50,298
Textiles and leather machinery and parts	10,603	11,468	6,229
Printing and paper machinery and parts	1,092	373	1,286
Food and beverage processing machinery	1,935	3,455	2,089
Wood processing machinery and parts	847	-	840
Metalworking machinery	13,650	16,982	22,430
Big refrigerators	16	143	58
Air conditioners, coolers, ventilators	1,701	701	19
Motor pumps, rotary centrifugal, hydraulic compressors elevators and parts	2,891	5,070	4,901
Lifting and loading equipment	7,695	11,392	7,967
Stoves and ovens	3,517	25	-
Electric typewriters	18	-	-
Typewriters	245	211	207
Cheque writing typewriters	71	130	-
Calculators, cash registers, etc.	330	58	553
Duplicators, photocopies	846	1,870	1,065
Computers and printers and parts	2,805	3,382	5,279
Other typing and calculating machines	64	21	-
Television receivers and parts	5,832	2,000	1,456
Video decks and parts	2,314	1,033	451
Radio, tape, CD tape recorders and parts	2,580	1,833	3,417
Radio receivers and parts	549	821	1,897
Telecommunication equipments and parts	5,186	2,505	5,477
Others	856	2,571	-
Stabilizer, transformer, rectifier, changer	231	2,446	826
Insulated cable for power distribution	590	973	4,056
Switches, plugs, lamp holders, fuse control panels, etc.	6,987	1,145	1,148
Household type electrical equipment	5,478	2,553	4,144
Electro-mechanical appliances	-	-	1,484
Dry cells	616	972	-
Batteries for cars	96	745	2,952
Incandescent lamps	107	211	-
Flash bulbs in flush lights and cameras, small lamps	56	105	-
Electrical equipment for medical purposes	176	15	677
Fluorescent lamps	146	259	138
Ambulances, fire engines, city refuse transporters	421	2,493	34,227
Motor vehicles for road maintenance	690	397	8,906
Public transport vehicles	5,218	20,511	17,197
Trucks	26,133	32,559	38,962
Trailers	1,066	4,306	3,798
Family cars and motor cycles	12,900	7,449	-
Bicycles and delivery tricycles	2,047	1,744	2,337
Spare parts for cars	17,356	10,896	11,163
Land cruises, vans, jeeps, pick-ups and land rovers	25,962	12,081	-
Boats and parts	1,083	490	-
Trains, ships, aircraft	-	1,694	3,873

Source: Ministry of Finance and Development, Asmara, 1995.

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