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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

**INDUSTRIAL DEVELOPMENT REVIEW
SERIES**

DJIBOUTI

Economic diversification through industrialization

Prepared by the
Regional and Country Studies Branch

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SERIES**

DJIBOUTI

Economic diversification through industrialization

PREFACE

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

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

The Reviews draw primarily on information and material available at UNIDO headquarters from national and international sources as well as data contained in the UNIDO data base. A field survey was undertaken in August 1988 in which industry-specific data was collected with the assistance of the Ministry of Industry of the Republic of Djibouti. The presentation of up-to-date information on sub-sectoral manufacturing trends is usually constrained by incomplete national data on the industrial sector. To supplement efforts under way in UNIDO, to improve the data base and to monitor industrial progress and changes on a regular basis, it is hoped that the relevant national authorities and institutions and other readers will provide comments and further information. Such response will greatly assist in updating the Reviews.

The present Review was prepared with the assistance of Dr. Adrian Fozzard as UNIDO consultant. It is divided into two rather distinct parts. Chapter 1 and 2 are analytical in character, giving first a brief overview of the country's economy and its manufacturing sector and then a more detailed review of the structure and development of its manufacturing industries, with a focus on the problems and prospects of selected sub-sectors of manufacturing. Chapter 3 analyzes the problems and prospects of selected industrial enterprises. Chapter 4 reviews policy measures relevant to industrial development and presents information on the more important governmental and other institutions involved in industrial development. Chapter 5 examines the resource endowment for industrialization in Djibouti and identifies crucial areas requiring multilateral technical assistance.

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

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EXPLANATORY NOTE

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

Dated divided by a slash (1987/88) indicate a fiscal year or a crop year. Dates divided by a hyphen (1987-1988) indicates the full period, including the beginning and the end years.

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

Percentage may not add to 100.0 precisely due to rounding.

In Tables:

- Three dots (...) indicate that data are not available or not separately reported;
- A hyphen (-) indicates that the item is not applicable or the amount is negligible.

The following abbreviations are used in this document:

ACP	African, Caribbean and Pacific States
AIDO	Arab Industrial Development Organization
ANDES	Association Nationale pour le Développement Economique et Social
CBI	Caribbean Basin Initiative
CPS	Caisse de Prestations Sociales
CDD	Caisse de Développement de Djibouti
CDP	Chemin de Fer Djibouto-Ethiopien
CFFA	Centre de Formation Professionnelle pour Adultes
DF	Djibouti Franc
DINAS	National Statistics Office
DJED	Djibouti Editions Diffusion
EC	European Community
EDD	Electricity Department of Djibouti
EIB	European Investment Bank
FF	French Franc
FAC	French Aid Co-operation
GDP	Gross domestic product
GNP	Gross national product
ILO	International Labour Office
IMF	International Monetary Fund
ISERST	Institut Supérieur d'Etudes et de Recherches Scientifiques et Techniques
ISIC	International Standard Industrial Classification
KD	Kuwait Dinars
LEP	Lycée Enseignement Professionnelle
MVA	Manufacturing value added

OECD	Organization for Economic Co-operation and Development
ONED	National Water Office
PTA	Preferential Trade Area for Eastern and Southern Africa
SAB	Animal Feed Factory
SEET	Water Bottling Plant
SMI	Service Medical Inter-Entreprise
SOPINAD	Société Portuaire Industrielle Alimentaire de Djibouti
TIC	Internal Consumption Tax
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization

BASIC INDICATORS 1

The economy

GDP (1985)	:	DF60.4 billion (\$339.9 million)					
Population (1986)	:	456,000					
Wage earning labour force (1983)	:	42,000					
GNP <u>per capita</u> (1984)	:	\$276 ^{a/}					
Annual growth rate of GDP (per cent)	:	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984^{b/}</u>
		5.3	4.7	-8.0	4.5	1.0	0.4
		<u>1985^{b/}</u>	<u>1986^{c/}</u>	<u>1987^{c/}</u>			
		0.2	3.6	0.7			
GDP by sector of origin (per cent)	:	<u>1977</u>	<u>1980</u>	<u>1985</u>			
Agriculture, livestock and fishing		3.6	5.3	4.4			
Manufacturing		6.3	7.4	8.2			
Construction and public works		3.2	2.6	3.2			
Services and other		86.9	84.7	84.2			
Average annual rate of inflation (per cent)	:	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
		12.1	5.7	-2.4	0.9	1.7	
Currency exchange rate (DF equivalents to \$1)	:	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>		
		177.72	177.72	177.72	177.72		
		<u>1986</u>	<u>1987</u>	<u>1988</u>			
		177.72	177.72	177.72			

a/ Government's estimate.

b/ Estimate.

c/ UNIDO estimate.

BASIC INDICATORS 2

Resources

Agricultural resources:

Food (1986-87) : 1,815 tonnes (two-third tomatoes,
one-third fresh vegetables)

Livestock (1983) : Goats (500), sheep (350), camels (50),
(in '000 heads) cattle (40), donkeys (6.5)

Fisheries (1987) : Catches (426 tonnes)

Mineral resources : Clay, diatomites, gypsum, perlite, pumice
and salt

BASIC INDICATORS 3

Foreign trade and balance of payments

Exports (1986)^{a/}	:	DF3,628 million (\$20.4 million)
Imports (1986)^{b/}	:	DF33.106 million (\$186.3 million)
Products (1986)	:	Food and drinks (33.5 per cent), diverse machinery (11.3 per cent), textiles and shoes (10.8 per cent), khat (8.3 per cent), petroleum products (7.3 per cent), metal and products (5.9 per cent), chemicals (5.8 per cent), vehicles (5.8 per cent), tobacco (4.2 per cent)
Main origins (1986)	:	France (26.2 per cent), Bahrain (20.5 per cent), Ethiopia (16.0 per cent), Japan (11.0 per cent)
Balance of payments (1987) (current account deficit)	:	DF10,355 million^{c/}
External debt (1987)	:	\$266.5 million
Total debt service (1986)	:	\$7.3 million

a/ The exports identified are mostly goods in transit to or from Ethiopia and Somalia, i.e. re-exports.

b/ Preliminary estimates.

c/ IMF projection.

BASIC INDICATORS 4

The manufacturing sector

Manufacturing value added (MVA) (1985) ^{a/}	:	\$26.2 million (at constant 1980 prices)					
Annual growth of MVA ^{a/} (per cent)	:	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
		5.5	2.9	-0.3	3.3	0.8	-1.6
		<u>1985^{a/}</u>	<u>1986^{a/}</u>	<u>1987^{a/}</u>			
		0.9	1.9	1.7			
MVA per capita (1985)	:	\$61 (at constant 1980 prices)					
Registered employment in manufacturing (1988)	:	808					
As percentage of total registered employment	:	5.3 per cent					

a/ UNIDO estimate.

BASIC INDICATORS 5

Inter-country comparison of selected indicators

	Unit	Djibouti	Central African Republic	Ethiopia	Somalia	Uganda	Zaire
I. Demographic indicators							
Population (mid-1986)	million	0.4	2.7	43.5	5.5	15.2	31.7
Population growth (1980-1986)	per cent per annum	5.2	2.5	2.4	2.9	3.1	3.1
Infant mortality (1985)	per thousand	...	138	172	153	110	103
Area	thousand sq km	22	623	1,222	638	236	2,345
Density (1986)	persons per sq km	16	5	36	9	64	14
II. Economic indicators							
GDP (1986)	US\$ million	340 ^{a/}	900	4,960	2,320	3,310	6,020
GDP per capita (1986)	US\$	783 ^{a/}	290	120	280	230	160
GDP growth rate (1980-1986)	per cent per annum	1.7 ^{a/}	1.1	0.8	4.9	0.7	1.0
Agriculture (1986)	per cent of GDP	4.4 ^{a/}	4.1	48	58	76	29
Industry (1986)	per cent of GDP	18.8 ^{a/}	1.2	15	9	6	36
Manufacturing (1986)	per cent of GDP	8.2 ^{a/}	4	10	6	5	...
Services (1986)	per cent of GDP	76.8 ^{a/}	47	36	34	18	35
Exports of goods (1986)	per cent of GDP	4.0 ^{a/}	20	13	7	12	33
Gross domestic investment (1986)	per cent of GDP	...	15	9	15	14	12
Internal public debt (disbursed) (1986)	per cent of GNP	35.0 ^{a/}	41.6	35.7	54.4	26.8	...
III. Industrial indicators							
MVA (1985)	\$ million	26.2 ^{a/}	55	492	138	130	59
MVA growth (1980-1986)	per cent/annual	0.9 ^{a/}	-0.6	3.9	-3.4	-0.3	-0.7
MVA share in world MVA (1981)	per cent	0.02	...	0.01	0.01
Share of manufactured exports ^{d/} in total exports	per cent	...	26.1 ^{a/}	0.91 ^{a/}	0.36 ^{d/}	0.39 ^{a/}	5.13 ^{a/}

Note: Based on the World Bank data presented in the World Development Report 1988, excluding the data for Djibouti. It should be noted that the UNIDO data base, United Nations statistics, national statistics and World Bank data base do not always tally precisely and, therefore, discrepancies may be found between Basic Indicators 5, and the text Tables.

- a/ 1985.
- b/ UNIDO estimate.
- c/ 1984.
- d/ SITC 5 to 8 less (67 and 68).
- e/ 1980.
- f/ 1981.
- g/ 1976.
- h/ 1978.

SUMMARY

Following a temporary upturn in economic growth in 1986, the pace of economic expansion remains subdued in Djibouti. GDP in real terms grew at an annual average rate of less than 1 per cent during 1983-1988. In the wake of declining international budgetary support, the government's financial situation has become critical.

In an attempt to restore budgetary equilibrium, new fiscal initiatives and austerity measures were introduced in 1987. With an increase in revenue, generated by new fiscal measures rather than an improvement in the country's economic performance, there has been some ease of pressure on budgetary deficit, but it still leaves the government dependent on budgetary support from external aid sources.

The economy of Djibouti revolves around the service sector which accounts for around 77 per cent of GDP and 47.2 per cent of employment, excluding those employed in government departments. The main sources of income are entrepot facilities and services including restaurants, hotels and bars whose main clientele is the expatriate community.

At independence in 1977 Djibouti's manufacturing sector encompassed an ice factory, a soft drink bottling plant, a gas bottling plant, a bitumen factory, several bakeries and pre-fabricated joinery workshops, and in the informal sector a few artisans producing tourist curios, simple clothing, jewellery and traditional sandals. The share of manufacturing in GDP rose from 6.3 per cent in 1977 to 8.3 per cent in 1981, but has since remained relatively constant as a result of pseudo emergence of industrial enterprises which, however, failed to create the base for fostering industrialization. The manufacturing sector's contribution to employment is also limited. Of 15,302 registered employees in 1988, only 808 were employed in manufacturing industries and the artisanal sector.

There are two wholly State-owned enterprises and one mixed enterprise with little participation by the private sector in equity capital. Only ten private sector manufacturing enterprises employing more than 10 persons are identified in the Register of Enterprises for 1988. All but two of these were set-up after independence. The same Register lists only three private companies employing more than 30 persons. The vast majority of enterprises are small businesses employing less than 10 persons.

After two consecutive years of sluggish growth, MVA in real terms grew by 5.5 per cent in 1979 as the manufacturing sector benefitted from the spurt in economic activity in the face of an enthusiastic rush on the part of the donors to help the new State during the years following independence. This momentum could not be maintained, and growth of MVA faltered to 2.9 per cent in 1980 and plunged to a negative rate of 0.3 per cent in 1981. Having recorded a 3.3 per cent increase in MVA in 1982, the pace of industrial expansion suffered a marked contraction with stagnating and declining growth rates. MVA grew by 0.8 per cent in 1983 and faltered to a negative growth rate of 1.6 per cent in 1984. MVA growth estimates of 0.9 per cent, 1.9 per cent and 1.7 per cent for 1985, 1986 and 1987, respectively, reveal an extended period of industrial stagnation in Djibouti.

Djibouti has long served as an entrepot for Ethiopia and Northern Somalia. The manufacturing sector's contribution to exports is negligible. Virtually all raw materials, semi-finished and capital goods used by industries are imported. Development of linkages within the local industries and valorization of local resources could reduce dependence on imported materials, but raw material costs are still likely to remain a heavy burden for the industrial sector.

The State-owned milk factory has suffered losses in three consecutive years because of technical difficulties, poor management and high costs. The factory is in need of substantial rehabilitation and protection from imports. It is too early to assess the performance of the State-owned animal feed factory as production commenced only in June 1988. The water bottling plant, a mixed enterprise, achieved profits during the first two years of its operations, but sales dropped in 1985 and 1986, and the company suffered losses. However, sales rebounded in 1987, enabling the firm to earn a small profit. The performance of private enterprises reveals mixed trends. Installed over-capacity, poor maintenance and interruptions in raw material supplies and spare parts are often cited as principal causes of poor performance. However, eight out of the ten private sector companies studied had recorded profits in 1987.

Bakeries constitute the largest number of enterprises in food manufacturing. They have proliferated in recent years. An ice-cream factory, currently under construction, is expected to produce a brand of ice-cream entirely imported by the promoter. Further developments are expected in the food and beverages sub-sector along the lines of local manufacture of products or brands that are currently imported. A pasta and biscuit factory could be a viable venture, while the construction of a new abattoir could be complemented by a meat processing and packaging plant. The rapidly growing fisheries sector would soon require storage and processing facilities to achieve its full potential.

Plans to build a tannery merit reappraisal in view of its potential contribution to the country's leather industry in terms of value added. The demand for shoes is largely met by imports from the People's Republic of China and area of Hong Kong, totalling 684 tonnes in 1985.

The wood and metal working industries suffer from over capacity considering the size of the local market. Imported finished products, sold at competitive prices, loom a great challenge. During 1987-1988, three companies ceased production. There is little room for further development in this sector.

There are three enterprises engaged in the production of basic chemical products. The construction of a 5 million tonnes annual capacity oil refinery is due to start in 1989. The implementation of this project is expected to give a considerable boost to the country's chemical industry. Despite the dependence on imported plastics and restricted economies of scale due to the country's narrow market, production of plastic products appears realistic. For instance, PVC bottles produced by the water bottling plant are price competitive with imported products.

Despite the availability of suitable mineral resources, Djibouti is almost entirely dependent on imported construction materials. Plans to build a cement factory and a brick factory were abandoned following unfavourable market studies.

It is undoubtedly true that the limited size of the country's internal market is a constraint on industrial development. With a total population of 456,000 in 1986, and a per capita income of only \$276 in 1984, Djibouti's market is certainly small and impoverished. Purchasing power is, in effect, concentrated in the hands of a small proportion of the population, namely the expatriate community and the French Army. The market for consumer goods is dominated by imports, and consumers are accustomed to high quality products, sophisticated packaging and preferred brand names. These factors make it difficult for local products to penetrate the market.

A viable option open to Djibouti is to expand its trade with neighbours and other East African countries. Djibouti is particularly favoured under the terms of Preferential Trade Area (PTA) agreement signed by Djibouti, Ethiopia, Somalia and eleven other African States. At present Djibouti's trade with the PTA countries is minimal - 10.6 per cent of total imports and 9.8 per cent of exports in 1986 - but there is certainly room for growth. However, the relatively more developed industrial sectors in neighbouring countries pose a challenge for Djibouti in penetrating neighbouring markets. Ultimately, successful export-led growth in the industrial sector would depend on Djibouti's ability to overcome a host of constraints, the most important of which is the high cost of production. Djibouti's strategic position in the Red Sea and close cultural and political ties with the Arab States suggest another potential export destination. These countries depend heavily on manufactured imports. Special trade agreements could be arranged by AIDO, with a view to promoting manufacturing enterprises in Djibouti.

The country leans heavily on external assistance. Hitherto, technical co-operation inputs were largely directed to the creation of infrastructural facilities. Industry's share of technical assistance represented only 0.1 per cent of the total technical assistance budget. The government is eager that both multilateral and bilateral technical co-operation inputs be directed towards strengthening the process of economic diversification through industrialization.

RESUME

Malgré une pointe conjoncturelle enregistrée en 1986, la croissance économique demeure très modeste à Djibouti. Au cours de la période 1983-1988, le PIB a progressé en moyenne, à prix constants, de moins de 1 % par an. Les concours internationaux dont bénéficiait le budget ayant décliné, la situation financière du pays est devenue critique.

Afin de restaurer l'équilibre du budget, le gouvernement a, en 1987, pris de nouvelles initiatives fiscales et renforcé les mesures d'austérité. Si l'accroissement des recettes, qui tient davantage aux nouvelles mesures fiscales qu'à une amélioration des résultats économiques du pays, a permis d'atténuer le déficit du budget, celui-ci n'en reste pas moins tributaire de concours financiers extérieurs.

L'économie de Djibouti est centrée sur le secteur des services qui assure environ 77 % du PIB et 47,2 % de l'emploi, à l'exclusion des agents de l'Etat. Les principales sources de revenus sont le commerce en entrepôt et les services, notamment les restaurants, les hôtels et les bars dont la clientèle se compose surtout de résidents étrangers.

Lors de l'accession à l'indépendance, en 1977, le secteur manufacturier de Djibouti comprenait une fabrique de glace, une fabrique de boissons sans alcool, une installation de mise en bouteilles du gaz, une usine de bitume, plusieurs boulangeries et des menuiseries spécialisées dans les éléments préfabriqués, ainsi que - dans le secteur non structuré - un certain nombre d'artisans fabriquant des bibelots pour touristes, des articles d'habillement simples, des bijoux et des sandales de type traditionnel. La part du secteur manufacturier dans le PIB, qui est passée de 6,3 % en 1977 à 8,3 % en 1981, est demeurée relativement stable depuis, à la suite de l'implantation d'entreprises industrielles ou prétendues telles dont la création n'a pas permis de poser les bases nécessaires pour promouvoir l'industrialisation. La contribution de ce secteur à l'emploi est, elle aussi, limitée. Sur les 15 302 personnes officiellement employées en 1988, 808 seulement l'étaient dans les industries manufacturières et le secteur artisanal.

Il existe deux entreprises contrôlées à 100 % par l'Etat et une entreprise mixte, la participation du secteur privé au capital social de cette dernière étant modeste. D'après le registre des entreprises, le secteur privé ne comptait en 1988 que 10 entreprises manufacturières privées employant plus de 10 personnes. Tous ces établissements, sauf deux, ont été créés après l'accession à l'indépendance. Ce même registre ne signale que trois sociétés privées employant plus de 30 personnes. La grande majorité des entreprises sont de petits établissements employant moins de 10 personnes.

Après deux années consécutives de croissance léthargique, la VAM a progressé de 5,5 % en 1979 en valeur réelle; en effet, les donateurs n'ont pas mesuré leur aide au nouvel Etat dans les années ayant suivi l'indépendance, d'où un essor de l'économie dont a profité le secteur manufacturier. Toutefois, il a été impossible de maintenir cet élan et la croissance de la VAM, après avoir chuté à 2,9 % en 1980, est devenue négative en 1981 (0,3 %). Après un accroissement de 3,3 % en 1982, la croissance industrielle s'est sensiblement ralentie et a stagné ou décliné. Le taux de croissance de la VAM, qui a été de 0,8 % en 1983, est redevenu négatif en 1984 (1,6 %). Les estimations du taux de croissance de la VAM pour 1985, 1986 et 1987 (respectivement 0,9, 1,9 et 1,7 %) montrent que l'industrie djiboutienne a connu une période de stagnation prolongée.

Djibouti a longtemps servi d'entrepôt à l'Ethiopie et à la Somalie du Nord. La contribution du secteur manufacturier aux exportations est négligeable. La quasi-totalité des matières premières, des demi-produits et des biens d'équipement utilisés par l'industrie sont importés. Le développement des relations entre les entreprises djiboutiennes et la valorisation des ressources locales permettraient d'atténuer la dépendance à l'égard des apports importés, mais la cherté des matières premières continuera sans doute à représenter un lourd fardeau pour le secteur industriel.

La laiterie publique a subi des pertes trois années de suite à cause de difficultés techniques, d'une mauvaise gestion et de coûts élevés. Elle devrait être rénovée de fond en comble et protégée contre les importations. Il est trop tôt pour évaluer le fonctionnement de l'entreprise publique d'aliments pour animaux dont la production n'a commencé qu'en juin 1988. L'installation pour la mise en bouteilles de l'eau, une entreprise mixte, a réalisé des profits au cours des deux premières années de fonctionnement, mais les ventes ont chuté en 1985 et 1986 et la société a subi des pertes. Toutefois, les ventes ont rebondi en 1987, permettant à la société de réaliser un modeste bénéfice. Le fonctionnement des entreprises privées révèle des tendances contradictoires. Les insuffisances enregistrées à cet égard sont souvent imputées à l'existence d'une capacité excédentaire, à l'inefficacité de l'entretien et à un approvisionnement irrégulier en matières premières et en pièces détachées. Toutefois, parmi les 10 entreprises du secteur privé étudiées, 8 ont réalisé des profits en 1987.

Dans l'industrie alimentaire, le groupe le plus nombreux d'entreprises est représenté par les boulangeries, qui ont proliféré au cours des dernières années; une fabrique de crème glacée, actuellement en cours de construction, va produire une marque de crème glacée qui était jusqu'ici intégralement importée par le promoteur. Le sous-secteur des aliments et boissons devrait évoluer dans le sens d'une substitution des fabrications locales aux produits et marques qui sont actuellement importés. Une fabrique de pâtes et de biscuits pourrait s'avérer viable, tandis que la construction d'un nouvel abattoir pourrait être complétée par celle d'une installation de traitement et de conditionnement de la viande. Le secteur de la pêche est en expansion rapide et l'on aura bientôt besoin, pour tirer pleinement parti de son potentiel, d'installations de stockage et de traitement.

Les plans de construction d'une tannerie gagneraient à être réexaminés vu la contribution que cette entreprise pourrait apporter à l'industrie djiboutienne du cuir en termes de valeur ajoutée. La demande de chaussures est satisfaite dans une large mesure par des importations en provenance de Chine et de Hong-kong, qui se sont élevées au total à 684 tonnes en 1985.

L'industrie du bois et l'industrie de transformation des métaux sont surdimensionnées par rapport au marché local. Les produits finis importés, vendus à des prix compétitifs, posent un problème grave. En 1987-1988, trois entreprises ont dû arrêter la production. Il y a peu de possibilités de développement dans ce secteur.

Il y a trois usines de produits chimiques de base. La construction d'une raffinerie de pétrole d'une capacité annuelle de 5 millions de tonnes devrait commencer en 1989. On compte que la réalisation de ce projet donnera une vigoureuse impulsion à l'industrie chimique du pays. Malgré la prédominance des plastiques importés et la faiblesse des économies d'échelle liée à l'étroitesse du marché intérieur, la production d'articles en plastique semble justifiée. Par exemple, les récipients en PVC produits par l'installation de mise en bouteilles de l'eau supportent, du point de vue des prix, la concurrence des articles importés.

Malgré l'existence de ressources minérales appropriées, Djibouti est presque entièrement tributaire des matériaux de construction importés. Les projets d'une cimenterie et d'une briqueterie ont été abandonnés à la suite d'études de marché défavorables.

Il est incontestable que l'exiguïté du marché intérieur est un obstacle au développement industriel. Le marché de Djibouti, qui comptait au total 456 000 habitants en 1986 et où le revenu par habitant n'était que de 276 dollars en 1984, est certainement petit et pauvre. En effet, le pouvoir d'achat est concentré entre les mains d'une faible fraction de la population, à savoir les résidents étrangers et l'armée française. Le marché des biens de consommation est dominé par les importations, et la préférence des consommateurs va aux produits de qualité, à l'emballage perfectionné et aux marques de fabrique connues. Ces facteurs font qu'il est difficile pour les produits locaux de pénétrer sur le marché.

Une solution viable qui s'offre à Djibouti consisterait à intensifier les échanges avec ses voisins et avec d'autres pays d'Afrique orientale. Djibouti jouit d'un régime particulièrement favorable dans le cadre de l'accord portant création de la zone d'échanges préférentiels (ZEP) signé par Djibouti, l'Ethiopie, la Somalie et 11 autres Etats africains. A présent, les échanges de Djibouti avec les pays de la ZEP sont faibles - ils ne représentaient en 1986 que 10,6 % des importations et 9,8 % des exportations - mais il existe certainement des possibilités d'expansion. Toutefois, pour prendre pied sur les marchés des pays voisins, Djibouti devra surmonter l'obstacle que représente l'existence dans ces pays de secteurs industriels relativement plus développés. Le succès d'une croissance industrielle induite par les exportations dépendra en fin de compte de l'aptitude de Djibouti à surmonter de nombreuses difficultés dont la plus importante tient à ses coûts de production élevés. La position stratégique de Djibouti dans la région de la mer Rouge et ses liens culturels et politiques étroits avec les Etats arabes font signe vers un autre marché d'exportation potentiel. Ces pays sont très dépendants des importations d'articles manufacturés. L'Organisation arabe de développement industriel (OADI) pourrait mettre sur pied des arrangements commerciaux spéciaux en vue de favoriser les entreprises manufacturières à Djibouti.

Le pays est lourdement tributaire de l'assistance extérieure. Jusqu'ici, les activités de coopération technique ont porté principalement sur la création de services d'infrastructure. La part de l'industrie dans le budget de cette assistance n'était que de 0,1 %. Le gouvernement serait heureux de voir les activités de coopération technique multilatérale et bilatérale contribuer à renforcer le processus de diversification économique par le biais de l'industrialisation.

1. THE ECONOMY OF DJIBOUTI

1.1 Recent economic trends

The economy of Djibouti has passed through an extended period of economic stagnation since 1983, with the exception of a temporary upturn in economic growth in 1986. Growth of GDP in real terms averaged hardly 1 per cent during 1983-1988. In an attempt to restore the level of aid payments and attract a wider range of donors the government organized a Donors' Conference in November 1983. This was only a qualified success. Although promises of funding worth \$180 million were received during and after the Conference, these covered only a fraction of the projects put forward. The government's internal financial difficulties have been exacerbated by declining international support which failed to stem the downward trend in budgetary capital receipts.^{1/}

Budgetary support, principally from France, also showed a downward trend in the 1982-1986 period. In order to meet expenditure the government has had recourse to its reserve fund which fell from DF10 billion to DF3 billion between 1981 and 1985. In 1986 the government's financial situation became critical. Receipts on current account fell by 8 per cent and the deficit soared to DF2.3 billion - excluding arrears on debt servicing estimated at DF3.5 billion. On two occasions in 1986 the government had to delay salary payments to the civil service. By the end of the year treasury reserves had fallen to DF500 million. In an attempt to restore budgetary equilibrium the government introduced new taxes on luxury imports and cut expenditure by 10 per cent, by placing a freeze on civil servant promotions and a series of austerity measures.

These measures reduced the current account deficit to about DF640 million in 1987 and it was likely to remain at this level in 1988. Revenues were expected to increase by DF1.1 billion from 1987 to 1988, with the increase generated by new fiscal measures rather than an improvement in the country's economic performance (see Annex Table A-1). This is a considerable achievement but it still leaves the government dependent on budgetary support from external sources. France seems to bear most of this burden. After reducing its support from FF67.5 million in 1985 to FF60 million in 1986, payments were increased to FF82.7 million in 1987 and FF85 million in 1988. High levels of current expenditure on salaries, debt servicing and the armed forces tend to prevent the government achieving its target of budgetary equilibrium and developmental goals.

In 1987, Djibouti's external debt totalled DF47.8 billion (\$266.5 million) compared with DF42.7 billion in 1986. External public debt servicing charges in 1988 stood at DF1.07 billion, representing about 6 per cent of the total budgetary expenditure, and a further DF1.55 billion for the para-public enterprises and publicly guaranteed debt. Most of these loans have been granted on concessionary terms, few of them have been arranged through the financial markets and none are at variable interest rates.

Servicing charges on para-public and publicly guaranteed debt are expected to peak in 1991 at DF2.4 billion, falling steadily to DF2.2 billion in 1996. The government had to fund the servicing charges on the internal public debt, DF280 million in 1988, and pension payments of DF43.5 million.

^{1/} In the wake of declining international budgetary support capital receipts fell by 55 per cent between 1982-1987.

Set against the GDP of about DF60 million, Djibouti is one of the most heavily indebted countries in Africa. The country's debt service payments rose from \$3.9 million in 1984 to \$7.3 million in 1986.

The government depends on capital inflows to finance debt servicing but these inflows have declined in recent years and are likely to decline still further in the medium term. If Djibouti does default on debt repayments it will discourage further overseas investment. Rescheduling is a short-term solution. Taking a long-term perspective, however, further finance will be needed to promote the growth of productive sectors if the government is to generate the funds needed for repayment.

Djibouti's exchange rate is based on a fixed parity with the dollar^{1/} at a rate of DF177.72 = US\$1. In recent years this has proved a mixed blessing. The recent depreciation of the US dollar has led to an increase in the price of non-dollar imports, which accounted for 97.2 per cent of all imports in 1986. Moreover, the free convertibility of Djibouti franc against foreign currencies has allowed capital flight. An IMF mission to Djibouti in 1986 projected a medium-term decline in capital flows from overseas and a consequent deterioration in the balance of payments in the period up to 1991^{2/} (see Annex Table A-2).

Djibouti has had a balance of trade deficit since independence in 1977 and this is likely to remain a prominent feature of the economy in the long term. Virtually all Djibouti's needs are met by imports and there are few exports. In 1986 total imports (c.i.f.) were DF33,106 million^{3/} and exports DF3,628 million giving a deficit of DF29,478 million, which represents about 50 per cent of GDP. The balance of trade has improved since 1982, when the deficit peaked at DF37,965 million, largely due to a reduction in the volume of imports. The value of exports has remained relatively constant throughout the 1980s. Other than the introduction of 5 per cent surtax on most non-food imports in 1982 the government has done little to restrict imports and the decline witnessed since 1982 is a symptom of the country's economic stagnation.

In 1986 exports of animals, in transit from Ethiopia and Somalia, and exports of food, in transit to Ethiopia, accounted for 34 per cent of export transactions. Taking account of these factors World Bank mission^{4/} estimates indicated that external funding was necessary to cover the resource gap, debt servicing and the profits on foreign investment. In the period up to 1982

1/ The parity system is discussed in World Bank, Economic Situation and Prospects of Djibouti, Report No. 4692-DJI, 1984, p. 17.

2/ Cited in Indian Ocean Newsletter, Special Report, "Djibouti: Financial Problems Loom", 1986, p. 7.

3/ Government statistics on exports should be used cautiously. Export statistics do not include exports of non-factor services such as the port and airport. Nor do they include the purchases of special status agencies - principally the purchases of French military personnel, regarded as non-residents, from the local business community. Furthermore, the exports identified are mostly goods in transit to or from Ethiopia and Somalia, i.e. re-exports.

4/ World Bank, Economic Situation and Prospects of Djibouti, Report No. 4692-DJI, 1984, p. 10.

grant funds from abroad covered these payments and even allowed the government to build up foreign exchange reserves. Since 1982 the balance of payments situation has deteriorated, despite a reduction in imports, as grants from abroad have been reduced. This has forced the government to draw on reserves and resort to long-term borrowing.

The price index^{1/} indicates that, after a sharp rise in prices in 1979/80, prices held relatively stable during the 1980-1984 period. With the depreciation of the dollar and the rising cost of vegetables imported from Ethiopia, prices rose steadily from 1985 to 1986. The rate of inflation is thought to have slowed since then. Inflationary pressures, it should be pointed out, are external since the economy produces very little and depends almost entirely on imports other than in the service sector. Djibouti's fundamental problems stem largely from lack of diversification of the economy.

1.2 Economic structure

Djibouti's population was estimated at 456,000 in 1986. With a per capita GDP of \$788 in 1984 Djibouti would appear a strong economy by African standards, but the per capita income data^{2/} conceal the country's true economic situation. According to the government's corrected statistics, GNP per capita was only \$276 in 1984 - well under half the average for African countries.

At independence in 1977, Djibouti inherited an economy leaning heavily on French support in every sphere of socio-economic activity. The productive sectors were virtually non-existent. There were no exports other than sales to the non-resident expatriate community and commissions on re-exports to Ethiopia. All Djibouti's food and consumer needs, other than soft drinks, had to be met by imports. Little attempt had been made to incorporate the vast majority of the rural-nomadic community into the economy.

The economy revolves around the service sector which accounts for nearly 77 per cent of GDP; 36.8 per cent from trade, restaurants, hotels and bars, 8.3 per cent from transport, mainly the port and the railway. Djibouti lacks the means to develop a balanced and independent economy. Levels of education, training and business experience outside the service sector are minimal. High unemployment and the high cost of living discourage saving, while the banking

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- 1/ There is no retail price index for Djibouti. Statistics are based on an index compiled to reflect the consumption patterns of the European expatriate community. Prices are generally high in Djibouti since everything has to bear the cost of freight and importers mark-ups. Most goods are sold at free market prices although the government does control the price of essential foodstuffs and household goods by fixing an upper and a lower wholesale and retail price. The market price list is periodically adjusted to take account of changing costs. Petrol prices are also fixed by the government which manages a price equalization account.
 - 2/ If correction is made for the high cost of living in Djibouti and the presence of a large expatriate community, considered as residents for the purpose of national accounts, the per capita income falls markedly. The trend in the most recent years must have recorded a downward slide in the face of sluggish economic environment.

system, developed to meet the needs of the expatriate and trading communities, is unable to mobilize those domestic savings that do exist for investment in long-term development projects.

Despite these handicaps the young Republic achieved steady economic growth averaging 3.5 per cent per year during the first four years of independence, 1978 to 1982. Public fixed investment grew by 37 per cent over the period reaching DF13,391 million in 1982 - 21 per cent of GDP. There was also a surge of public sector investment, most of which was directed towards housing and transport. In these circumstances it is hardly surprising that the construction sector recorded the fastest rates of growth, averaging 13.8 per cent over the four years. Agriculture, virtually non-existent before independence, also experienced sustained growth, as did the administrative sector.

To a large extent these successes were not akin to the realities of a sustained pace of expansion. Investment was almost entirely funded by aid from abroad, which totalled DF42.4 billion in the first four years after independence, excluding budgetary support and substantial finance for the armed forces provided by France. These payments together with the fiscal opportunities generated by an expanding economy, doubled government revenues in four years and pushed the budget into surplus in 1980 and 1981. Aid payments also protected the current account from the rapid growth in consumer demand and imports, which were, other than a 23 per cent import tariff, unrestricted due to the government's open trade policy. Much of the consumer boom too was funded from the outside, by a sizeable French expatriate community. Free trade gave little opportunity for infant industries to find their footing, while the free convertibility of the Djibouti franc, allowing capital flight, high factor costs and the attractive profits possible from trade discouraged private investment in productive sectors. Despite the rapid growth in the economy up to 1982, private sector registered employment increased by an average of only 1 per cent during the period and in 1982 less than ten per cent of the work force was, officially, employed.

The employment situation appears less dismal if unregistered employment is taken into account. There were approximately 1,300 domestic workers, 3,000 persons in stable employment, 1,500 seasonal workers (most of them employed in the construction industry), and about 2,000 persons with stable jobs outside the capital who were not registered in 1983, represented approximately 20 per cent of the work force. To these may be added the 65,000 nomads - 37,000 of whom are of working age - who, notwithstanding the gradual drift to the capital, take little part in the national economy and cannot be considered as part of the disposable labour force.

Statistics on employment in the informal sector are inevitably shaky but it is true to say that virtually all males without full-time employment are engaged in some informal sector activities. A survey of enterprises in the informal sector by the International Labour Office (ILO) in 1982 identified 427 informal sector enterprises employing 2,543 persons, 41 per cent working in the service sector and 38 per cent in manufacturing enterprises.^{1/}

1/ International Labour Organization, Le Secteur Non-Structuré à Djibouti, 1982, p. 29. This survey ignored approximately 1,100 enterprises engaged in the transport sector (taxis and minibuses) employing 7,700 persons, 1,700 small shops employing 8,500 persons and a potentially larger number of ambulant salesmen. Altogether, at least 24,000 persons were employed in the informal sector at this time compared with 21,902 in registered employment. Since 1982 the numbers are likely to have increased.

Although the informal sector is likely to remain the principal source of employment for the near future, 'mopping up' labour that cannot find work in the formal sector, there is an urgent need to generate employment opportunities in the formal sectors of the economy where employment conditions are better and wage rates are higher. However, the level of wages and supplementary charges together with the complexity of the labour legislation inhibit investment and the creation of new employment opportunities. Given the low levels of private sector investment, levels of training and high wage costs - factors that discourage the creation of job opportunities in the private sector - the government will have to take the lead and this will demand a large public sector financial commitment which the government is increasingly unable to support.

The tertiary sector as a whole accounts for 47.2 per cent of employment, even when those employed in government are excluded. Transport and communications, services (including finance and restaurants, hotels and bars) and commerce are the largest sources of employment. In fact manufacturing and food industries employed only 769 persons, 3.6 per cent of the total work force, at the end of 1987. This was only 70 persons more than in 1978, the year after independence. Even at the peak of the post-independence boom, in 1980, the manufacturing sector employed only 1,189 persons, 8 per cent of the work force.

Djibouti is primarily a service economy. The service sector accounted for 76.8 per cent of GDP in 1984 (see Table 1.1), a proportion that had changed little since independence, despite the government's efforts to promote balanced economic growth. Its main sources of income are the port and the railway, which are dependent on the transit trade with Ethiopia and international commerce, restaurants, hotels and bars whose clientele is the expatriate community, and the public administration which receives considerable budgetary support from France. Performance of the agricultural sector has improved markedly since 1977 but it remains the smallest sector of the economy. Industry's performance over the post-independence period has been short of expectations, indeed since 1982 the sector has seen little or no real growth despite requests for external funding to support an ambitious development programme and the generous incentives offered to the private sector.

The expatriate community, estimated as 10,000 persons in 1987, consisting of French servicemen, thought to number 3,500, aid workers and technical assistants constitutes an important segment of the service sector. In 1983, the contribution of the expatriate community to GDP was estimated as 43 per cent.^{1/} Since independence, however, the number of French troops has been cut by half. Their purchasing power, and that of French co-operants, has also been cut back by reduction in the overseas allowances given by the French government. This has particularly affected shops, restaurants and bars which depend heavily on expatriate customers. Between 1978 and 1984 the contribution of trade, hotels, restaurants and bars to GDP fell from 36.8 per cent to 15.6 per cent.

^{1/} Maurice, P., "Djibouti. Chronique Economique et Demographique", Annuaire des Pays de l'Océan Indien, Volume 9, 1982/83.

Table 1.1: Distribution of GDP by sector of origin, 1977-1984
(Percentage share at market prices)

	1977	1978	1979	1980	1981	1982	1983	1984
Primary sector	3.6	7.4	5.8	5.3	3.7	4.3	4.3	4.4
Agriculture, livestock and fishing	3.6	7.4	5.8	5.3	3.7	4.3	4.3	4.4
Secondary sector	17.0	14.7	14.4	14.8	17.3	18.1	19.0	18.8
Manufacturing	6.3	8.2	7.4	7.4	8.3	8.1	8.2	8.2
Electricity and water	3.2	3.3	2.9	2.6	2.0	2.5	3.2	3.2
Construction and public works	7.5	3.2	4.1	4.8	7.0	7.5	7.6	7.4
Tertiary sector	79.3	77.8	79.6	79.8	79.0	77.6	76.7	76.8
Trade, hotels, bars and restaurants	36.8	23.9	23.45	23.0	18.6	16.6	15.7	15.6
Banking, insurance, real estate and business services	5.2	6.7	6.2	7.1	3.7	4.7	4.8	4.9
Transport and communications	8.3	8.6	7.9	8.0	10.0	9.7	9.8	10.0
Government	15.0	23.1	24.3	22.8	27.9	27.1	27.0	26.9
Other services	2.3	0.9	1.5	1.4	1.5	1.5	1.5	1.6
Import duties and taxes	11.7	14.6	16.3	17.5	17.3	18.3	17.9	17.8
Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Sources: Annuaire Statistique, 1986, p. 128; and World Bank, Economic Situation and Prospects of Djibouti, 1984, p. 70.

The informal sector, whose contribution is ignored in national income statistics, has a slightly different structure. About 65,000 nomads - 15 per cent of the population - follow subsistence mode of production, living off their herds and having little contact with the modern economy. In urban areas on the other hand, between 75 and 80 per cent of the work force are employed in informal sector activities, excluding those working in registered enterprises but not formally employed. Most of these activities can be classified as services - retail selling from shops or by temporary salesmen, restaurants and repair services. According to a International Labour Organization survey of 1982^{1/} which excluded retail salesmen and the transport sector and so underestimates the scale of the informal sector, the average value added of the 427 informal sector enterprises numerated was DF474,000 per month, an annual total of DF2,429 million or almost 4 per cent of the officially recorded GDP.

1/ ILO, Op. cit.

In the years before independence the railway line to Addis Ababa and the re-export of products destined for Ethiopia were an important source of income for Djibouti. Following the outbreak of the Ogaden war in 1977, the line was cut for two years. Traffic has never fully recovered (Table 1.2). During the drought of 1984 to 1986 traffic reached three quarters of the pre-independence level as Djibouti provided a channel for food aid entering Ethiopia. In normal circumstances, however, Ethiopia prefers to use the port of Assab, despite port charges 30 per cent higher than at Djibouti and considerably longer delays. At present only 7 per cent of Ethiopia's exports and 20 per cent of the total trade pass through the port and the Ethiopian government has consistently refused to commit itself to increasing the trade along this route. The signing of an agreement with COMECON to finance an Addis Ababa-Assab rail link, while dismissed by the Chemin de Fer Djibouto-Ethiopien on the grounds of cost - estimated at \$1,372 million against \$250 million for rehabilitation of the existing line - may signal a further long-term decline in the volume of the trade.

Table 1.2: Traffic on the Djibouti-Ethiopia railway, 1974/75-1987
('000 tonnes)

	1974/75	1980/81	1982/83	1984	1986	1987
Djibouti to Ethiopia	195	76	91	110	199	135
Ethiopia to Djibouti	158	64	71	94	86	100
Internal traffic	100	123	55	65	66	47
Total	453	263	217	269	351	292

Source: Chemin de Fer Djibouto-Ethiopien.

Note: Statistics for the period 1975-1979 are not available.

The decline in the transit trade to Ethiopia has affected the port, so too have the developments in modern shipping and the closure of the Suez Canal in the mid-1970s and subsequent development of the Cape route. Djibouti faces competition from other regional ports - notably Aden and Hoddeidh - in terms of port facilities and charges. As a result the number of ships calling at the port has fallen 28 per cent since independence. While the volume of merchandise disembarked at Djibouti has increased by 72.5 per cent over the same period, much of this increase is accounted for by the growth in imports to Djibouti, from 120,000 tonnes in 1977 to 225,000 tonnes in 1986. Exports and registered trans-shipments combined have grown by only 32 per cent over the same period.

The growth of container traffic since the opening of the container terminal in 1985 offers some consolation (Table 1.3). Djibouti lies at an international maritime crossroad and, with the development of further container facilities and careful management, this particular transshipment service could compensate for the loss of revenues accruing from bunkering and other facilities. The port has also benefitted from increased military activity during the 1980s but, with the end of the Gulf War, this windfall may come to an end.

Table 1.3: Development of the Port of Djibouti, commercial shipping, 1976-1987

	1976	1978	1980	1982	1985	1986	1987
Ship entries		1,166	998	920	794	830	844
Merchandise ('000 tonnes)							
Disembarked	386 ^{a/}	270	281	299	471	466	408
Embarked	254 ^{a/}	124	114	97	139	155	176
Transhipped		55	25	37	48	84	60
Fuel ('000 tonnes)		764	861	853	458	373	456
Water ('000 cu m)		147	131	132	84	87	114
Container movements							

Source: Port Autonome International, Statistiques Portuaires and DINAS, Annuaire Statistique, various issues.

a/ Includes transhipments.

Up-to-date government statistics on the structure of aid payments are not available. OECD statistics, however, indicate that about 80 per cent, \$371.7 million, of the \$464.2 million aid disbursed in the period 1980 to 1985 has been given by bilateral donors. France and the Arab OPEC States have been prominent among these donors. About two-thirds, \$316.8 million, of this aid has been given as grants. In view of Djibouti's financial problems this proportion needs to be maintained.

Since 1982, the state of public finance has deteriorated steadily. Current account receipts have stagnated, partly because of the decline in port and railway activity but also because the government has had difficulty recovering taxes. By the end of 1986 the value of unrecovered taxes was estimated as DF3 billion. At the same time expenditure has increased, despite government efforts to hold it back. The armed forces and the administration account for the largest part of this increase and now account for about 75 per cent of government expenditure. The salaries of civil servants alone represent 60 per cent of the budget despite the fact that civil service salaries have been frozen for several years. Debt servicing is also a growing burden on the budget rising from DF678 million in 1986 to DF1.3 billion in 1988.

Despite the increasing burden of taxation on the economy and stringent austerity measures it is unlikely to achieve equilibrium in the near future. Reduced budgetary support also weakened the balance of payments, wearing down foreign exchange reserves. Nor has the government been able to stimulate private sector investment, from home or abroad, by means of the generous tax concessions offered to investors through the Investment Code promulgated in 1984. As a result private capital has been directed towards the service sector, and commerce in particular, where relatively quick returns at a high rate are assured, while industry has seen little investment.

A significant restructuring of the economy is deemed vital for parrying the sectoral imbalance in the development process, i.e., having a large service sector at low level of development. In the sphere of economic diversification industrialization stands as a realistic option open to the government.

1.3 An overview of the manufacturing sector

The legacy of Djibouti's manufacturing sector is characterized by pseudo development of industrial enterprises which failed to create the base for fostering industrialization. A cigarette factory and a plaster making plant established in the late nineteenth century, for instance, had been closed down by mid-1930s. An enterprise exploiting the country's mineral wealth, the Compagnie des Salines du Mide et de Djibouti, ceased to exist in 1957. During the pre-independence era less than 10 per cent of the country's population were literate and fewer still were capable of installing and maintaining machinery, keeping accounts or carrying through the detailed feasibility studies needed to identify promising product areas.

At independence in 1977 Djibouti's manufacturing sector encompassed an ice factory, a soft drinks bottling plant, a gas bottling plant, a bitumen factory, several bakeries and pre-fabricated joinery workshops and, in the informal sector a few artisans producing tourist curios, simple clothing, jewellery and traditional sandals. Djibouti's achievements in the eleven years since independence are formidable. Nevertheless, Djibouti lags far behind its neighbours, indeed most of Africa, in the field of industrial development.

The contribution of manufacturing to GDP was only 6.3 per cent in 1977. This increased to 8.3 per cent by 1981 but has since remained relatively constant. The manufacturing sector's contribution to employment is also limited. Of 15,302 employees registered with the CPS in 1988, only 808 were employed in manufacturing industries and the artisanal sector. The number of employees rose from 699 in 1978 to 1,189 in 1980 but subsequently fell to 769 in 1987 and has since remained relatively constant.

The concentration of investment in large industrial enterprises, rather than the small business sector, has been one factor in maintaining a low level of employment in the manufacturing sector. There are three public enterprises which all are capital intensive, using modern labour saving technology. The capital expenditure per full-time employee at the milk factory is DF23 million, DF20 million at the animal feed factory and DF3.5 million at the water bottling plant. This is equally true of recent investments in the private sector. The capital investment per full-time employee works out at DF13.2 million at SOPINAD and DF14.3 million at SIAD, the ice cream factory currently under construction. At the soft drinks bottling plant labour saving machinery is used extensively.

The vast majority of enterprises enumerated by the Caisse de Prestations Sociales (CPS) are small businesses employing less than ten persons. Using the more detailed breakdown of enterprises provided by the quarterly CPS payment Register^{1/} for 1988, only ten private sector manufacturing enterprises employing more than ten persons can be identified. Six of these

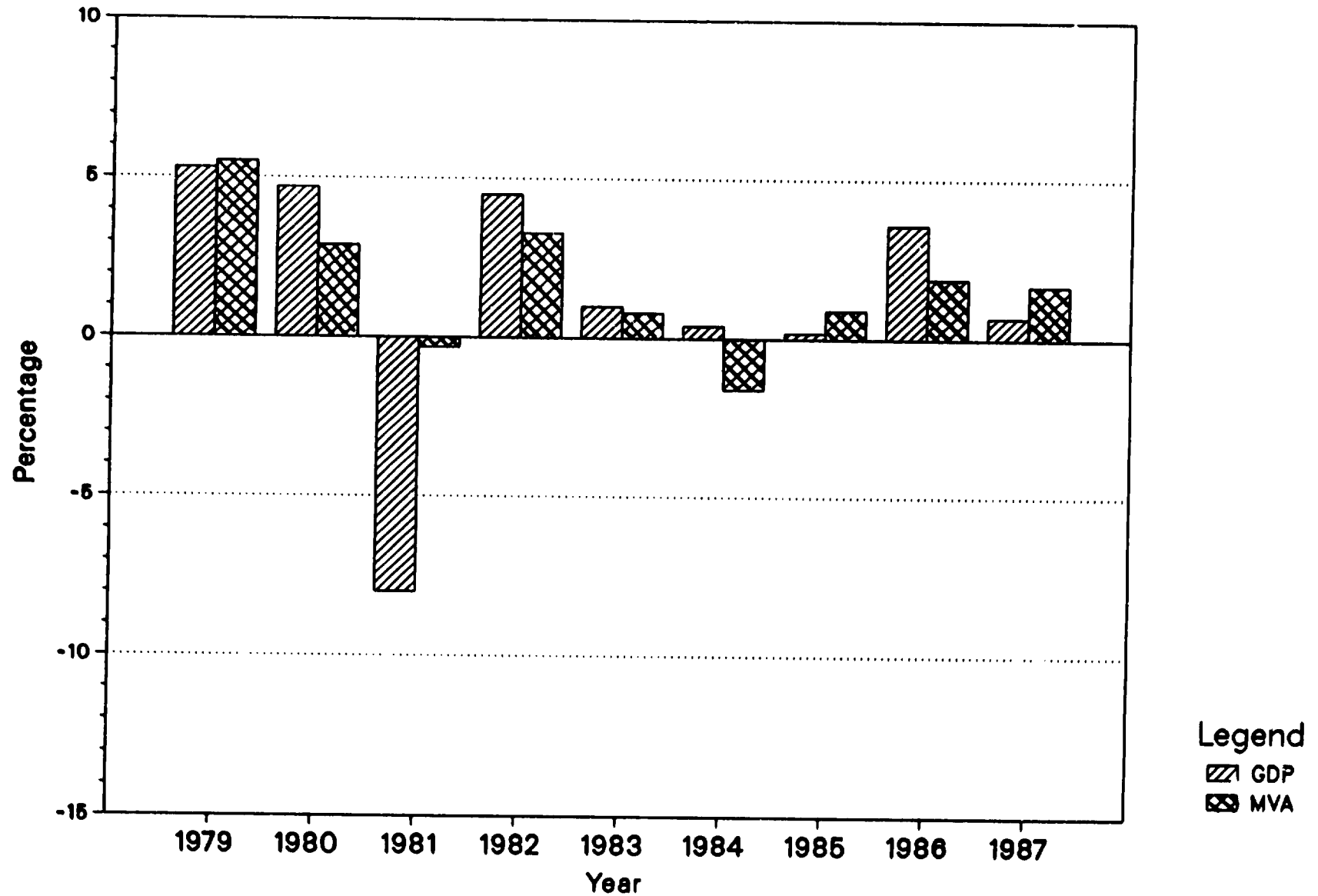
1/ Caisse de Prestations Sociales, Quarterly Register of Employees and Salaries, August 1988.

were set-up after independence. The same Register lists only three private sector companies employing more than thirty persons. Two of these were set up before independence: the Glacières Coubeche established in the 1890s, its affiliate the Coca-Cola Bottling Factory established in 1964. The other, SOPINAD established by SOGIK - a private company holding a monopoly on the import of khat - in 1983 with a capital of DF750 million provided by the parent company, accounts for a least one third of the private investment in the industrial sector since 1977. A fourth large-scale enterprise, the ice cream factory, SIAD, which is another affiliate of Glacières Coubeches, is presently under construction. The anticipated capital investment is DF458.5 million.

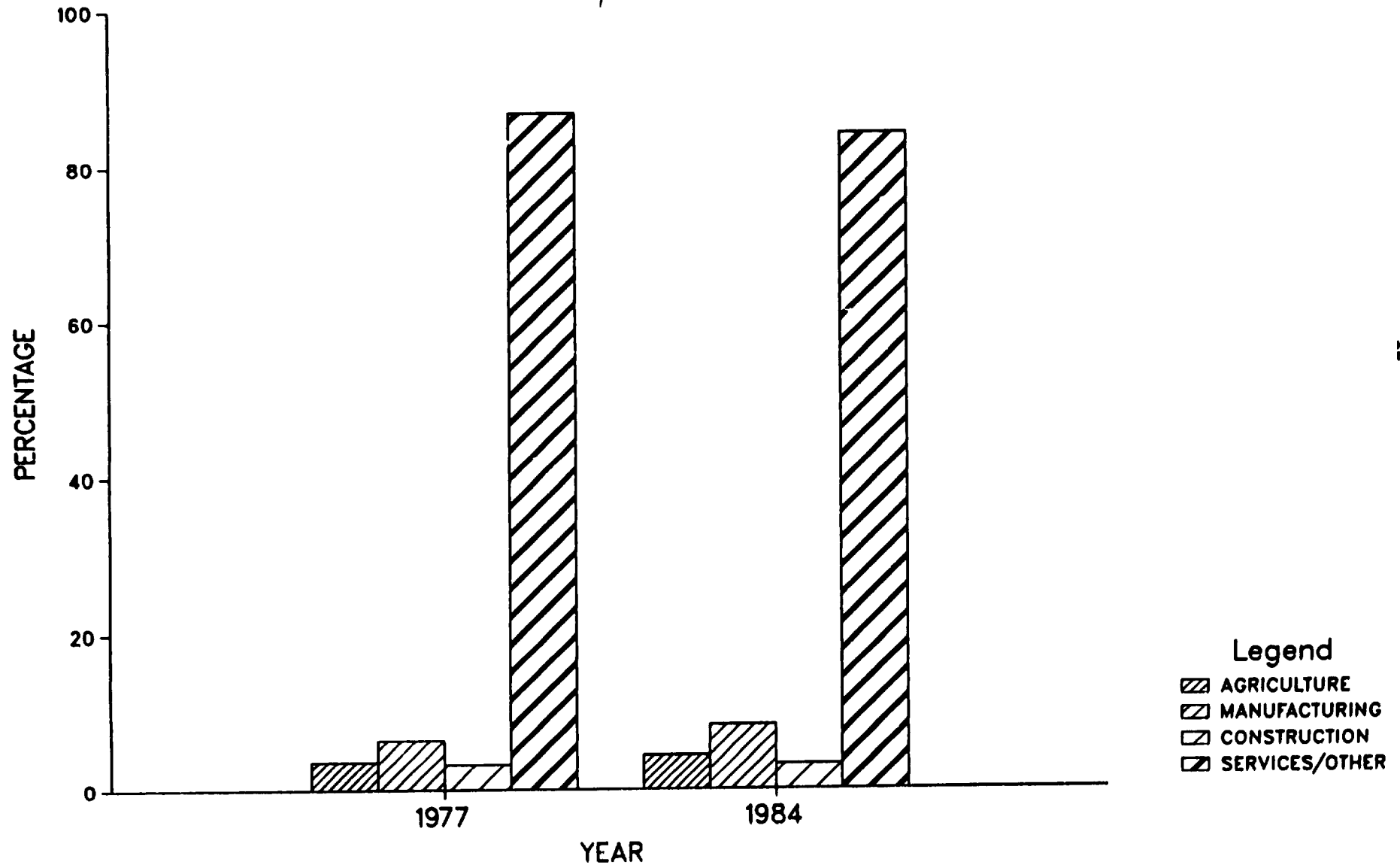
There are few linkages within the manufacturing sector or between industry and other sectors of the economy. All the existing manufacturing enterprises depend on imported materials, semi-finished goods and, with the exception of the water bottling plant and the brick factory, raw materials. No capital goods are produced and most of the enterprises are orientated towards the consumer market. The government has, however, sought to promote linkages by establishing an animal feed factory, whose products augment pastoral production, and encouraging the establishment of a flour mill to furnish the growing number of bakeries. There are other linkages between the brick factory, joinery workshops and gas bottling plant and the construction sector.

Djibouti's manufactured exports are negligible. The public sector companies are all oriented towards the domestic market and import substitution. The only recorded exports from the private sector are: milled bran to India from the flour mill (currently estimated at 250 tonnes per month), occasional sales of carbon dioxide to Ethiopia and Somalia from the Coca-Cola plant, sales of bottled gas to Somalia in 1986 by Air Liquide and the sale of one order of aluminium joinery products to Madagascar by Najval Aluminium. Fundamental constraints coupled with low levels of investment in both the private and public sectors impede industrial "take off".

GROWTH RATES OF GDP AND MVA, 1979-1987

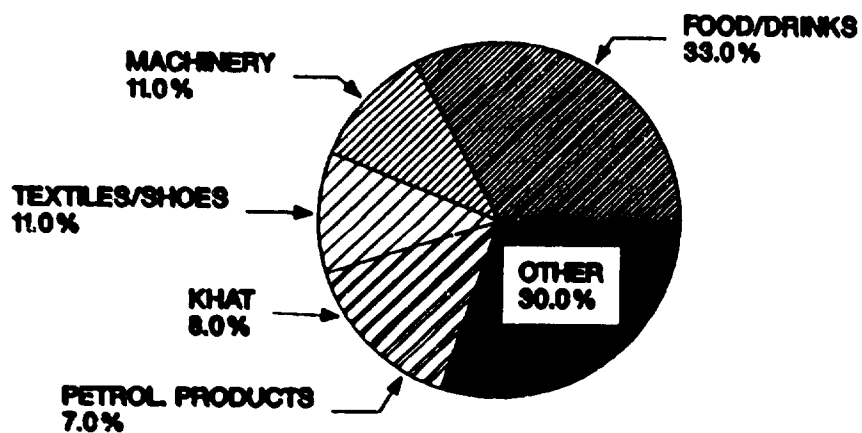


DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1977 AND 1984

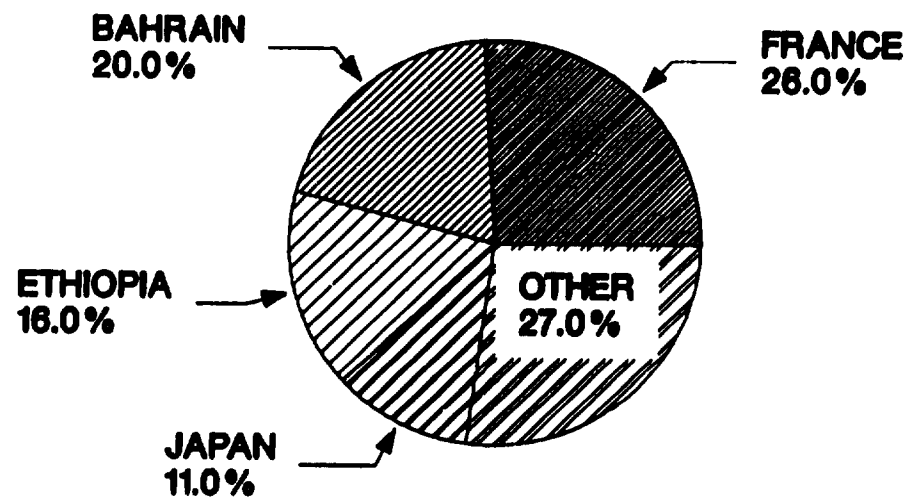


COMPOSITION AND ORIGIN OF IMPORTS, 1986

COMPOSITION OF IMPORTS



ORIGIN OF IMPORTS



2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

2.1 Growth and structural change^{1/}

The manufacturing sector in Djibouti seems to have benefitted from the spurt in economic activity in the face of a sympathetic rush on the part of the donors to help the new State during the years following independence. After two consecutive years of sluggish growth during 1977-1978, MVA (measured in constant 1980 prices) recorded a 5.5 per cent increase in 1979. This momentum could not be maintained in the following years as growth of MVA faltered to 2.9 per cent in 1980, and plunged to a negative growth rate of 0.3 per cent in 1981. When the economic boom immediately following independence ended in 1982 Djibouti's manufacturing sector recorded 3.3 per cent increase in MVA. However, the pace of industrial expansion came to an abrupt halt thereafter, with a sombre industrial environment characterized by stagnating and declining growth rates. MVA grew by 0.8 per cent in 1983 and fell by 1.6 per cent in 1984. MVA growth estimates of 0.9 per cent, 1.9 per cent and 1.7 per cent for 1985, 1986 and 1987, respectively, reveal consecutive years of industrial stagnation in Djibouti resulting from a pause in industrial investment.

Public sector investment in the industrial sector is almost entirely funded by grants and loans from donor nations and organizations. The government's contribution has, in the past, been limited to the provision and clearance costs of State-owned land. There are two wholly State-owned enterprises and a mixed industrial unit with little participation by the private sector in equity capital. In the private sector 10 industrial units are engaged in manufacturing articles with size of employment exceeding 10 persons.

Up to 1982 only three projects had received external funding. The water bottling plant and an Arabic printing press received DF159 million and DF176 million, respectively, as part of a \$60 million gift from Saudi Arabia arranged in 1978. Two years later the Kuwait Arab Economic Development Fund agreed on a loan of Kuwaiti Dinars (KD) 1.5 million covering 80 per cent of the investment costs of the proposed milk factory. A further KD300,000 loan was arranged for the milk factory's working capital in 1984. Both loans are at a nominal interest rate of one per cent and are repayable over twenty years with a five-year grace period.

In November 1983 a list of eleven industrial development projects was presented to the Donors' Conference. The total cost of these projects was estimated at DF11,620 million, only DF779 million (7 per cent) of which was to be contributed by the government. One of these projects, the milk factory, had already been assured of funding.

The response to the Donors' Conference was disappointing. A cement factory project received promises of funding from the Iraqi and Austrian governments but the project was eventually abandoned after an unfavourable market survey. Excluding the milk factory, only two projects on the list have been carried through. The animal feed factory received a loan of DF600 million from the Arab Social and Economic Development Fund as part of a KD1.9 million package which included the finance for a new abattoir. The loan

1/ An analytical exposition of structural change in manufacturing is constrained by paucity of data on value added and gross output for the sub-sectors of manufacturing.

is repayable by the year 2000 at an interest rate of 4 per cent per year. Denmark has provided technical assistance. The second project, a paper transformation plant, was financed by private capital and a loan from the Local Development Fund (CDD). Technical assistance for a market survey and the establishment of the plant was provided by the French Fond de Aide et Coopération.

Unable to attract private investment, the State has assumed a leading role in the promotion of industry through the formation of public sector and mixed enterprises. The first of these, the Société d'Exploitation des Eaux de Tadjourah, a water bottling plant, was created as a mixed company in 1978 and began operations in 1981. The milk and animal feed factories, both completely State-owned, followed in 1984 and 1988, respectively.

A concerted effort is needed to increase the level of public investment. This could be achieved by attracting support from a wider range of donors. At the same time the private sector's contribution to the development programme would need to be increased, both by encouraging private domestic fixed capital formation and by directing this investment to the productive sectors. Ultimately, however, industry will only attract funds if profitable investment opportunities are available. The poor performance of existing private and public sector enterprises does little to attract investors away from lucrative commercial activities.

2.2 Performance and efficiency^{1/}

A study of thirteen selected enterprises - two State, one mixed (para-statal) and ten private sector companies - revealed that eleven of them are currently working below capacity. Three causes of low capacity utilization rates may be identified: installed over-capacity, poor maintenance and interruptions in the supply of raw materials and spare parts. Four out of the thirteen enterprises are working below capacity because sales potential of the domestic market is smaller than the output of the minimum viable plant. These companies ruled out exporting their surplus capacity on the grounds of their uncompetitive prices on the world market, poor quality products and the protection afforded to competitors in neighbouring countries. In seven cases the poor choice of machinery, inadequate

1/ A regularly updated census of industrial enterprises providing details of products, employment, costs and turnover is an essential planning tool and the starting point for an analysis of industrial performance. Unfortunately, no such census exists for Djibouti. A survey of small enterprises in Djibouti City was carried out by DINAS in 1986. This listed 177 enterprises, 75 of which were involved in manufacturing. The list is, however, incomplete, partly because it ignores medium- and large-scale industrial enterprises, but, more important, because it ignores enterprises in the informal sector. Furthermore, the list has not been updated. No complete list of medium- and large-scale industries has been compiled. In early 1988 the Arab Industrial Development Organization (AIDO) requested that the Ministry of Industry prepare a register of manufacturing companies for an Industrial Guide to Arab Countries. Questionnaires were sent out to prominent manufacturing companies but only eight were returned. This represents only a fraction of the existing industrial enterprises. Moreover, there are no published statistics on sub-sectoral manufacturing output or value added. Consequently, only a general overview of industrial performance can be given.

maintenance and the difficulty of acquiring spare parts has led to frequent and often prolonged breakdowns. Two companies also complained that delayed shipments of raw materials and packaging materials had forced the plant to close down temporarily.

Details of the financial performance of private sector companies are not available. However, eight out of the ten private sector companies studied had recorded profits in 1987. Only SOPINAD and DJED had suffered losses. In the case of SOPINAD this situation has now been rectified by the imposition of a surtax on cheap - possibly "dumped" - imported flour to protect its sales. DJED, on the other hand, has been unable to achieve full production because of technical problems, sales have plummeted and losses have built up over three years. The company now faces bankruptcy.

The failure rate of private sector companies is not known. According to CPS statistics, however, of the 99 registered enterprises 23 manufacturing enterprises have ceased production. This indicates that 23 per cent of manufacturing companies operating during the eleven years since independence have closed down. The list of trading licences records two closures in 1987 whilst seven manufacturing enterprises were established in the same year.

Some idea about the failure rate of industrial enterprises in recent years could be gauged from Table 2.1. A quick glance at the Table reveals that the number of enterprises that were closed down in the secondary sector during 1986 and 1987 outnumbered the number of enterprises that were established. The failure rate has been the highest in public work activities. In the manufacturing sector one food industry and one wood working unit ceased to exist in 1987, against the establishment of one industrial unit in each of these sub-sectors of manufacturing.

Table 2.1: Creations and closures of industrial enterprises, 1986 and 1987

	1986		1987	
	Creations	Closures	Creations	Closures
Food and beverages	2	-	1	1
Clothing and leather	-	-	-	-
Wood working	-	-	1	1
Construction materials and chemicals	-	-	-	-
Other industries	2	-	5	-
Public works	13	18	6	14
Secondary sector	17	18	13	16

Source: Service des Contributions Directs, Registry, 1986 and 1987.

In the public sector both the water bottling plant and the milk factory have faced financial difficulties. The milk factory has suffered losses in three consecutive years largely because of technical difficulties, poor management and high costs. The factory is in need of substantial rehabilitation only three years after opening and continued protection from

imports. The water bottling plant achieved profits during the first two years of operations but, following breakdowns in 1985 and 1986, sales dropped and the company recorded a loss. Production and sales recovered in 1987 and the company made a small profit. It is too early to assess the financial performance of the animal feed factory since production only began in June 1988.

2.3 Manufactured exports and imports

The manufacturing sector's contribution to exports is meagre to the extent of being negligible. Djibouti has long served as an entrepot for Ethiopia and Northern Somalia. In 1987, manufactured and processed goods accounted for 64 per cent of the 85,953 tonnes of merchandise re-exported to Ethiopia and 95 per cent of the 46,287 tonnes of merchandise re-exported to Somalia. Although no statistics on the value of re-exports are available, they are, undoubtedly, considerably greater than the DF90.5 million of Djibouti's exports to Ethiopia and DF237 million to Somalia in 1986. Clearly, there is considerable potential for the substitution of products manufactured and processed in Djibouti for this re-export trade. The potential is even greater if one considers that re-exports from Djibouti account for less than 7 per cent of Ethiopia's total trade.

Table 2.2: Re-exports to Ethiopia and Somalia, 1987

Commodity	Ethiopia (tonnes)	Somalia (tonnes)
Agricultural products	30,389	2,530
Food industries, drinks	12,640	39,156
Petroleum products	2,932	1
Minerals and raw materials	437	10
Wood, leather, textiles	1,161	1,039
Metal and metal products	21,201	86
Electronic and optics	1,977	2,115
Vehicles	1,061	152
Chemical products	12,848	1,065
Divers products	1,307	133
Total	85,953	46,287

Source: Port Autonome de Djibouti and DINAS, Annuaire Statistique, 1987, (unpublished sheet).

Djibouti's strategic position in the Red Sea and close cultural and political ties with the Arab States suggest another potential export market. Although published government trade statistics give no details on market destinations, IMF data (see Annex Table A-3.), indicate that Arab States are important destinations for Djibouti's exports. Most of the exports, actually re-exports (DF947 million, 26 per cent of total exports in 1986) are destined for Arab States, Yemen Arab Republic and Saudi Arabia in particular. These countries have small industrial sectors outside the oil processing sub-sector

and depend heavily on manufactured imports. The development of an export market in these countries for manufactured goods could be greatly facilitated by special trade arrangements. Entrepreneurs from these States have already shown interest in promoting manufacturing enterprises in Djibouti, aimed at both the local market and export to neighbouring States. These initiatives could be encouraged.

Djibouti is also a member State, with Least Developed State status, under Lomé III. The terms of this convention, which runs until February 1990, provide for free import of industrial goods into the European Community (EC). Trade with Europe - France and Italy in particular - is already well established. According to government statistics the EC countries accounted for 49.3 per cent of imports in 1985. The value of exports to the EC, on the other hand, is negligible. Djibouti could increase this share by following the path of other ACP countries in the development of export processing industries. These are not necessarily based on local raw materials. The finishing of textiles, assembly and light industries, based on imported semi-finished goods have been particularly successful in the Caribbean and, in the African context, Mauritius. Under the present convention, however, not all processed goods qualify for exemption from quotas and tariffs. Rules of origin are applied strictly and exclude a large range of products based on imported semi-finished products. The negotiations for a new convention for the 1990s, currently under way, focus on reducing the stringency of the rules of origin test. If these are relaxed, Djibouti's position on the trade route from the Far Eastern newly industrializing countries, which are excluded from the convention, will be a particular advantage for the development of export-orientated processing and assembly industries. However, most of these industries are labour intensive and Djibouti is particularly disadvantaged in this respect because of the unfavourable cost structure which could undermine the price competitiveness of products.

Djibouti's import profile as presented in Table 2.3 shows that food and drinks accounted for around one-third of total imports in 1986. Other manufacturing accounted for 11.3 per cent of the country's total imports in 1986, followed by textiles and shoes (10.8 per cent), khat (8.3 per cent), petroleum products (7.3 per cent), metal and products (5.9 per cent), chemicals (5.8 per cent), vehicles (5.8 per cent), tobacco (4.2 per cent), etc.

Virtually all raw materials, semi-finished and capital goods used in existing industries are imported. When import taxes, commissions, freight charges and the opportunity cost of maintaining large stocks are taken into account the production costs in Djibouti are inevitably higher than in countries with a strong resource and industrial base. Freight costs, moreover, tend to be higher for the smaller enterprises using bulk commodities, such as the animal feed factory, since they have to spread the port costs of bulk carriers over a small quantity of raw materials. Containerization offers some prospect of reducing these charges but suppliers of bulk commodities are still unaccustomed to this method of transport. Dependence on imported materials also introduces a managerial problem of maintaining adequate stocks. Development of linkages within the local industrial sector and the valorization of local resources will reduce dependence on imported materials but raw material costs are still likely to remain a heavy burden for the industrial sector in the long term.

Table 2.3: Value of imports, 1980-1986 (selected years)
(DF million)

	1980	1982	1983	1984	1985	1986 ^{a/}
Food and drinks	10,501	8,224	7,448	7,666	9,021	9,337
Tobacco	1,732	1,434	1,694	1,546	1,531	1,354
Khat	2,014	3,201	3,550	3,341	3,155	2,657
Minerals	326	281	362	501	286	274
Petroleum products	2,661	3,864	3,708	3,423	3,507	2,336
Chemicals	1,517	2,327	2,030	1,822	1,863	1,861
Plastics	313	447	320	321	419	552
Paper and products	585	796	633	704	736	851
Textiles and shoes	3,370	6,101	4,713	4,121	3,283	3,450
Stone, cement and ceramic products	435	508	476	478	351	507
Wood and products	594	645	511	418	531	409
Metal and products	1,482	1,400	1,561	1,218	1,401	1,970
Furniture	411	559	653	628	475	504
Divers machinery	3,946	3,631	4,301	6,206	4,673	3,609
Vehicles	2,871	4,463	4,749	4,532	2,846	1,863
Divers	632	500	674	619	306	395
Total	33,390	38,381	37,423	37,544	34,385	31,931
Total including special transactions	37,890	40,197	39,307	39,425	35,670	33,106

Source: DINAS, Annuaire Statistique, 1987, (unpublished sheet).

a/ Preliminary estimates.

Dollar parity has proved a mixed blessing for the industrial sector. The free convertibility of the Djibouti franc removes an obstacle for companies importing raw materials and capital goods and encourages foreign investors by allowing the free transfer of profits. The recent fall in the value of the dollar relative to EC currencies has, however, increased the cost of imported products, few of which come from the dollar zone. On the other hand, the prices of imported finished goods have increased, thereby affording local manufactures some protection.

2.4 Size, ownership and investment patterns

In terms of investment the wholly State-owned Milk Factory (Laiterie de Djibouti) and Animal Feed Factory (SAB) are relatively large in size. The State has greater participation in equity capital in the Water Bottling Plant (SEET) (Table 2.4). All the three enterprises are highly capital intensive. The capital expenditure per full-time employee at the Milk Factory is DF23 million, compared to DF20 million at the Animal Feed Factory. In marked contrast it falls to DF3.5 million in the Water Bottling Plant. The largest

private sector investments are similarly capital intensive; Société Portuaire Industrielle Alimentaire de Djibouti (SOPINAD) engaged in milling wheat and bran has an investment employment ratio of DF13.2 million per employee, while that of SIAD, designed for the production of ice cream, is DF14.3 million per employee.

Table 2.4: State participation in industrial enterprises, as of 1988
(DF million)

	State	Public enterprise	Private sector	Total
Water bottling plant (SEET)	135	50	10	195
Milk factory (Laiterie de Djibouti)	1,248	-	-	1,248
Animal feed factory (SAB)	600	-	-	600
Total	1,983	50	10	2,043

Source: Accounts of the public sector enterprises and interviews with management.

The small businesses are far the most cost effective in generating employment, averaging a capital investment per employee of about DF1.5 million. The cost is even lower in the artisanal sector. The average start-up investment per enterprise in the "informal" manufacturing sector is only DF377,000 (1981 market prices) and the investment per employee only DF60,000.

The sub-sectoral distribution of manufacturing enterprises given in Table 2.5 is based on the Register of the Caisse de Prestations Sociales. The list is incomplete. It includes few artisanal enterprises and virtually none of those in the "informal sector". Of the 76 enterprises in operation in 1988, 29 enterprises were bakeries, 19 were engaged in wood and metal products and 15 in jewellery making.

Table 2.6 presents information on the average number of employees in small-scale manufacturing units located in Djibouti City. Among the small-scale manufacturing activities other manufacturing stands as a relatively big source of employment. However, average number of employees per enterprise was less than 4 in 1986.

Despite liberal profit repatriation laws and the generous tax relief offered under the Investment Code, Djibouti has failed to attract significant foreign investment to the industrial sector. Since independence only two manufacturing enterprises with majority equity holdings by foreign nationals have been set up with an estimated total investment of DF80 million (\$0.5 million).

Table 2.5: Registered enterprises and employees by sub-sector of manufacturing, 1988

ISIC	Sub-sector	Enterprises		Number employed
		Registered	Operational	
3112	Dairy products	2	2	62
3116	Grain mill products	1	1	58
3117	Bakeries	33	29	164
3134	Soft drinks and water	2	2	401
3220	Wearing apparel	3	2	4
33 & 38	Wood and metal products	27	19	40
3420	Paper and printing	2	1	39
3511	Basic chemicals	2	2	26
3523	Soap and detergents	1	1	4
3560	Plastic products	3	0	0
3691	Clay bricks	1	1	2
3699	Non-metallic minerals	1	0	0
3901	Jewellery	19	15	4
3909	Artisans	2	1	4
Total		99	76	808

Source: Based on CPS data, June 1988.

Table 2.6: Small-scale manufacturing enterprises in Djibouti, 1986

Sub-sector	Number of enterprises	Number of employees	Average number of employees
<u>Food industries</u>	<u>17</u>	<u>60</u>	<u>3.5</u>
Bakeries	10	49	4.9
Grain mills	4	4	1.0
Patisseries and ice cream	3	7	2.3
<u>Other manufacturing</u>	<u>58</u>	<u>133</u>	<u>3.2</u>
Shoes	1	2	2.0
Printing	4	17	4.3
Furniture (Joinery)	6	20	3.3
Jewellers	10	35	3.5
Spare parts	4	7	1.8
Tailors	33	52	1.6
<u>Total</u>	<u>75</u>	<u>193</u>	<u>3.4</u>

Source: DINAS, Carte Commerciale de Djibouti Ville, 1986.

Nor have Djibouti nationals been attracted by the investment opportunities in the manufacturing sector. The level of private sector fixed capital formation is low, less than 2 per cent of GDP in 1982, and most of this was directed towards the housing and the transport sectors. Statistics on the creation of new enterprises confirm that most of the commercial investments are in the tertiary sector. In the last quarter of 1987 the Caisse de Prestations Sociales registered 71 industrial and artisanal enterprises, 69 of which were privately owned, 1 State-owned and another mixed capital.

2.5 Problems and prospects of manufacturing sub-sectors

Food and beverages

The development of Djibouti's food and beverages industry has been based on the processing of imported raw materials and the manufacture of products from imported concentrates rather than domestic agricultural production. Despite this handicap it is the strongest and most developed industry branch accounting for 85 per cent of employment in the industrial sector at the end of 1987.

The sub-sector is dominated by a single industrial enterprise, the Glacières Coubeche, a privately owned ice factory founded in the 1890s, and its affiliate the soft drinks bottling plant. The soft drinks factory, producing Coca-Cola, Fanta and Sprite under licence, is highly mechanized and depends entirely on imported concentrates, bottles and machinery. Despite the size of the local market for carbonated bottled drinks no competitors producing under a local or international brand name have emerged. Laiterie de Djibouti has produced a line of soft fruit drinks packed in cartons since 1984 but these have had difficulty in penetrating a market dominated by imports of fruit drinks. Without a direct competitor producing locally, the Coca-Cola factory holds a strong market position and is, reputedly, highly profitable.

The Société d'Exploitation des Eaux de Tadjourah, a water bottling plant, was established by the State in 1981 with a minority private interest. This was followed in 1984 by Laiterie de Djibouti, a public company producing reconstituted milk, yoghurts and fruit drinks. At present, the milk factory works well below capacity largely due to technical problems. After making a loss in 1986 due to repeated breakdowns of plant the water bottling plant has regained full production. Despite the benefit of protection from imports afforded by surtaxes neither company has been able to secure a predominant market share.

A survey of "informal sector" enterprises carried out by the International Labour Organization in 1982 identified six small grain milling enterprises. Only four were listed in the National Statistics Office (DINAS) survey of 1986, and none could be identified in the CPS Register or list of trading licences for 1987. The most likely reasons for the closure of these enterprises are competition from cheap flour imports and the opening of an industrial grain mill, SOPINAD in 1986. SOPINAD too has faced difficulties due to imports of cheap flour from the EC, compounded by a prolonged start-up period and irregular supplies of raw materials. These problems have now been overcome with the imposition of a surtax on imported flour and the company expects to make a profit in 1988.

By far the largest number of enterprises within the industrial sector are bakeries. They have proliferated in recent years - there were only seven in Djibouti City in 1983, now there are eighteen. As the numbers have increased production per bakery has fallen from 17,000 loaves per day to only 4,000 today. Fearing that the increased numbers and lower turnover of the bakeries would lead to a collective and corporate rise in prices rather than the competitive elimination of the least efficient, the Ministry of Finance has advised controls on the establishment of new bakeries and rigid control of the price of bread. Since 1987, the Investment Code Commission has stopped granting tax exemptions to bakeries in Djibouti City and has advised restrictions on the issue of trading licences.

The only processed or prepared foods manufactured locally are the pastries and cakes produced by bakeries and ice-cream produced at restaurants since 1979. An ice-cream factory, SIAD, an affiliate of Glacières Coubeches, is currently under construction. This will produce a brand of ice-cream currently imported by the promoter using imported concentrates and animal fats. A sophisticated and highly automated manufacturing process is to be used.

Further developments in the food and beverages sub-sector can be anticipated in the processing of basic foodstuffs, along the lines of the flour mill, and the local manufacture of products or brands that are currently imported, as in the case of SIAD. A vegetable oil processing plant has already been proposed. A feasibility study has also indicated that a pasta and biscuit factory could be profitable. There are, moreover, opportunities for the development of local food resources. The construction of a new abattoir could be complimented by a meat processing and packaging plant while the rapidly developing fisheries sector would soon require storage and processing facilities to achieve its full potential. Local agriculture is unlikely to provide sufficient quantities of fruit and vegetables to warrant the development of industrial processing facilities.

Tailoring and leather

Tailoring is well established as a small scale industry in Djibouti. While only three tailors were identified in the 1987 and 1988 trading licence Registers, and none were identified in the CPS Register, numerous others work in clothing and textile shops or in the informal sector. An ILO survey^{1/} of 1982 identified 83 tailoring enterprises in the "informal" sector employing 383 persons. The DINAS survey of 1986 lists 33 tailoring enterprises employing 52 people but ignores those in the informal sector. The volume of textile imports - 1,266 tonnes in 1985 - indicates the scale of production. Most of these tailors produce traditional clothing, using simple hand powered sewing machines. Their products are mainly sold to the lower-income group. Industrial production of European-style clothing has been less successful. Barkat Dirie tailoring enterprise in this market appears to have gone out of business. Local products, using expensive imported textiles, cannot rival the prices of imported clothing from the Far East. The value of imported clothing, DF990 million in 1985, would indicate that there is a potential market for local manufacture if sufficient product quality can be achieved. Local brand names will, however, face an uphill struggle against the popular fashion brands currently imported.

1/ ILO, Op.cit.

At present, hides are exported from Djibouti unprocessed and plans to build a tannery have foundered on administrative obstacles. With exports of skins totalling 466 tonnes in 1985 the project merits reappraisal, both for the added value it will create and for potential resource it would provide for a leather industry. Nomads produce traditional sandals and leather water-bags, some of which are sold as tourist curios, but otherwise there is no leather industry. The market for shoes, for instance, is largely met by imports, most of which are synthetic and textile products from China and Hong Kong, totalling 684 tonnes in 1985.

Wood and metal products

The wood and metal working industries are restricted to the production of prefabricated joinery. Of the 27 enterprises in this sector registered by the CPS in 1987, five produce aluminium doors, windows, partitions and screens. The raw materials are imported as semi-finished pressed aluminium frames and assembled to order. Only the lowest levels of training are necessary and so the sub-sector has done little to develop a work force trained in the skills of metal and wood working.

There is little room for further development in this sector. Imported finished products offer competitive prices for large construction projects - a contract for the aluminium joinery in a hotel recently completed, for instance, was awarded to an Italian firm. There is also over-capacity considering the size of the local market. In 1987-1988 three companies ceased production.

There are a few traditional wood and metal working craftsmen, the trading licence register lists two blacksmiths, but most of the skilled workers in this field are found in the service and transport sectors repairing imported products. A number of assembly plants - notably for refrigerators and air conditioning units - have been proposed by importers but entrepreneurs have subsequently backed out.

Printing and paper products

A private company, DJED, was established in 1984 to process imported paper rolls into paper sheet for printing and manufacture school exercise books. The company has had technical and managerial problems and now faces bankruptcy. At present, both markets are supplied almost entirely by imports.

There are two printing presses in Djibouti, a third having ceased operations. The government-owned Imprimerie Nationale meets most of the government's needs, while the Imprimerie Moderne furnishes the private sector. With only one weekly newspaper, published by the government, and no book publishers, the printing industry is restricted to short runs of customized stationary, forms and publicity material which cannot easily be supplied by importers.

Cardboard packaging materials are imported. The limited size of the manufacturing sector, and the ready availability of recycled packaging from imported goods, discourages the development of a local packaging industry.

Chemical products

There are three enterprises producing basic chemical products: Air Liquide (Djibouti), a subsidiary of the French company Air Liquide, produces oxygen, acetylene and ammonia by compression and chemical reaction; the Coca-Cola factory produces carbon dioxide which it sells to Ethiopian and Somalian companies; and Société "Xareed" produces distilled water for industrial use and domestic consumption. If plans to build a 5 million tonne annual capacity oil refinery go ahead - construction is due to start in 1989 - the chemical sector will receive a considerable boost. This may provide the impetus for development of salt reserves for use in a petrochemical industry whilst leading, downstream, to a range of plastics and plastic products manufactures.

So far, three attempts have been made to set up factories manufacturing goods out of plastics. The first, Triplast, was set up in 1981 to manufacture packaging materials from polythene and household goods from PVC pellets. Machinery and raw materials were imported but, due to a disagreement with the government over the concessions afforded by the Investment Code, the factory never began production. Fabrique Plastique suffered the same fate. SOFDIT, a company producing plastic sandals, was set up in 1982. After increasing capacity in 1984 the company was closed due to competition from cheaper imports from the Far East.

Despite the dependence on imported plastics and restricted economies of scale due to Djibouti's narrow market, industrial production of plastic products is not economically unrealistic. The water bottling plant, for instance, produces PVC bottles on site at prices competitive with imported products. A small-scale plant could meet local demand instead of imports, which, for plastic packaging materials alone came to 205 tonnes in 1985 at a cost of DF73 million, and for all imports of plastic and rubber products totalled DF419 million.

Plans to build an industrial soap factory, advanced by private promoters and the Ministry of Industry, did not materialize due to the size of the market and the problem of economies of scale in this capital-intensive industry. There is a small liquid detergent factory, DJIPACO, producing a range of household detergents from imported concentrates and marketing them under its own brand name.

Non-metallic mineral products

Despite the availability of suitable mineral resources - limestone, gypsum, perlite, pumice and clay - Djibouti is almost entirely dependent on imported construction materials. Plans to build a cement factory at Ali Sabieh, presented to the 1983 Donors' Conference, were abandoned after an unfavourable market study. The proposed brick factory met the same fate. Existing linkages into the construction industry are artisanal: a few workshops producing cement blocks and a brick factory.

Artisanal developments rather than large scale industrial plants are better suited to the limited size of the construction industry and the marked cycles that characterize the building sector. Private sector construction permits have fallen from 141 houses and commercial buildings in 1985 to only 50-60 buildings in 1988. It is hardly surprising, therefore, that 32 public works and construction companies ceased operations in 1986 and 1987 with a net

loss to the sector of 13 companies over this period. Nor is a large public sector construction programme anticipated which might justify the construction of an industrial cement or brick factory, other than a housing project for Djibouti City. The demands this is likely to place for construction materials can easily be accommodated by increases in the capacity of existing artisanal plants.

Other industries

Historically a nomadic society, Djibouti has a poorly developed artisanal tradition. There are skilled metal, leather and wicker workers producing a limited number of knives, leather water bags, sandals and mats, but these products are poorly marketed. Most of the curios sold to tourists are imports from Kenya, Ethiopia, and even the Far East. Within Djibouti, a great many of the craftsmen are immigrants, the jewellers are usually Senegalese and the wicker workers Ethiopian. Development of these traditional artisanal activities demands an improved marketing structure, the provision of credit facilities for the purchase of materials and the provision of training facilities for the young. The government is seeking finance of DF485 million for the construction of a new school for artisans and technical assistance for training in modern skills.

2.6 Constraints on and opportunities for industrial development

Wanting an industrial mentality

Few Djiboutians have the managerial or technical training and experience necessary for the development of industrial enterprises. Djibouti's economy depends heavily on the activities of the port, the transit trade with Ethiopia and internal commercial activities. There is no shortage of experienced entrepreneurs in these fields. The commercial mentality of Djiboutians inevitably discourages industrial entrepreneurship. Traders are reluctant to undertake long-term investments in manufacturing plants and overcome the problems of training and managing a work force while large commissions and mark-ups (up to 60 per cent) can be earned with few overheads by importing goods. Training can solve the problem of lack of industrial skills but, in the long term, the government must also foster a new industrial mentality.

Traders are beginning to grasp the potential of industrial developments. Several projects have been presented to the Investment Code Commission by traders who intend to assemble or process products that they currently import under licence from abroad. A notable example is the SIAD ice cream factory which will produce a brand of ice cream currently imported by the promoter. This has several advantages. The promoter has experience with the product and the local market. Links with the suppliers of technology and semi-finished goods are already well established. More important, the promoter may receive technical, managerial and financial support from the 'parent' company. These local initiatives should be encouraged in preference to attracting promoters from abroad since they alone can provide the experience necessary for sustained industrial development.

In recent years the government has done much to develop technical education but both the quantity and level of technical training are still inadequate. Little has been done to develop management skills through formal and informal education. For some time to come Djibouti will remain dependent

on expatriate technical assistance in both these fields. This places a heavy burden on private sector industrial enterprises since expatriate staff cost ten to twenty times as much to hire as their counterparts in the local labour market.

The essential institutions and incentives for the promotion of private sector investment in the industrial sector already exist. Unfortunately, the failure of institutions to pursue established procedures together with a degree of bureaucratic apathy have reduced their effectiveness. Ideally, promoters should receive government authorization and assistance for their projects through "one window". The government is currently considering proposals of administrative reform to streamline the procedures and institutions dealing with promoters in the industrial sector.

Overcoming a narrow domestic market

The limited size of Djibouti's internal market is frequently cited as a constraint on industrial development. While this is undoubtedly true, it should be pointed out that there is little information available to assess the market's size and characteristics. The 1983 census has not yet been published and the results of the detailed household budget survey of Djibouti City undertaken in 1987, giving details of income and consumption patterns, have still not been made public. Based on the available information, however, some idea of the extent of domestic market could be gauged.

With a total population of 456,000 in 1986 and a per capita income of only DF49,050 (\$276) in 1984, according to the government's corrected statistics, Djibouti's market is certainly small and impoverished. Purchasing power is, in effect, concentrated in the hands of a small proportion of the population.

Approximately 65,000 people live as pastoral nomads within an essentially subsistence mode of production. They have little disposable income. This is also true of the large mass of the urban population, without permanent formal employment, dependent on part-time and seasonal employment, informal sector activities and support from family members, their standard of living is low and their purchases are limited to the bare necessities. According to a household budget survey of 1982, 50 per cent of the household in Balbala, a town in Djibouti City, had monthly incomes of less than DF22,000. For the City as a whole, the median monthly household income was only DF86,000 (see Table 2.7).

Those with disposable income beyond the basic necessities are the 21,000 people in official employment, the business and expatriate communities. The average monthly salary of those in CPS registered employment in 1987 was DF57,317 (\$319), though salaries range from an average of DF166,669 in the insurance sub-sector to DF16,566 in the mixed transport sub-sector. Salary levels for civil servants are significantly higher, averaging DF168,000 (\$936). It is the expatriate community and the French Army, numbering less than 10,000 people, however, that forms the largest potential market for consumer goods. Although statistics on salaries are not available, the size of their contribution to GDP - estimated at DF23,102 million, or 43.4 per cent of the total in 1983 - suggests their potential purchasing power. The fact that they account for over 40 per cent of the water bottling and milk factory's sales, underlines their predominant position in the market.

Table 2.7: Monthly incomes in Djibouti City, 1982
(DF '000)

Cumulative frequency	City	Balbala	Whole City
0 - 10	57	3	19
11 - 20	57-79	3-9	19-32
21 - 30	79-96	9-13	32-46
31 - 40	96-118	13-17	46-63
41 - 50	118-141	17-22	63-86
51 - 60	141-166	22-27	86-112
61 - 70	166-194	27-35	112-137
71 - 80	194-234	35-49	137-206
81 - 90	234-309	49-69	206-297
91 - 100	309	69	297
Median income	141	22	86

Source: UNDP, Djibouti, *Politique de l'Habitat et Développement Urbain. Première Phase, 1988*, p. 13.

The problem of market size is compounded by the free trade policy issued by the government. The market for consumer goods is dominated by imports and consumers are accustomed to high quality products, sophisticated packaging and a proliferation of brand names. These factors, together with the brand loyalty of the affluent expatriate community, make it difficult for local products to penetrate the market. Moreover, there are neither advertising agencies nor the media to mount a widespread publicity campaign.

Djibouti's market for consumer goods is effectively segmented by the wide disparities in purchasing power, needs and expectations, taste, choice of retail outlets and access to the advertising media as seen between the poor, the affluent Djiboutians and the expatriate community. These factors complicate the promoters design of product, style of presentation and pricing strategies. To some extent the markets, even for basic goods, are incompatible, reducing the potential market for products still further. The marketing of milk is a case in point. In choosing expensive Tetra-pak one litre cartons for the packaging of its basic product, Laiterie de Djibouti has addressed the expectations of the expatriate community but effectively priced itself out of the large domestic market which continues to purchase powdered milk. Choice of half litre cartons would, as the management has since discovered, be more suitable for the vast majority of the population. Better still would be to use the cheapest packaging material available, heat sealed polythene bags, which would significantly reduce packaging costs and so the market price.

An expansion of trade between Djibouti, its neighbours and rest of East Africa is a viable option for Djibouti to extend the extent of the market. Djibouti, Ethiopia and Somalia, together with eleven other African States, are

members of the Preferential Trade Area (PTA)^{1/} for Eastern and Southern Africa. This free trade association came into being in July 1984 with a reduction of customs duties on a "Common List" of products, including virtually all manufactured and processed good, by 70 per cent. The intention is to remove all tariff and non-tariff barriers by 1996.

Djibouti is particularly favoured under the terms of the agreement. Whereas the rules of origin from other member States stipulate that the full preferential tariff rate applies only to companies that are managed and 51 per cent owned by nationals of the member State, with a sliding scale of reductions for companies with higher levels of foreign participation, companies registered in Djibouti need only have 25 per cent of their equity held by nationals to qualify for the full reduction. Under these circumstances, Djibouti is in a position to become a channel for foreign companies seeking to penetrate East African markets.

At present Djibouti's trade with the PTA countries is minimal - 10.6 per cent of total imports and 9.8 per cent of exports in 1986 - but there is certainly room for growth. The total population of the PTA is estimated at 180 million (including 44 million in Ethiopia and 6 million in Somalia) and so would appear to answer the problem of Djibouti's narrow internal market. However, a note of caution should be sounded. Shortages of foreign exchange, notably in the case of Somalia, are likely to restrain the growth of trade within the PTA and the goal of free trade is still far from being achieved. Furthermore, Kenya and Ethiopia already have relatively strong industrial sectors and Djibouti will be hard pressed to compete.

Ultimately successful export-led growth in the industrial sector will depend on Djibouti's ability to contain the soaring cost of production.

Soaring factor costs

Djibouti's industry bears high costs for labour, electricity and water. These factor costs are, perhaps, the most important limitation on the growth of export orientated industries and reduce the competitive edge of domestically produced goods in the domestic market.

The statutory minimum monthly wage has remained constant at DF15,860 (\$88) since 1980. In practice, however, the basic wage is about DF40,000 (\$220) per month and the average wage of employees registered with the CPS at the end of 1987 was DF57,317 (\$319) (see Annex Table A-4). Skilled staff are paid considerably more than this: a secretary can expect to earn DF100,000 (\$550) per month and a senior manager DF700,000 (\$3,900).

The actual cost of labour is higher still if the compulsory charges paid by employers (8.5 per cent of the wage as a contribution to the Caisse de Prestations Sociales and 7.2 per cent to the Service Medical Interenterprise (SMI) are taken into account: the average cost of labour registered with the CPS becomes DF66,316 (\$369). This compares unfavourably with labour costs in other developing countries (Table 2.8).

^{1/} The PTA was originally intended to encompass 20 countries in East, Central and Southern Africa. At present it has 15 member States: Burundi, Comoros, Djibouti, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Rwanda, Somalia, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

Furthermore, there are numerous interventions within the labour market. Labour laws protect employees against redundancy, control working conditions and practices. Recruitment is not always free, with pressure applied to employers in the selection and number of personnel appointed. At present, most public and private sector enterprises are over-staffed.

Table 2.8: Average monthly wage (including social charges) in free zones in selected developing countries, 1980
(US\$)

Country	Monthly wage
Indonesia	75
Mauritius	80
Haiti	95
Mexico	150
Tunisia	250
Barbados	250
Area of Hong Kong	275
Trinidad and Tobago	300
Puerto Rico	600

Source: Currie, J., Export Processing Zones in the 1980s: Customs-Free Manufacturing, Economist Intelligence Unit Special Report, No. 190, 1986.

Generally, low labour costs are a key factor in attracting investors. Given the high levels of unemployment, deregulation of the labour market may be sufficient to allow promoters to recruit staff at lower wage rates. The high cost of living in Djibouti will, nevertheless, keep the wage rate above that of neighbouring and other ACP countries.

The tariff structure for electricity has not changed since 1983 (Law No.83-0208). In its present form the tariffs favour the domestic consumer and penalize industry, which pays at a higher price per kWh at both medium and low tension (see Annex Table A-5). Industry must also support the heavy charges of the grid and the cost of reserve capacity. For these reasons several enterprises prefer to use diesel generators to meet their electricity needs.

While these tariffs are well over double the prices charged by most European countries, where industry benefits from degressive charges starting at a point well below that of domestic consumers, the Electricity Department of Djibouti (EDD) argues that they are not excessively high by African standards (see Table 2.9). Nevertheless, the EDD proposed a reduced and degressive tariff for industry in June 1988 as a measure for industrial growth. Even though EDD has operated at a profit for several years and, given the limited consumption of electricity by the industrial sector, the fact that the reduced tariff would not compromise the EDD's profitability, the proposition was referred for further study by the Council of Ministers. The long term development of the electricity sector, in particular the linkage with the Ethiopian grid and the installation of geothermal generating capacity (see Section 5.4), may provide an opportunity for a reduced tariff. Tariffs will, however, continue to reflect the price of oil which will remain the principal source of generator power in the long term.

Table 2.9: Comparison of medium tension electricity tariffs in selected African countries, 1986
(French Centimes per medium tension kWh)

Madagascar	42	Senegal	122
Congo	46	Gabon	125
Togo	46	Mauritania	140
Mozambique	56	Mali	140
Benin	74	Djibouti	148
Niger	77	Senegal	148
Burundi	80	Seychelles	151
Mauritius	86	Comores	230
Côte d'Ivoire	92	Chad	304

Source: Ministry of Industry.

The price of oil is fixed by the Service des Hydrocarbures which operates a price stabilization fund in order to reduce the impact of sudden changes in oil prices. The tariffs on 1 January 1988 were slightly above world market price.

Table 2.10: Retail price of petroleum products, as of January 1988

Product	DF per litre
Petroleum (Super)	135.0
Petroleum (Ordinary)	120.0
Gasoil	68.0
Paraffin	58.0

Source: Service des Hydrocarbures.

The tariff structure for water also penalizes large consumers, including industry. Charges increase outside Djibouti City.

Table 2.11: Tariff structure for water, as of January 1988

Consumption per two months (cu m)	DF per cu m
0 to 120	62
121 to 240	88
Greater than 240	124

Source: National Water Office (ONED).

The small size of the trading community also facilitates collective practices such as price fixing. As a result wholesale mark-ups on imported goods frequently exceed 60 per cent. Furthermore, the influential trading lobby has a vested interest in preventing the establishment of local industrial enterprises which might exclude or reduce the volume of imported products. At present there are no means of countering such practices since no complete record of distributors and agents is available and the legal system contains few measures against uncompetitive practices. If industrial development is to take place the government will have to combat these vested interests and ensure an environment of free competition.

Free trade, competition and protection

In line with the government's free trade policy, the present tariff structure offers no long-term protection to most industrial enterprises. Unfortunately, by failing to distinguish between primary, semi-finished and finished products, all of which are subject to the same internal consumption tax of 23 per cent by value, the tariff structure penalizes local industry since wastage during the production process effectively increases the tax per unit of finished product compared with imported finished products. In assembly industries, such as aluminium joinery, the flat rate tax effectively increases the tax burden on finished products by 30 to 40 per cent. Enterprises may receive exemption from the internal consumption tax for a period of up to ten years under the Investment Code, but, in view of the heavy burden of import costs, local industry would benefit from a more discriminating tariff structure.

Since 1981 the government has intervened to protect three local industries - the water bottling plant, the milk factory and, in May 1988, the privately owned flour mill - by imposing surtaxes on competing imported products. In the case of SOPINAD the surtax of 18 per cent on imported flour responds to the subsidies on flour imported from the EC. It will be reviewed at regular intervals with a view to its eventual elimination. The surtaxes on imported bottled water, milk products and fruit drinks used to protect the water bottling plant and milk factory are less justifiable. The high production costs and small market share of these public enterprises make it unlikely that this protection can be dropped in the near future. The imported products are not subsidized and the surtax, imposed under the "infant industries" argument, has protected the factories from free competition, with the hope that after a few years of operation, they should be able to survive.

Low capital formation

It has been estimated that around 92 per cent of the population make no savings at all while the remaining 8 per cent transfer most of their savings abroad. Certainly, outside the housing and transport sectors private sector investment is minimal. In 1982, gross fixed capital formation by the private sector amounted to only DF1,137 million (scarcely \$6 million), that is less than 2 per cent of GDP and only 8 per cent of total gross fixed capital formation.

Furthermore, the commercial banking system - comprising six private banks - has been developed to handle international operations (imports, re-exports, fund transfers and foreign investments) rather than to mobilize domestic savings. On 31 December 1987 deposits of clients in local banks totalled DF47,501 million - 44 per cent of which was held in foreign currency.^{1/}

^{1/} Banque Nationale de Djibouti, unpublished statistics.

Almost thirty per cent of these deposits were held by public companies and a large but identifiable part of the remainder was held by non-residents. At the same date, credits totalled DF31,262 million. Of these DF25,769 million were short-term loans (DF16,707 million as bank overdrafts and DF9,062 million as short-term loans), only DF5,490 were long- and medium-terms loans. Most of these were granted for the purchase and construction of houses. High interest rates for long-term loans, approximately 18 per cent in 1987, discourage applications from commercial investors. Consequently, the commercial banking sector plays little part in the finance of industrial development.

Some bankers explain their conservative lending strategies by pointing to their inability to rediscount long-term loans through the Djibouti National Bank. It should be pointed out, however, that the cost of rediscounting would raise the price of credit and would not necessarily guarantee a larger volume of long-term credits. Besides, the banks already have some facility for transforming short-term resources for long-term use. Nor would rediscounting, with the inflationary pressures it entails, be an unequivocally positive measure for the government to adopt. In reality the bankers refrain from the granting of long-term credits because of the inadequacy of feasibility studies and dearth of proposals presented by prospective creditors, a shortcoming that cannot be overcome by a reform of the banking system.

The establishment of the Djibouti Development Fund (Caisse de Développement de Djibouti (CDD)) in 1983 has greatly increased the finance available to private sector investors and, provides finance at less than half the cost of the commercial banks. The Fund's capital was provided by the State, donor organizations and commercial banks, it has also recycled funds through two lines of credit from State pension and medical insurance organizations. This development has done much to promote private sector fixed capital formation, though it is still likely that as much as 90 per cent of gross fixed capital formation is undertaken by the public sector, as in 1982, financed by external borrowing and donors' grants.

Fiscal incentive environment

The taxation structure for private sector companies is simple, comprising a tax of 20 per cent on net annual profits, a trading licence based on a fixed charge ranging from DF6,000 to DF17 million and a proportional charge based on the rental value of property, and an Internal Consumption Tax (Taxe Interne sur la Consommation) of 23 per cent on imports with a range of surtaxes on specified goods. Temporary relief from these charges may be granted under the Investment Code.

Outside the concessions of the Investment Code, the burden of taxation is heavy compared with that in most African countries. Between 1983 and 1986 the taxation increased as a proportion of GDP from 32.3 per cent to 39.8 per cent - a proportion comparable with that of industrialized nations (25 to 45 per cent). Furthermore, the contribution of businesses increased from 8.7 to 12.7 per cent over the same period, compared with a rise from 4.4 per cent to 4.8 per cent for the contribution paid by households. This is slightly higher than the proportion of taxes levied on businesses in industrialized countries in 1980: 7.9 per cent in the United States, 9.2 per cent in the Federal Republic of Germany and 9.6 per cent in Japan.

Nevertheless, taxation cannot be considered a primary cause of the low levels of domestic and external investment in Djibouti's industrial sector. Far more important are the size of the local market and the high factor costs.

3. ENTERPRISE-LEVEL PERFORMANCE AND PROSPECTS

3.1 State and mixed industrial enterprises

Société d'Exploitation des Eaux de Tadjourah (SEET)

SEET was established in 1978 to produce bottled water from a phreatic source near Tadjourah. Formerly, all bottled water had been imported from Europe. It has the status of a limited company with mixed capital: DF135 million (69 per cent) held by the State, DF40 million (25 per cent) held by the Cercle de Tadjourah, DF10 million (5 per cent) by EDD and DF10 million by private shareholders. The factory's capacity is fixed by the yield of the source - about 1,050 cu m per day - and the bottling plant capacity at about 365,000 cartons per year. Annual production peaked at 338,000 cartons in 1983. The PVC bottles are manufactured on site but all materials, other than the water - PVC pellets, cardboard packaging, bottle tops, labels and glues - are imported. At present, the plant employs 57 persons, about half of whom work at the factory and the remainder in the administration, technical and distribution services based in Djibouti City.

Production began in 1981 and, up to 1985, sales increased steadily (Table 3.1). In the course of 1985 production fell off because of repeated and prolonged breakdowns and a fall in the volume of sales inevitably followed. In both 1985 and 1986 the company made heavy losses, but, in 1987, production was restored to 87 per cent of capacity and losses had been eliminated by 1987. Production in the first half of 1988 exceeded 1983 levels and the company is expected to make a healthy profit.

Poor maintenance, inefficient management, high cost and inept competition are identified as reasons for the deterioration of performance in 1985 and 1986.

Table 3.1: Performance of the Société d'Exploitation des Eaux de Tadjourah (SEET) 1982 - 1987

	1981	1982	1983	1984	1985	1986	1987
Production ('000 cartons)	78	176	309	338	250	302	316
Sales ('000 cartons)	67	190	308	308	243	261	346
Turnover (DF million)	...	184	295	300	244	252	337

Source: Société d'Exploitation des Eaux de Tadjourah (SEET).

Production fell in 1985 and 1986 due to a series of breakdowns affecting the pumps, the generator and bottling plant. A UNIDO study^{1/} ascribed these breakdowns to poor maintenance, aggravated by the fact that the enterprise's

1/ Project: XP/DJI/86/035.

electro-mechanical engineer was based in Djibouti City not Tadjourah. This problem has since been rectified. On several occasions production came to a stop because of lack of materials. This reflects poor stocktaking procedures, which are handicapped by the separation of the administration and the factory.

In early 1986 SEET employed 74 persons. The plant was heavily overstaffed and in September of that year the management made 18 workers redundant. Wastage and loss of raw materials and products in 1986 had increased 40 per cent over the levels of 1984. Furthermore, the depreciation of the dollar led to an increase in the price of imported raw materials by DF10 million in 1986.

SEET is protected by a surtax of 26 per cent on imported mineral waters. This effectively excludes imported products from all but the most affluent sections of the population. Nevertheless, substantial imports of mineral waters continue: in 1984, the year of peak production at SEET, DF96 million worth of bottled water were imported, rising to DF151 million, 60 per cent of SEET's sales, in 1985. Virtually all of these imports are sold to the expatriate community who prefer established European brands and carbonated water, but also dislike the high salt content - double that of European mineral waters - of the local product. For the same reason, Eau de Tadjourah is unlikely to succeed as an export item. Within the domestic market sales are limited by the products high price. Sales to the French army alone amount to 40 per cent of production and the expatriate community as a whole accounts for an estimated 55 per cent of the total. When distilled water, marketed as Eau Naturelle, came onto the market in 1985 at one third of the price of Eau de Tadjourah SEET's sales dropped markedly. Competition from this source was also removed by government intervention. From 1986 distilled water was no longer allowed to be sold under the description "Eau Naturelle".

Production at SEET has been restored to near full capacity and the enterprise anticipates a healthy profit in 1988. If these forecasts are achieved the government could consider removing the surtax on imported bottled water and restoring free competition.

Laiterie de Djibouti

The milk factory, Laiterie de Djibouti, was conceived in response to Djibouti's dependence on imports of fresh milk for the luxury market, amounting to 4,388 tonnes in 1983, and the health hazard posed by the unhygienic conditions in which the poorer Djiboutians reconstituted cheaper powdered milk. It was established as a public company by Law No.87/AN/84. After three years of preparatory studies and construction, operations began in November 1984. The factory has four main products: whole UHT milk, skimmed-milk, fruit drink in three flavours and fruit yoghurt in seven flavours. Capacity per month is estimated at 369,000 one litre Tetra-pak containers, 450,000 quarter litre Tetra-pak containers and 150,000-200,000 yoghurts. The total capital investment - excluding working capital - was DF1,242.5 million and the factory employs 60 persons; at a cost of over DF20 million per employee the milk factory was a highly capital-intensive operation.

From the very start the factory has faced technical, marketing, financial and managerial problems. It has never achieved full production and, while sales increased gradually they fell short of the target in 1985 and 1986. Although the financial situation has improved steadily there is concern over mounting losses and continuing technical problems.

Table 3.2: Performance of the Laiterie de Djibouti, 1985 - 1987

	1985	1986	1987
Staff (number)	54	51	57
Capacity utilization (per cent)	43	57	64
Sales (DF million)	263	366	467
Percentage of sales			
Full milk	...	48	51
Skimmed milk	...	28	20
Fruit drinks	...	14	12
Yoghurts	...	9	17
Net result (DF million)	-237	-180	-113

Source: Laiterie de Djibouti, Annual Reports, 1986 and 1987.

The principal problems faced by the milk factory have been identified in the company's annual reports and the report of a UNIDO consultant:^{1/}

Technical. The installation of machinery took little account of the need for access to maintain and repair equipment, prototype components were installed - in order to save costs - for which it has been impossible to acquire spare parts, while the use of low grade stainless steel has resulted in rapid rates of corrosion of the piping and machinery. Only four years after the opening of the factory, a technical advisor has advised that much of the plant needs to be replaced. These factors, together with poor maintenance, have led to repeated and prolonged breakdowns. In August 1988, the Tetra-pak packaging equipment worked for a total of 62 hours and by September production had all but stopped.

High costs. A poor choice of equipment has left the company with machinery that is expensive to run and maintain. The reverse osmosis water distillation plant is wasteful, producing only one litre of distilled water from five litres of input. The Tetra-pak packaging plant consumes considerable amount of electricity and besides a fixed rate lease, Tetra-pak levies a royalty charge per unit produced. All maintenance, repair and displacement costs are the responsibility of the factory and the imported packaging materials can only be bought from a single supplier. Packaging accounts for as much as 40 per cent of the production costs for Tetra-pak products. Electricity and water account for another 12 per cent of production costs. The recent depreciation of the dollar has further increased the cost of milk powder and packaging materials, and which are imposed from Europe.

Finances. The milk factory began operations without working capital. In its first year of operations the company's operating costs had to be met by a bank loan at 14 per cent. Concessionary finance for working capital was eventually made available in 1986.

^{1/} Project: SI/DJI/86/051.

Management and preparation. Detailed marketing studies were not undertaken until after production had begun and these showed that the products most suited to the market were very different from those originally planned. Similarly, a publicity drive was only mounted after sales had failed to take off. The marketing procedures, choice of retail outlets and terms purchase were also defective: giving too much freedom to the retailer in setting the price of the products and granting generous credit facilities. These shortcomings were compounded by inadequate stock-taking procedures leading to delays in the arrival of materials, the poor supervision of production and distribution and failure to meet order requirements, high rates of loss and wastage.

Prices and sales. Despite the protection of a surtax of DF70/kg on imported milk and DF160/kg on imported yoghurts and fruit drinks the milk factory's products have found it difficult to penetrate the market. High prices, reflecting high production costs and the large mark-ups charged by retailers, and the poor product design, which ignores the needs of the local market, are the main reasons behind weak sales performance. The expatriate community and the affluent Djiboutians account for a large proportion of the sales: in 1986, 90 per cent of skimmed milk, 50 per cent of yoghurt, 37.33 per cent of full milk and 31 per cent of the fruit drinks were sold to the French Army and Djibouti's three supermarkets. Djiboutians continue to buy cheaper imported powdered milk and if this market is to be developed a competitive price is essential. Three means of achieving a lower price have been put forward. The first is marketing milk in half litre containers, the practice elsewhere in Africa. The second is the sale of milk in one litre polythene bags which would reduce the cost of packaging to DF4 per litre. The third is to control the mark-up retailers put on their sales. Yoghurt sales grew slowly in 1985 and 1986 because the market was unaccustomed to the product. With the diversification of the flavours and the provision of refrigerated display cases in forty retail outlets during 1986, however, sales increased by 50 per cent in 1987. The company is trying to increase the number of outlets for yoghurts in the future and anticipates further sales growth. Sales of fruit drinks were negligible in 1985 due to the high prices relative to comparable imported fruit drinks and the choice of cartons for packaging rather than bottles. In 1986 sales increased by 450 per cent but only after prices had been reduced below marginal cost. When a remunerative price was restored sales quickly fell back to their former level. The introduction of new flavours and a perforated carton with a straw appear to have improved the product's sales performance but it remains well below a profitable level.

The milk factory would, the management predicted, make further losses in 1988 because of low levels of production and sales. Substantial funding is needed for refurbishment of the plant. Financial assistance will fail to improve the enterprise's profitability unless sales performance improves markedly.

Société d'Alimentation du Betail (SAB)

A project for an animal feed factory was put forward at the 1983 Donors' Conference with the intention of improving the quality and yield of the cattle, camel, sheep and goat herds, providing feed for a planned poultry farm and emergency relief for nomads' herds during droughts. Finance of DF600 million was provided by the Arab Development Fund and technical assistance by the Danish Government. Construction began in 1987 on a site

15 km from Djibouti City, under the supervision of the Ministry of Agriculture. Production started in mid-1988. The current work force is 30 strong giving a capital cost per permanent employee of DF20 million.

The plant's capacity is 10,000 tonnes of feed per year (3,000 tonnes of pellets and 7,000 tonnes of flour) and the break even point at current prices is estimated as 7,000 tonnes per year. Prices have been set at the level of imported animal feeds from Ethiopia, although it is thought that the two products are not directly comparable since the nutritional value of imported foodstuffs is lower than that of the factory's product. During the first three months of production output totalled 150 tonnes: a capacity utilization rate of less than 10 per cent. This was largely due to start up difficulties and full production was anticipated by the end of the year, if a market for the product could be found. Marketing, transport, supplies of raw materials and the pricing strategy are, however, likely to present problems over the long term and unless they can be resolved the profitability of the enterprise is questionable.

Marketing. The plant began production before a detailed market survey had been carried out and the number of farm animals, the target market for animal feeds, let alone the total herd strength, is still unknown. This is not seen as a handicap by the management since full production could be achieved with regular sales to farmers with a herd of only 7,000 sheep and goats. However, the product has met with resistance from farmers who are used to feeding their stock straw and doubt the suitability of pellets. They tend to use pellets as a supplement and irregularly, although the beneficial effects of the enhanced feed depends on their daily use. This eliminates the feed's competitive advantage over imported straw. Furthermore, the use of feeds requires a change in feeding methods: the use of troughs rather than sprinkling the feed on the ground as has been the traditional practice. To overcome these marketing problems the factory must educate animal farmers as to the benefits of using feeds and the appropriate feeding methods. The factory may also, at a later date, encourage animal merchants, who currently export animals without fattening them up, and the nomadic population, to use enhanced animal feeds. This would increase both the factory's potential market and the value added of the livestock sector.

Transport. At present, most farmers purchase the animal feeds at the factory gate. To encourage farmers to use the products, however, delivery must become part of the factory's service. This presents two problems. Firstly, transport costs are high - doubling the cost of a bag of pellets on delivery to a site 120 km away. Secondly, the rough rural roads cause the flour and straw to separate out. While this problem does not arise with pellets, only 30 per cent of output can be delivered in this form. The management is eager to produce all its feeds in pellet form to facilitate transport.

Raw materials. All the raw materials used are imported: nuka cake, straw, cotton oil cake and barley from Ethiopia by railway, maize from Thailand, soya from the Far East and United States and concentrates from Denmark and France. This inevitably increases costs, particularly where the products are delivered by bulk carrier as the purchases are relatively small. The solution proposed by the management is to persuade suppliers to deliver materials from overseas by container.

Pricing strategies. Prices have been set to compete with imported animal feeds and straw, which is essential if the product is to penetrate the market, but current prices neither reflect the relative nutritional value of the products or provide a sufficient return on the capital. In the long-term prices will have to be increased if, when repayments on capital begin in 1989, the company is to avoid losses. Nevertheless, a change in pricing strategy to reflect the relative nutritional content of competing animal feeds should be delayed until the product is established. The long-term goal should remain viability but, as a public company, the government may choose to interpret the factory's performance in terms of its wider contribution to increased productivity in the livestock sector and provide the factory with short-term financial support.

3.2 Private sector manufacturing enterprises

A brief analyses of the activities and performance of the principal private sector manufacturing enterprises is provided below. Full details on the level of investment, output and financial profitability of these enterprises are not available. However, analyses, based on interviews with the management, will help identify the constraints and problems faced by manufacturing enterprises in Djibouti.

Glacières Coubeche

The ice factory Glacières Coubeche is the oldest manufacturing plant in Djibouti. The factory was first built at Obock, before Djibouti City was founded, and then transferred to its present site near the port in the 1890s. It is a private company affiliated to the Coca-Cola bottling plant, a hotel and a supermarket which, together, employed 341 persons in August 1988.

The ice is produced in five saline submersion tanks with a combined capacity of 58 tonnes per day. Over the whole year the plant works at only one-quarter of its full capacity, producing 4,900 tonnes in 1984, 5,150 tonnes in 1985 and an estimated 4,600 tonnes in 1986. However, demand is seasonal and during the summer months production averages 45 tonnes per day falling to 3 tonnes per day during the winter. A long-term decline in demand is anticipated as refrigerators become more widespread and retail outlets develop more sophisticated methods of storage and preservation during transport. At present, however, ice blocks are still the most common method of commercial cold storage. The blocks are either sold at the factory gate or distributed by the company's fleet of insulated lorries.

Two qualities of ice are sold, one made from tap water the other from distilled sea water. A distillation plant on site has a capacity of 125 tonnes of water per day, a large part of which is consumed by the Coca-Cola factory. Associated with the ice factory is a complex of cold storage warehouses for perishable imports. About 130 persons work at the ice factory, including the warehouses and the distribution system.

Soft Drinks Bottling Plant

The soft drink bottling plant was installed in 1964 on a site immediately behind the ice factory. Three brands of soft drink are produced: Coca-Cola, Fanta (Orange, Lemon and Grenadine) and Sprite. These are all manufactured under licence and, apart from a small quantity of Coca-Cola imported in 1.5 litre plastic bottles, the factory is the sole outlet for these products.

There are two bottling lines with an estimated combined capacity of 250,000 bottles per day. Fully mechanized bottling lines were installed in 1984 on the insistence, according to the management, of the Ministry of Labour which objected to the highly repetitive nature of the work along the production line. As a result, 25 jobs for unskilled workers were eliminated.

Production is well below installed capacity and varies by 30 per cent between the winter and summer months. The concentrate, the 35 tonnes of sugar used per week and replacement bottles are all imported. A constant supply is guaranteed by regular orders from Europe and the United States with a delay of about three months before delivery, nevertheless production has never been forced to stop because of inadequate supplies. The concentrate is diluted with a mixture of 30 per cent distilled water and 70 per cent tap water - tap water is too saline to be used alone. Carbon dioxide is produced on site in a compression plant with a capacity of 70 kg per hour. Part of the output is exported to soft drinks bottling plants in Ethiopia and Somalia in ten tonne loads.

Storage tanks for water and reserve generating capacity are maintained in case of water shortages or mains power supply failure. Electricity consumption from the mains supply totalled 2,408 million kWh in 1984 and 2,302 kWh in 1985. The work force numbers about 180 persons, most of whom are unskilled. The technical and most of the management staff are expatriates even though the management estimates that the cost is about twenty times higher than employing local staff in these roles. Attempts have been made to recruit technicians locally but their training is inadequate for the responsibilities of these posts. Although company accounts are not available it is clear that the bottling plant is an efficient and highly profitable enterprise.

Société d'Industrie Alimentaire de Djibouti (SIAD)

The company was set up in 1986, promoted by the owner of Glacières Coubeche and the Coca-Cola bottling plant, to produce the Miko brand of ice creams which are currently imported and distributed by Glacières Coubeche. The project anticipated a total investment of DF458 million of which DF257 million was to be spent on the import and installation of machinery. As originally planned the plant will have the capacity to produce 6,000 ice creams per hour. A total work force of 35 persons is employed, 15 unskilled workers, 15 skilled workers and two supervisors employed locally together with two expatriate managers and an expatriate technician.

In December 1986 the company received generous tax exemptions under Regime 'B' of the Investment Code. The company has also benefitted from a loan granted by the Djibouti Development Fund. Clearly, the government has considered the project worthy of its full support. While the substitution of imports by locally produced products is to be encouraged, the importance of the plant should be qualified by recognizing that, as all the machinery, raw materials and concentrates will be imported, the factory will have little linkage with or impact on the local industrial sector. Furthermore, the selection of a heavily automated manufacturing process will reduce the employment generating potential of the investment.

SOPRAL

The construction of a large industrial ice cream factory may compromise the profitability of an existing small-scale ice cream manufacturer, SOPRAL.

Established in 1979 with an investment of DF21 million, SOPRAL produces 400 litres of ice cream per day. This is about 40 per cent of its capacity. The enterprise employs five persons. Most of the output is sold to hotels and restaurants or directly through the adjoining cafe. In this sense the local production of Miko brand of ice creams - which are sold for immediate consumption - is unlikely to affect sales. Besides, imported ice creams are already available on the market. However, if SIAD diversifies its products in order to use its full capacity SOPRAL could find itself in direct competition with the industrial manufacturer.

Société Portuaire Industrielle Alimentaire de Djibouti (SOPINAD)

Following pressure from the government SCGIK, a company holding a virtual monopoly on the lucrative trade in khat, established SOPINAD as a subsidiary in 1981. The company, which mills wheat and bran, had a startup capital of DF750 million. It employs 57 persons and has the capacity to produce 12,000 tonnes of flour per year.

The company was slow to get off the ground and quickly ran into competition from imported products. Working below capacity, production costs increased to a return price of DF51,000 per tonne of flour, DF6,000 tonnes higher than the government's fixed price. Consequently, heavy losses were suffered in the first two years of production. In June 1988 the government intervened to protect the company by imposing a surtax of 18 per cent on imported flour. Since then, sales have increased and a profit is anticipated for 1988. The principal problems faced by SOPINAD may be identified as:

Establishment problems: In April 1982 SOPINAD signed a contract with a French company to import and install a flour mill. Thirty per cent of the cost was paid on signature and a credit covering another 50 per cent of the costs was opened to authorize the import of the machinery and the construction materials. Following the government's advice an application for the rental of a site within the Port was made in November 1982. It was only in July 1984, however, that SOPINAD received permission to begin construction. During this sixteen-month delay considerable capital was tied up while the materials were stored in the unfavourable conditions of heat and humidity of the port. The mill was eventually completed in late 1985 and the first load of grain 3,800 tonnes of wheat arrived in February 1986. However, the Port authorities refused to allow SOPINAD to begin production because of the risk of fire posed by its location next to the Mobil oil storage depot. Production was delayed until a wall was constructed between the two sites. Eventually, in June 1986, over four years after the contract to build the mill had been signed, production began. By this time, however, the quality of the first load of grain had deteriorated markedly. Nevertheless, by undercutting imported flour the factory was able to achieve a respectable volume of sales.

Supplies of raw materials. The original shipment of wheat had been purchased on the world market but SOPINAD also contracted to purchase grain given as food aid at world market prices. In 1987, 3,000 tonnes of wheat were ordered for SOPINAD which opened a letter of credit for payment on embarkation. Unfortunately, the arrival of the shipment was delayed from 15 March to 13 June 1987 by which time the mills stocks had been exhausted and production had, temporarily, come to a halt.

Competition from imports. As early as January 1987 groups of bakers in Djibouti combined to purchase shipments of flour from the EC. Heavily subsidized this flour sold for DF35/kg compared with SOPINAD's sales price of

DF45/kg. When production of flour at the mill came to a halt in May 1987 the domestic market had to depend on imports and SOPINAD was unable to regain its market share when production restarted. By the end of 1987 the mill's sales accounted for only 4,600 tonnes of a domestic market of 13,749 tonnes. The problem of competition was aggravated by the poor quality of wheat imported as food aid and the poor quality of the resulting flour. At the same time sales of milled bran, the second of SOPINAD's products, were slow to take off - averaging only 50 tonnes a month or one sixth of capacity.

High costs. Delays in starting up and low rates of capacity utilization inevitably led to increased costs but so too did the choice of site, overstaffing and the huge electricity bill. Expenditure in the year 1986-1987 totalled DF83 million, of which 45 per cent went on the work force, 11 per cent on rent and 8 per cent on electricity, though this increased to 19 per cent of total costs per month when EDD re-evaluated the charges.

Since the end of 1987 SOPINAD has resolved most of these difficulties. Costs have been cut by reducing the size of the work force in the administration, the area rented from the port, the credit given to clients and the electricity consumption. SOPINAD has also come to an agreement with the government and the EC about the quality and timing of the grain shipments. Payment will now be made three months after delivery. More important, SOPINAD has received protection from the government in the form of an 18 per cent surtax on imported flour. This surtax will be reassessed regularly to take account of the changing price of flour imports. The Ministry of Commerce has fixed a ceiling of DF45/kg for flour, which corresponds to the price at which SOPINAD can sell profitably with production at 9,000 tonnes per year, amounting to about 75 per cent of the domestic market. In the months after the tax was imposed, flour sales increased rapidly and the company now expects to make a healthy profit in 1988.

Najwal Aluminium, Boulaos Industrial Estate

The company was set up in 1981 and began operations in December 1982. It manufactures a range of prefabricated aluminium windows, shutters, ceilings, partitions and other aluminium joinery products. These products are assembled from moulded aluminium, glass, formica and plastics imported from Europe and the Far East. The initial investment of DF40 million was provided by a company with similar enterprises in Lebanon and Yemen Arab Republic. Under the Investment Code the company received an exoneration from the trading licence for eight years and exoneration from the TIC on imported raw materials for two years.

Current production is estimated at 1,500 windows, 1,500 doors and 100 partitions per year. The products are of high quality and a wide range of finishings and styles are offered, all of which are made to order. Turnover for 1987 was approximately DF200 million, compared with DF102 million in 1985 and DF99 million in 1984. The management calculates the company's market share as 23 per cent. Virtually all sales are to the French Army. In the past two orders have been sent to Madagascar but otherwise there are no exports.

Production costs are high. The wage bill totals DF13.2 million per year, the rent on a site in the Boulaos Industrial Estate cost another DF18 million per year and electricity DF6 million. Dependence on imported materials forces the company to maintain large stocks tying up capital. The import tariff

structure, which charges finished goods and raw materials the same ad-valorem rate of 23 per cent, compounds the problems of high costs for imported raw materials since, when wastage during the assembly process is taken into account, the tax per unit of finished good is higher than that paid by imports. Nevertheless, the prices Najwal offers are competitive with imported products.

Najwal has requested protection from the government in the form of a surtax on imported aluminium products arguing that the capacity of existing plant in Djibouti is sufficient to meet the needs of the local market. Such protectionist measures are not warranted, although a precision of the tariff structure to distinguish between imported finished goods and raw materials merits consideration.

Djibouti Editions Diffusion (DJED), Free Zone Djibouti

DJED, a private company, was set up in 1983 to transform imported rolls of paper into sheets for sale to printing presses and retail outlets and to produce exercise books for the local market. The project was initially proposed at the 1983 Donors' Conference with a request for DF235 million funding. It was seen as a means of reducing Djibouti's dependence on imported finished paper products, estimated at 430 tonnes in 1983 and costing between DF250 and DF300 million in foreign exchange. Although French Aid Co-operation (FAC) funded a feasibility study, no other external finance was forthcoming. The Ministry of Industry subsequently sought a private sector promoter. A total share capital of DF54 million was raised from Djibouti nationals and another DF8 million from a French citizen who agreed to act as agent. A long-term loan of DF75 million was arranged from the Djibouti Development Fund.

At present, DJED faces bankruptcy: the staff have not been paid for several months, the enterprise is far behind on its loan repayments, the stock is depleted and there are no funds to purchase materials.

Start-up difficulties. On the advice of the Ministry of Industry DJED rented a site in the Free Zone in 1983. Over the following two years machinery and materials were sent from France, the factory was built and the staff trained under the supervision of an expatriate consultant and the Ministry of Industry. Production only began in 1985. The management argues that the size of the factory built was far larger than necessary and the site rented from the Port Authority was more expensive than alternative sites outside the Free Zone. Furthermore, the machinery purchased from France was not suited to the company's needs - one of the machines has never been used - and far more expensive than market prices. In an effort to save money, the factory was never attached to the mains grid. Power is supplied by a diesel generator which is not large enough to power all the machinery at once and so, from the start, the factory worked below capacity.

Training and management. The training received by the technical staff was inadequate and, with frequent breakdowns in the machinery, the quality of the product was poor and orders were frequently delayed. Consequently, clients preferred to purchase imported goods. Production was only intermittent through 1986 and early 1987.

Finances. In May 1987 a CDI technical assistant was sent to identify the managerial and technical problems faced by the company. Verification of the accounts revealed a deficit of DF135 million. The lack of working capital prevented the company purchasing stock and production had ground to a halt.

In an attempt to revitalize the company, the management abandoned the production of exercise books and arranged a loan of DF14 million from the Banque de Djibouti et Moyen Orient for the purchase of offset printing machinery. This machinery was installed in January 1988 and it was hoped that sales of printed paper could generate a revenue of DF12 million per month. Unfortunately a continuing shortage of working capital has prevented the company building up adequate stocks of paper and ink and so production has been well below capacity. By September 1988 production had all but stopped.

With funds to purchase basic materials and link the factory to the electricity grid, printing could start up again. However, neither the commercial banks nor the Djibouti Development Fund are prepared to make further funding available and the company may soon have to be liquidated. If funds are made available the company will need continued technical and managerial assistance to develop a management strategy.

Air Liquide, Djibouti

This subsidiary of Air Liquide (France) was set up in Djibouti in 1950. The factory is on a site just outside the Free Zone, close to the port. It employs fourteen persons. In 1987 the company produced 22,000 cu m of oxygen, 7,000 cu m of acetylene and 500 cu m of ammonia. The company also sells a small quantity of protoxyammonia, argon and freon imported from France. Turnover for 1987 amounted over DF100 million and taxable profits amounted to DF20.7 million.

Most of the output is sold on the local market, which is restricted by the absence of heavy industry. In 1987 the plant was working at only one-quarter of its capacity. The two largest consumers are the medical services and the French Army which, combined, account for about 40 per cent of the sales of oxygen. Other major consumers are garages and the construction industry. Sales to the construction industry fluctuate markedly from year to year. In 1986 the construction of the Berbera cement factory in Somalia boosted demand for oxygen to 27,000 cu m from only 18,000 cu m the year before. With the completion of the 'Unity Road' in June 1987, the other large project of the last few years, and a slump in the housing construction forecasts for production in 1988 and 1989 are markedly lower than in the last few years.

There are few opportunities for export to neighbouring countries. The large construction projects underway in northern Somalia have been stopped by internal political troubles and Ethiopia is virtually self-sufficient. Sales to Democratic Yemen, which accounted for about half the plant's output in the late 1970s, tailed off following the establishment of a local air compression plant. High prices also discourage the development of an export trade. Current prices - DF2,700 per cu m for oxygen and ammonia and acetylene DF4,150 per cu m - are roughly double those in Europe. This reflects both the size of the plant and the high factor costs: the annual wage bill amounts to DF33.6 million and the cost of electricity in 1987 was DF8.4 million.

An increase in production in the near future will depend on the introduction of local heavy industry or increase in activity in the construction sector. Neither of these developments are anticipated. However, if demand does increase the company can increase production eightfold within a matter of months by the utilization of dormant capacity and the addition of further plant to the same site.

Société "Xareed" de Fabrication des Boissons Hygiéniques, Djibouti

Société "Xareed" is a private company producing distilled water. The total investment realized when the company was set up in 1984 was DF40 million. This company has not benefitted from the Investment Code and pays the Taxe Interne sur la Consommation (TIC) and patent charges. Production capacity is 1,200 litres per day. At present the factory employs nine persons and the annual cost of salaries, as declared to the CPS, is DF4.5 million. In response to a questionnaire sent by the Ministry of Industry, Société "Xareed" identified electricity as an important component of total costs.

Although the distilled water is primarily intended for use by the transport and industrial sectors rather than domestic consumption, Société "Xareed" boosted sales in its first year of operations by selling bottled distilled water as "Eau Naturelle". The price of DF20 per litre was less than one seventh of the price of Eau de Tadjourah and the product sold well. In 1986, however, following protests from SEET, the government forced Société "Xareed" to remove the term "Eau Naturelle" from its publicity. Since then sales for domestic consumption have decreased.

SOFDIT (Fabrication des Sandales en PVC), Djibouti

SOFDIT, a family enterprise producing thong sandals from PVC, began production in 1982. In 1984 the promoter proposed to increase the level of production by employing thirty workers, purchasing a wider selection of sizes and producing the thong component that was formerly imported. An application for a loan to purchase the new machinery was made to the Djibouti Development Fund and to the Investment Code Commission for exemption from the TIC on imported raw materials. This application was rejected on the grounds that SOFDIT had already received an exemption from the tax in 1980. The Commission criticized SOFDIT for failing to undertake a market survey before proposing its new investment. Nevertheless, an exemption on the TIC on imported capital goods was granted.

The company has now ceased production. A survey carried out by the Ministry of Industry in December 1986 explained that its closure resulted from competition from imported products in the small local market and the poor maintenance of equipment. There are no plans to re-open the factory.

Société Djiboutienne de Fabrication et Conditionnement (DJIFACO), Djibouti

DJIFACO, a private company, was set up on the Boulaos Industrial Estate in 1981 with a capital of DF11 million. It produces four brands of domestic liquid detergent - Djivaiselle, Djivitire, Djisol and Shampooing a l'Huile de Coco - from concentrates imported from France and the Federal Republic of Germany. There is no mixing or bottling machinery in use at the factory and the four workers employed at the factory are all unskilled. Production varies between 60,000 and 70,000 bottles per year: a level estimated at about 35 to 40 per cent of capacity. Turnover is estimated at DF20 million per year, including sales of imported cleaning products. The main costs are salaries (DF1.7 million per year according to statistics provided by the CPS) and raw materials.

The main constraint on increasing production is the size of the market. The management estimates that it holds about 40 per cent of the market for liquid detergents, though this market numbers only 16,000 consumers. Most

Djiboutians purchase cheaper all-purpose powdered detergents and they consider DJIFACO's products luxury items. In recent years the volume of imported powdered detergents, mostly from France and the People's Republic of China, has increased steadily - from 491 tonnes in 1983 to 837 tonnes in 1985. These finished products pay the same TIC as imported raw materials. This is equally true of the imported liquid detergents that compete directly with DJIFACO's products, particularly among the expatriate community which is used to the French brand names that are readily available in Djibouti. Even so, DJIFACO's products are competitively priced although they are occasionally undercut when old stock is "dumped" on the market.

There is little opportunity to increase sales through exports. Attempts to find outlets in Somalia and Ethiopia were discouraged by import restrictions and local competition. Exports to Yemen Arab Republic are impossible given the 150 per cent surtax protecting local producers. DJIFACO has requested protection for its products so as to increase its domestic market share and believes that it could increase production fivefold within three months to cope with the increased demand. With increased turnover the management believes that it would become profitable to produce its own plastic containers.

Enterprise Artisanale de Céramique de Djibouti, PK20 Djibouti

A small clay brick factory was established at PK20 on the road from Djibouti City to Arta in 1986. The promoter financed the project with personal capital of DF25 million and a DF18 million loan from the Djibouti Development Fund. The enterprise was exempted from the trading licence fee and TIC and surtaxes on imported materials for the first five years.

The plant consists of a semi-automatic brick making machine with a capacity of 400 cu m. It is powered by a diesel generator. The bricks are baked in a 16 cu m oven fuelled with used lubricating oil, thereby saving on fuel costs. Clay is dug in pits used by a stone-breaking plant nearby. There are seven employees, all of whom were trained at the factory.

Four types of brick are produced: a hollow brick 15 cm by 20 cm by 30 cm, another 6 cm by 11 cm by 22 cm, and two styles of facing brick. Output is about 20 cu m of bricks per week and annual turnover is estimated at DF25 million. Although the construction industry was, initially, slow to adapt to the new material, being accustomed to building with concrete blocks and discouraged by the poor quality of the first products, as technical problems with the firing process have been resolved and the competitive price of the clay bricks has become better known, sales have increased steadily. Indeed, during the second year of production sales doubled. At present the factory is unable to meet demand. A new oven is under construction which will double output. This has been financed from the profits of the first two years' operations. A further bottleneck in the production process - the breaking and washing of clods, which is currently done by hand - will be removed by the purchase of more machinery. An application for a further loan from the Djibouti Development Fund is being prepared. Even with these developments, however, the factory is unlikely to be able meet current demand estimated at about 2 million bricks - four villas - per month. A further oven and a second working shift are planned for the near future.

3.3 A review of proposed industrial projects

This section examines selected industrial projects proposed by the Ministry of Industry, experts from donor organizations and private entrepreneurs. The projects can be classified into three broad groups: those aimed at import substitution, those seeking to develop natural resources and those providing a linkage with other sectors of the economy.

Pasta and biscuit factory

A Pasta and Biscuit Factory project was presented at the 1983 Donors' Conference and a feasibility and market study, funded by UNIDO, was completed in 1985. The study considered the plant viable, provided that it received exemption from the TIC on imported raw materials and that the customs structure protected the plant against "dumping" by surtaxes on imported pasta and biscuits. An internal market of 3,000 tonnes of pasta and 300 tonnes of biscuits per year was foreseen, with potential export markets in Ethiopia and Somalia. The level of investment required for a plant with 3,400 tonnes annual production capacity was estimated at DF541 million. The break even point would be at 60 per cent of capacity and a return on the investment could be achieved within five years.

Despite this favourable prognosis the project has not attracted a promoter, perhaps because high investment required and the necessity of some degree of government protection. Nevertheless, the steady growth of pasta imports, from 2,753 tonnes in 1983 to 3,793 tonnes in 1985, indicates that a small pasta factory could find a local market. Moreover, the project falls within the bounds of the government strategy of industrial development through import substitution and would provide a downstream linkage for the existing flour mill.

Vegetable oil mill

A project proposed by a UNIDO mission in 1986, the vegetable oil mill would process imported soya and cotton seed oils for the local market and for export to Ethiopia and Somalia. The oil could also provide a raw material for the industrial manufacture of soap and the residue could be fed to cattle. In 1985 Djibouti imported 75 tonnes of peanut oil, 575 tonnes of soya oil and 3,139 tonnes of palm and other vegetable oils at a total cost of DF564 million. Production at this scale is better suited to small artisanal oil milling enterprises than a large industrial plant.

Plastic packaging factory

At present only SEET produces its own packaging materials, all other enterprises depend on imports. This has an opportunity cost in terms of increased stocks required and presents the danger of delays in delivery. It is unlikely, however, that the scale of the domestic market could support an industrial packaging enterprise, a project that was proposed by a UNIDO mission in 1982. In 1985 imports of plastic packaging materials amounted to 205 tonnes at a cost of DF73 million. A successful packaging plant would have to be versatile enough to produce a wide range of packaging materials for the local market, this would inevitably require increased capacity and high overhead costs. More successful, might be a smaller, artisanal plant, or the introduction of packaging plant at the existing industrial enterprises.

Soap factory

A soap factory was first proposed by a private company. The feasibility study was completed in 1980, ministerial agreement to the project was given, a site was obtained and developed, but, instead of installing machinery, the company made the factory into a warehouse.

The project was later presented to the 1983 Donors' Conference. A total investment of DF625 million was envisaged for a factory producing 900 tonnes of household soap, 100 tonnes of toilet soap and 500 tonnes of powder soap. Funding would, the government hoped, be provided in part by a private company. The pre-feasibility study indicated that this level of production would represent about two-thirds of total imports at the time. In 1984 a Saudi Arabian businessman showed interest in the project but it was abandoned before even a feasibility study had been undertaken. A brief look at the level of soap and soap powder imports - 2,357 tonnes in 1985 at a cost of DF385 million - and their consistent upward trend since 1980, indicates that potential market for import substitution does exist. The question is whether, a small plant could be profitable in this notoriously competitive industry where there are significant economies of scale.

Cigarette and tobacco factory

At the end of the last century there was a small cigarette factory in Djibouti. Today, however, all cigarettes and tobacco products are imported. The total value of tobacco imports in 1985 was DF1,500 million - 759 tonnes - most of them coming from the United Kingdom and Netherlands. Despite a 45 per cent surtax on imports, cigarettes sell very cheaply in Djibouti and there is a significant but unquantifiable trade with neighbouring countries. The proliferation of foreign brands would make it very difficult for a local manufacturer to secure a market share without import controls. Alternatively, if a factory could secure manufacturing licences for a wide range of imported brands, a cigarette factory might achieve a competitive output. At present, however, several importers hold 'exclusive' trading agreements with manufacturers and, unless they can be accommodated, there is likely to be considerable resistance to such a project from the commercial sector.

Wood transformation

The construction industry depends on imported wood products including, in 1985, 1,042 tonnes of imported planks. An industrial plant for the preparation of these imports for construction and furniture industry was put forward at the Donor's Conference. The estimated cost of the project was DF195 million. It has now been abandoned. Wood imports have decreased markedly since 1982, when the pre-feasibility study was undertaken, largely because of the increased use of aluminium.

Clothing factory

The clothing industry has seen rapid growth in the Caribbean Region under the Caribbean Basin Initiative, based on the assembly of cloth cut in the United States and then re-exported into the American market. Development of a similar export orientated clothing industry in Djibouti depends on two factors: first, the relaxation of the rules of origin under Lomé III and the following convention, currently under negotiation, and secondly, in this labour intensive industry, a reduction in labour costs.

A clothing industry directed at the domestic market would also face the problem of high production costs because high wage levels and the expense of importing textiles. Finished clothing imported from the Far East is competitively priced and has the advantage of including internationally renowned fashion brand names. Under these circumstances a local clothing manufacturer is unlikely to succeed without protection. A small tailoring workshop producing fashion clothing failed after it was unable to secure a place in the market. However, a weaving and clothing assembly project was proposed by a local entrepreneur, who runs a small artisanal weaving and clothing manufacture enterprise, in 1987. This project, with an anticipated investment of DF51.7 million, will employ 55 persons. The project has been exempted from the TIC on imported materials necessary for the investment and the trading licence fee for six years by the Investment Code Commission.

Shoe factory

In 1982 the Ministry of Industry requested funding for a feasibility study on the manufacture of shoes for the domestic market. A range of raw materials were considered: leather, plastic, vinyl and textiles. An artisanal enterprise, SOFDIT, producing plastic thong sandals commenced operations in 1986 but has since closed down because of the narrowness of the market and competition of Far Eastern exports. Despite this reverse, a shoe factory, perhaps based on locally cured leather, merits consideration for a feasibility study of local and, more important, export potential. Given the high factor costs in Djibouti a shoe factory, however, is unlikely to be able to compete, either at home or abroad, at the lower end of the market. High quality manufacture will, however, demand high quality leather and a well trained labour force, neither of which are available in Djibouti at present.

Assembly of household refrigerators and air conditioning units

Nile Trading, a local company currently importing household refrigerators and air conditioning units, proposed a factory assembling these products from imported kits. Market, technical and financial pre-feasibility studies were prepared in which the promoter aimed to take 20 per cent of the local market initially, producing 500 refrigerators and 1,000 air conditioning units per year in the the first five years of operations. The company would have employed twenty persons, but it was abandoned in 1983. Another importer, Société Chideh, proposed a similar project in 1984. Following a detailed feasibility study this too was abandoned.

Imports of refrigerators and air conditioning units were valued at DF2,836 million and DF2,121 million respectively in 1985, and, since 1980, the value of imports have grown steadily. The project would, therefore, appear to merit a detailed feasibility study.

Pharmaceuticals

In 1979 a study by the Centre de Développement Industriel des Pays Arabes (IDCAS), Tunis, advised that the development of a pharmaceuticals industry would be feasible in the long term, once Djibouti had developed the basic laboratory skills necessary for quality control. In 1987, a local company, the Société Djibouto-Pharma, requested tax exemptions under the Investment Code for a factory producing injectionable solutions hygienically packaged in PVC bags or bottles. The project envisaged an investment of DF190.5 million and a staff of 10 persons. The factory would produce 400,000 to 600,000 doses

per year, which would represent 60 per cent of the regional market and 40 per cent of the internal market. Having the support of the Ministry of Health, which holds a monopoly on the distribution of medicines in Djibouti, the Investment Code Commission granted the enterprise the full benefits of the Code under Regime B, including exemption from the tax on profits for six years.

The project's success depends on its ability to penetrate regional markets. These are not, by any means, open. Both Ethiopia and Somalia have young pharmaceuticals industries which they are eager to protect and, as in Djibouti, the government holds quasi-monopolies on the distribution of medical products. Wider distribution in Africa will be restricted by the large international pharmaceutical corporations which have, until recently, divided Africa into exclusive sales areas. The importance of government co-operation is underlined by the reluctance of the Djibouti government to allow private sector distribution of medical products. A foreign owned company, the Société Industrielle Canado-Djiboutienne de Produits de Sante, which aims to distribute imported medical products, applied for exemptions under the Investment Code at the same time as Société Djibouto-Pharma, but a decision on its application was postponed pending the agreement of the Ministry of Health.

Assembly of electrical appliances

In 1987 the Société Wang-Djibouti, a company that currently imports, installs and maintains computers and telex machines, put forward a proposal to set up an assembly plant in Djibouti. The company anticipates an output of 1,000 micro processors and 500 telex machines per year. The planned investment is DF115.8 million and the work force would consist of 23 persons, two of whom would be expatriates. The commission's decision was postponed pending a review by the Ministry of Industry.

Several other importers of electrical goods have shown interest in the development of an assembly plant. The market for electrical appliances is certainly growing in Djibouti and was valued at DF4,674 million in 1985. Importers are also eager to take advantage of the developing market in Ethiopia where the government has declared its policy to increase the computerization of the administration over the next five years.

Fish processing

A feasibility study for a fish processing plant, funded by AIDO was completed by IDACAS in 1986. The study envisaged a freezing plant with a storage capacity of 200 tonnes funded by an investment of DF213 million. The project responds to Djibouti's increasing fish catch, the lack of preservation facilities and the slow growth of domestic demand which will force the Fishing Co-operative to look to overseas markets. At present growth rates the catch will increase to 1,000 tonnes per year in 1990 and 4,280 tonnes by the end of the century. Domestic demand will not keep pace. At current growth rates domestic consumption will have risen from 340 tonnes in 1985 to 1,885 tonnes in 1980. According to these projections surplus production will increase from 40 tonnes in 1985 to 136 tonnes in 1990 and 2,295 tonnes in the year 2000. If the industry is to reach its full potential processing and storage facilities will have to be introduced for domestic and export sales.

The IDACAS survey estimated that the initial investment could be recuperated within six to seven years of operation. These returns are unlikely to attract a private investor in Djibouti, however a public or mixed-capital enterprise should be considered and measures taken to initiate

the project. The forecasts of surplus production and estimated potential catch of 7,000 tonnes per year may be sufficient to support other means of fish preservation - canning, drying or salting - and these options merit a detailed economic study with a view to exports in neighbouring countries.

Tannery

A tannery project was put forward at the 1983 Donors' Conference based on a feasibility study prepared by the Société Européenne des Peaux in 1980. The study suggested that a wet-blue tannery with an production capacity of 500,000 skins per year could be profitable. In 1985 a Swedish company, Glacelader, intended to build and manage a tannery plant and market its products in partnership with the government. It undertook to provide 30 per cent of the finance and loans of DF180 million and DF137 million were arranged with the OPEC Fund and the Swedish Government. The company requested that the government select and prepare a site for the company and provide tax relief under the investment code. After numerous administrative delays the project was abandoned by the promoter.

The project remains attractive as a means of adding value to skins that are currently exported unprocessed and providing a linkage between the agricultural and industrial sectors. The viability of the project should be re-examined and a promoter sought.

The exploitation and refinery of salt (Lake Assal)

In 1969 Mitsubishi Shoji Kaisha commissioned a financial and technical study of a salt mine at Lake Assal. The study revealed that the project could compete with an alternative site examined at Exmouth Bay, Australia, even though well over half the initial investment of \$13 million (at 1969 prices) would have to be spent on a transport link from the lake to the sea and a terminal at the coast. In the end Mitsubishi opted for the Australian site, encouraged by large government incentives, and reluctant to undertake large investments while the market price for salt was relatively low.

The project was reviewed by the Technical Advisor at to the Ministry of Agriculture in 1979, who estimated that, dependent on the market price of salt, the project could still be economically feasible. Then, in 1986 a local promoter, the Société Djiboutienne d'Exploitation des Sels du Lac Assal requested finance for a feasibility study from the Ministry of Industry. The present status of the enquiry is not known.

Exploitation and refinery of marine salt

The Compagnie Salines du Midi et de Djibouti which produced and exported salt by the evaporation of sea water ceased operations in 1957. In 1985 a local company, the Compagnie de l'Exploitation de Sel de Djibouti, proposed to revive the industry. It received provisional permission to develop 11 hectares south of the Boulaoz Industrial Zone for salt flats. The promoters proposed to produce 2,000 tonnes for sale within Djibouti and export to Ethiopia, Uganda, Burundi and Rwanda. A final decision was dependent on a feasibility study. As yet, however, no feasibility has been produced.

Cement plant

A cement factory was proposed at the 1983 Donor's Conference for a site at Ali Sabieh near to substantial limestone deposits. An output of 66,000 tonnes per year was foreseen for sale on the domestic market, though

this was well over double the volume of cement imports at the time, and export to Saudi Arabia. Polysius, a French company, completed a technical feasibility study in 1984. This indicated that a modular cement factory would cost \$25 million, giving a cost per unit of cement produced approximately equal to that of the European factories with outputs of 300,000 tonnes per year and above. The construction of a power station on site would, however, considerably increase the capital costs.

The project was eventually abandoned after a market study, commissioned by the Austrian government, who had promised capital funding, estimated that the local market was only 40,000 tonnes per year and that this might decrease as construction tailed off. In 1985 only 29,000 tonnes of cement were imported. The completion of the Berbera cement works, with a capacity of 200,000 tonnes, across the border in Somalia in 1986 undermines any plans to re-open the project since Djibouti is, effectively, within its market area.

Brick factory

A brick factory, with an annual production capacity of 10,700 tonnes, sufficient for the construction of 250 villas per year, was also proposed at the 1983 Donor's Conference. The project envisaged a fully mechanized plant, at Petit Bara (60 km from the capital), with its own 250 kVA power generator, at an estimated cost of DF275 million. The World Bank doubted the viability of the project - the volume of production anticipated was at least double market demand at the time and, with the decline in the construction sector, about four times present demand - and it received no offers of funding. A small artisanal brick factory was established in 1986 and this has been successful.

Construction materials and diatomites

The potential for the development of diatomites and construction materials is discussed in Section 5.2. A recent project for the construction of an oil refinery, currently at the stage of a feasibility study, raises hopes that these materials will be exploited.

Animal salt licks

A feasibility study for a factory producing animal salt licks has been completed and the project has been approved by the Investment Code of 1984, but the government has been unable to find a private promoter.

Fertilizers and pesticides

Funding for a feasibility study on a small fertilizer and pesticide manufacturing plant was requested by the government in 1982 as a means of linking the industrial and agricultural sectors. However, Djibouti has neither the expertise nor the raw materials needed to develop such a plant. Furthermore, the small size of the local market would force the plant to find a regional market to achieve economies of scale that would allow it to compete with world producers. As yet no feasibility study has been undertaken.

Production of compost from urban waste

Proposed by a UNIDO mission in 1982, the project addresses the problem faced by Djibouti's agricultural sector and specifically identified by the Economic and Social Orientation Law of 1983 (Article 47): shortage of organic composts. The project has not yet attracted funding.

Railway rolling stock workshop

In 1986 a UNIDO mission suggested that rolling stock for the Chemin de Fer Djibouto-Ethiopien (CDF) could be manufactured in Djibouti and the surplus capacity could be used to supply railways elsewhere in East Africa - such as the proposed Addis Ababa-Assab line. At present the CDF workshops are based at Dire Dawa in Ethiopia and the management hopes to move these to Djibouti, if an agreement can be reached with Ethiopia, but has no plans to produce its own rolling stock. Current capacity is judged adequate for the foreseeable future and several new engines have recently been put in service as part of an aid package agreed with the EC and Italy.

4. INDUSTRIAL DEVELOPMENT STRATEGIES, PLANS AND INSTITUTIONS

4.1. Policy orientation

The development strategy

The Economic and Social Development Law promulgated in 1982 (Law No.251/AN/82) was the first explicit statement of Djibouti's development strategies since independence, with priorities focussing on the following for the period 1983-1989:

- development of Djibouti as a major international maritime centre;
- fight against poverty among the urban and rural population;
- reduction of Djibouti's dependence on imported foodstuffs;
- industrialization; and
- reduction of Djibouti's dependence on imported energy.

The strategy emphasizes the development of the port and communications facilities, which formed the backbone of the economy in the pre-independence period, and implies that, through modernization, they can continue to fulfil the leading role. At the same time, the government seeks economic diversification, both to generate new employment opportunities and to take advantage of the available human and natural resources. In each of the sectoral development strategies a reduction in the dependence on imports comes high on the list of priorities underlining the government's determination to achieve economic as well as political independence. The guiding concept for development is, however, clearly identified as social welfare (Article 20): the satisfaction of the basic needs of the population and the correction of regional and sectoral imbalances.

As in the pre-independence period, the private sector is the tool of development. The government has retained the liberal trade, fiscal and investment policies of its predecessor and relegates the role of the State to "guardian of the public interest" (Article 5). Private investment is encouraged by the freedom to repatriate profits through the unrestricted conversion of the Djibouti franc and, since 1984, generous tax concessions under the Investment Code. The State will, however, intervene where it considers the public interest under threat (Article 9). Labour legislation strictly enforces the minimum wage and regulates the quality of the work environment. The State will also intervene on environmental issues. Furthermore, whilst adhering to the principle of free trade, the government intervenes to regulate the price of basic foodstuffs and will, if necessary, protect "infant industries" during the startup period with surtaxes on competitive imports.

In the absence of suitable private promoters the State will undertake the development and management of commercial as well as infrastructural development projects. The association of private and public capital in these projects, through mixed stock enterprises and management and commercial concessions, is encouraged as a means of ensuring the rational and profitable use of resources (Article 8). Relations between the private and public sectors in these joint enterprises are defined by contract.

During the first four years of independence the government's investment programme concentrated on the development of infrastructure leaving commercial development to the private sector - only one industrial project, the water

bottling plant, received government finance. In November 1983 the document presented to the Donors' Conference, giving details of the investment programme for 1984 to 1989, broadened the field of public investment but the priority remained infrastructural development (Table 4.1). The document proposed an ambitious investment programme of \$482 million, \$20 million of which would be financed out of the national budget, for a "shopping list" of over one hundred projects. At the time of the Conference funds or promises of funds totalling \$171 million had already been received and further external assistance to the tune of \$311 million was requested.

Table 4.1: Sectoral distribution of investment funds presented to the Donors' Conference, 1983
(US\$ million, 1983 prices).

	New projects	Total investment	Per cent of total
Water	7.8	8.1	1.7
Agriculture and forestry	5.8	7.3	1.5
Stockraising and fishing	21.1	23.4	4.9
Energy and research	32.8	71.4	14.9
Manufacturing and industry	51.1	53.2	11.0
Tourism	3.2	6.0	1.2
Transport	63.5	145.0	30.0
Telecommunications	16.9	26.0	5.4
Urban development	34.8	66.5	13.8
Education, youth and sport	63.8	64.2	13.3
Health	9.9	9.9	2.2
Total	310.7	481.8	100.0

Source: Conférence de Donateurs, Volume II, Programme d'Investissements et Recueil de Projects, pp. 33-39.

Shortly after the Conference a World Bank mission reviewed the Development Programme and recommended that the scale of the investment should be reduced to \$390 million in the interests of the country's overall financial stability. Their revised total would be financed with the aid of \$16 million in medium- and long-term loans and \$194 million in grants. The mission identified a list of nine projects, with an estimated cost of \$179 million, through which the cost reduction could be achieved. This list included two industrial projects: the brick factory and the cement plant. Details of the cost reduction depended, ultimately, on a detailed re-examination of the economic and technical feasibility of these projects and their costings. In practice the investment programme was cut across the board as the response to the Conference was disappointing. The government has carried out the investment piecemeal, proceeding with those projects that received external funding.

At present a new Economic and Social Orientation Law, setting out the priorities for the 1989-1994 period, is being prepared together with a new "shopping list". These documents are unlikely to change the priorities of the government's development strategy significantly and will build on the achievements of the first investment programme. However, in view of the limited success of the 1983 "shopping list" for industrial projects, it may be hoped that industry will assume a more prominent place in the 1989-1994 programme.

The industrial development strategy

The Economic and Social Orientation Law identifies four goals of industrialization as (Article 53):

- a) training of nationals in the techniques necessary for industrial development;
- b) reduction of dependence on imported manufactured goods by the valorization of imports;
- c) valorization of natural resources; and
- d) development of an international market for local products.

To achieve these goals, Article 54 states the government's preference for small-scale projects which produce a high value added, integrate with existing industries and other sectors of the economy, utilize the techniques mastered by nationals and encourage the upstream and downstream development of linkages and skills. These developments are to take place within a competitive environment and to be directed towards sectors where Djibouti can hold a comparative advantage so that "the economy can occupy a long lasting and profitable place in the international division of labour" (Article 59).

The private sector was to be the driving force of industrialization, encouraged by the State through the Investment Code and advised by the feasibility studies prepared by the Ministry of Industry which are freely available to promoters. This private enterprise policy is underlined by the document presented to the 1983 Donors' Conference which put forward six new industrial enterprise projects. Of these three would be managed by private shareholders and three would be managed by mixed private and public companies. Only in the case of the cement factory, the largest and most ambitious project, was State ownership and management considered an option.

The projects put forward to the Donors' Conference by the Ministry of Industry (Table 4.2.) were all aimed at meeting local market demand through import substitution and, in the case of the brick factory and cement plant, developing local resources. None were directed primarily at an export market.

A further DF100 million was requested for studies on the development of an industrial estate. Two other projects, providing upstream and downstream linkages to the agricultural sector - the Animal Feed Factory (DF460 million) and a tannery (DF700 million) - were to be managed by the Ministry of Agriculture in liaison with the Ministry of Industry.

**Table 4.2: Industrial projects presented to the 1983 Donors' Conference
(DF million)**

	<u>New projects</u>		Total investment
	External funding	Total investment	
Milk factory			900
Printing press			360
Wood processing plant ^{a/}	195	195	195
Paper processing plant ^{a/}	235	290	290
Pasta and biscuit factory ^{a/}	200	200	200
Soap factory ^{a/}	595	625	625
Brick works ^{a/}	275	350	350
Cement factory ^{a/}	7,056	7,430	7,430
Total	8,556	9,090	10,350

Source: Conférence de Donateurs, Volume II, Programme d'Investissements et Recueil de Projects, pp. 149-173.

a/ New projects.

Industry's share of the development programme - only 11.9 per cent of the total investment proposed - was disappointing and reflects the government's priority of infrastructural development and the promotion of Djibouti as an international commercial centre. While no complete statistics are available, it is clear that industry's share of the funds actually disbursed was even smaller. Only one project, the Milk Factory, received finance and this had been agreed before the Conference. The Paper Processing plant received technical assistance from FAC but the capital was provided by private shareholders. The Cement Factory project attracted interest from the Austrian and Iraqi governments but was abandoned after a discouraging market study. None of the other projects have been implemented. The success of the investment programme can be judged in terms of employment: less than a sixth of the 630 jobs anticipated from the investments have actually been created.

The poor response to the proposed projects may be explained, in part, by the lower than expected funding given by donors to the programme as a whole. But donors were also discouraged by the inadequate preparation of the project outlines: only one of the new industrial enterprises proposed had undergone a thorough market and feasibility study. The World Bank review of the investment programme identified both the cement factory and the brick works as risky and, whilst admitting that they lacked the technical expertise for a detailed study, advised that the projects should be removed from the list. The experience of this conference underlines the importance of well prepared and realistic pre-feasibility studies. These should be a priority of the Ministry of Industry before the next Donors' Conference.

A feature of the industrial projects presented to the Donors' Conference is the scale of the investment anticipated: DF10,350 million in total with an average of DF1,294 million per enterprise and DF16,429 million per job created, DF417 million and DF10,069 million respectively if the cement factory is excluded. Furthermore these projects would be heavily dependent on imported technology, expertise and external finance. For these reasons, a recent report by the Ministry of Industry has criticized the policy of development as "replacing one form of dependence with another"^{1/}. The report goes on to outline a policy of auto-development in which the industrialization would be carried out by the local private sector through the promotion of small-scale enterprise. These enterprises, the report argues, are better suited to the needs of the local market, develop the management and technical skills of the local community and are more efficient at generating employment per unit of capital invested. Import substitution and the development of a regional market are still seen as the most suitable directions for development though the Ministry advised the provision of facilities and institutional support for the local small-scale businesses to help them achieve these goals besides the large enterprises supported by external funding, whether provided by donors or private capital. Unfortunately, the existing institutions are ill-prepared for such a role.

4.2. Institutional framework for industrial development

Central planning and inter-ministerial co-ordination

A Directorate of Planning was attached to the President's Office until 1987. It was charged with the following responsibilities:

1. Co-ordinating the activities and investments of private and public sector enterprises.
2. Preparing economic studies of projects proposed by the specialist Ministries and by the private sector through the Investment Code.
3. Encouraging national economic and social integration by combating the process and consequence of the growth of Djibouti City.
4. Promoting and increase in national production by balancing the resources available to and the charges levied on different sectors of the economy.

In practice, however, the directorate played little part in the conception, co-ordination and implementation of the government's development strategy. These duties devolved on the Council of Ministers. Indeed, when the government prepared the documents for submission to the 1983 Donors' Conference, the President assigned the task to a working group of four Djibouti officials and two expatriates in which the Directorate of Planning was not represented. Consequently, the Directorate of Planning took no part in the formulation of the government's development programme for the period 1983-1989. This has hindered the co-ordination of the ministerial development strategies; a task made no easier by the absence of institutionalized linkages and information flows between government departments and the unclear, and, at times, conflicting, division of responsibilities. The Ministry of Industry, for instance, has played little part in the construction of the Animal Feed Factory which has been supervised by the Ministry of Agriculture.

^{1/} Ministère de l'Industrie, Service du Développement Industriel, Ali Ahmed Ali, Bilan de la Décennie, 1977-1987, 31 December 1986, pp.10-17.

In 1987 the responsibility for planning and the co-ordination of sectoral development strategies was transferred to the Prime Minister's office. It is too early to assess the effectiveness of the new arrangements. However, consultation with government officials and the donor organizations reveals a body of opinion in favour of strengthening the planning authority and its development into an effective co-ordinating body.

Industrial Development Service

Under the provisions of law No.37/AN/83 the Industrial Development Service (Service du Développement Industriel), a department of the Ministry of Industry, was set up to promote investment in the industrial sector by:

- a) identifying and studying the feasibility of industrial projects;
- b) counselling private investors to assist the implementation of their projects;
- c) assessing projects put forward to the Investment Code Commission by private promoters;
- d) commissioning specialist consultants and ordering equipment for public enterprises and public companies in which the State holds a majority share. It should also oversee the installation of plant in these companies and liaise with private shareholders; and
- e) co-ordinating with the Ministry of Agriculture in the development of agro-industrial projects and maintain close contact with other government departments.

The Service has too few trained and experienced staff - only one qualified economist - to carry out the full range of its responsibilities. It is fully occupied attending shareholders and management meetings of the two public enterprises, participating in the Investment Code Commission and receiving private promoters from abroad. It has yet to carry out a full feasibility study, although eight studies have been commissioned from consultants. There is little time for co-ordination with other government departments.

To assist the Service in the promotion of private enterprise, UNIDO has agreed to provide technical assistance for a period of two years (DJI/26/014). An expert and two UN volunteers will develop a procedure for the evaluation of industrial projects, participate in the recruitment of staff, undertake market studies and review national resources in order to identify potential areas for industrial development. The technical assistants will train Ministry staff in the methods of project evaluation and realization.

The International Chamber of Commerce and Industry of Djibouti

The Chamber of Commerce is a public organization which, following the provisions of Law No.27/28 of 1978, comprises a plenary assembly of 36 members (24 titular members elected every three years by the registered members of the Chamber, 8 members appointed by the Chamber's Executive board and four appointed by the government) and an executive board comprising a President, three Vice-Presidents, a Treasurer and two Secretaries elected by the Plenary Assembly. A budget is prepared by the executive board, voted on by the Plenary assembly and then submitted to the specialist Ministries and the Council of Ministers for approval.

The Chamber of Commerce provides a bridge between the government and the business community. Members of the Chamber sit on ten administrative boards, including those of the public enterprises and the port, and ten national commissions, including that of the Investment Code. The Chamber recommends changes to and precisions of legislation to aid businessmen in the conduct of their affairs. It mediates between businessmen, the government and employees and advises businessmen on their statutory obligations and relationships with government departments.

An information service provides details of suppliers, foreign markets and enterprises and a bimonthly publication contains details of new legislation and news of contracts and investment opportunities. The Chamber may also give advice on management and business life in Djibouti and provides training through occasional seminars. At the same time the Chamber promotes Djibouti abroad through its links with Chambers of Commerce abroad and publicity.

These services are well managed and, through its own initiative, are gradually being extended in the fields of information and training. Unfortunately, businessmen are poorly informed and reluctant to take advantage of the Chamber's facilities which are not exploited to their full potential.

The Investment Code

The Investment Code (Code des Investissements), promulgated as Law No.88 in 1984, is the principal instrument for the promotion of private investment. The code covers developments in the fields agriculture, livestock and fishing, tourism and crafts, industry, energy and mining, transport and financial services which might promote investment. It offers the following tax exemptions for new investments over the threshold of DF15 million in agriculture, livestock rearing, fishing and crafts and DF30 million in other sectors:

- a) exemption from the trading licence fees for up to five years;
- b) exemptions from import licence restrictions and from internal consumption taxes on imports necessary for the establishment of the investment; and
- c) exemption from the internal consumption tax on imported raw materials during the first three years of operations

Larger investments, those over DF100 million, or those creating more than fifty permanent jobs, qualify for additional benefits under Regime B:

- a) exemption from trading licence fees for up to eight years;
- b) exemption from real estate levy on built up properties for up to ten years;
- c) exemption from taxes on the industrial and commercial profits of individuals and taxes on corporate profits for up to eight years; and
- d) exemption from registration fees, estate dues and taxes on building permits.

These are generous incentives. Unfortunately, in the absence of investment statistics for the periods before and after the introduction of the Investment Code, or even a complete list of companies that have received tax concessions under the Code, it is impossible to assess its impact on investment. Tax payments are, however, a relatively small component of total company costs and so concessions are unlikely to be a deciding factor in

attracting investors from abroad or initiating investment by domestic promoters. Nevertheless, in the case of small companies at least, tax concessions can help during the difficult first few years when wastage is particularly high, largely by reducing the loss of working capital.

Two weaknesses can be identified in the present structure of the Investment Code. Firstly, it is biased heavily towards the promotion of large industrial enterprises in terms of the additional incentives it provides under Regime B. Indeed, by stipulating high investment thresholds - DF15 million (\$85,000) for investments in agriculture, livestock, fisheries and crafts and DF30 million (\$170,000) for other activities - the Investment Code effectively excludes small businesses. This is regrettable because small businesses can provide an important source of employment, a training ground for entrepreneurs and are often more responsive to the local market than large industrial plants. By lowering, or eliminating, the investment threshold the government could extend the incentives and assistance offered by the Investment Code to the small business sector. However, this sector is potentially far larger than that medium- to large-scale business sector accommodated under the present law and has peculiar legal, economic and technical characteristics. Therefore, its needs could be met more efficiently by a separate code managed by a specialist committee.

Secondly, the Investment Code has been criticized by promoters as a bureaucratic obstacle to investment. According to the procedure outlined by the legislation, promoters should present an application - giving details of the legal form of the company, the purpose and activity of the enterprise, the level and nature of the investment, market and feasibility studies, and identifying the benefits requested - to the Secretariat of the Approval Commission (Commission d'Agrement au Code des Investissements). The documents are then evaluated by the commission and its recommendations are passed on to the Council of Ministers which then promulgates the concessions by decree. A study of the minutes of the Approval Commission and discussion with promoters, however, indicate that the procedures actually followed are more cumbersome than those foreseen by the Code.

Applications are frequently examined by the relevant technical Ministry before being sent on to the Commission. This is often a cause of delays. Having been passed by the Commission the application is then examined by the Directorate of Planning and the Ministries of Finance and Commerce, each of which has the power to veto the project. Finally, the application is passed on to the Council of Ministers. The Code does not fix a timetable for the transmission of documents and the review of each case. Furthermore, both the Secretariat for the Commission and the eleven members of the Commission hold numerous other responsibilities beside management of the Code. Consequently meetings are irregular and infrequent. Applications have taken up to two and a half years to process. These delays discourage investors and, in several cases, have led to projects being abandoned. Moreover, within the constraints of a busy timetable, the Commission cannot examine the financial, technical and economic feasibility of the projects thoroughly. Besides, the inadequate preparation of briefs by promoters makes serious analysis of the projects difficult.

A return to the procedure outlined by the decree would speed up the process of application, so too would the introduction of clauses timetabling the progress of an application and the development of a Secretariat responsible solely for the management of the Investment Code.

The Djibouti Development Fund

The Djibouti Development Fund (Caisse du Développement de Djibouti (CDD)) was established by law No.242/AN/82 and began operations in 1983. Its capital totals DF500 million, 51 per cent of which is held by the State, 14 per cent by the Caisse Centrale de Coopération Economique (CCCE), 14 per cent by the European Investment Bank (EIB) and 28 per cent by local commercial banks. In April 1985 the Fund received two lines of credit of DF150 million from the Caisse de Prestations Sociales (CPS) and the Service Medical Inter-Enterprise (SMI). In 1986, another line of credit of DF510 million was granted by the CCCE. The Fund is supervised by an Administrative Council on which the State holds five seats, the EIB and CCCE one seat each and the commercial banks two seats.

The fund may finance projects in any sector of the economy but its participation must be less than 15 per cent of its total capital and 75 per cent of the total investment in the project. Only medium and long term loans are granted, with a maximum duration of twelve years for the industrial sector and an interest rate of 7 per cent. This compares favourably with the 18 per cent offered by commercial banks.

Table 4.3: Sectoral distribution of credits accorded by the Djibouti Development Fund, 1983-1987
(DF million)

Sector	1983	1984	1985	1986	1987	Total	Per cent
Agriculture	16.4	51.6	11.3	82.9	21.2	183.4	14.8
Commerce	0.0	21.0	47.0	42.6	87.5	198.1	16.0
Industry	0.0	81.0	16.0	85.0	79.4	261.4	21.1
Tourism	0.0	0.0	0.0	0.0	84.1	84.1	6.8
Housing	23.9	48.5	191.5	89.0	1.5	355.6	28.7
Services	15.0	27.5	25.0	0.0	90.0	157.5	12.7
Total	55.3	229.6	291.0	299.5	363.8	1240.3	100.0

Source: Djibouti Development Fund.

At present the fund lacks sufficient capital to meet all the requests for loans - estimated at DF650 million in 1987. The vast majority of these requests are for housing, and it is this sector that accounts for the largest share of loans granted between 1983 and 1987 (28.7 per cent). Three quarters of the loans for housing have been granted out of the lines of credit from the CPS and SMI. By early 1987 these funds were almost exhausted and the Fund temporarily suspended granting loans for housing. Loans to the industrial sector during this period amounted to DF261.4 million, 21.1 per cent of the total and more than to any other productive sector. The average value of these loans was DF20.1 million, higher than for any other sector but tourism. On the other hand, the proportion of long term loans to the industrial sector (47.8 per cent) was lower than in any other sector but commerce.

Table 4.4: Sectoral distribution of loans accorded by the Djibouti Development Fund, 1983-1987

Sector	1983	1984	1985	1986	1987	Total	Per cent
Agriculture	3	9	2	12	8	34	17.0
Commerce	0	3	4	4	11	24	12.0
Industry	0	2	3	5	3	13	6.5
Tourism	0	0	0	0	7	7	3.5
Housing	9	18	63	25	1	116	58.0
Services	1	1	1	0	3	6	3.0
Total	13	33	73	46	35	200	100.0

Source: Djibouti Development Fund.

Creditors are concentrated geographically in Djibouti City. However, industrial projects have been financed outside the capital: notably an ice factory at Tadjourah and bakeries at Dikhil and Obock. A loan for a marble cutting and polishing enterprise at Ali Sabieh is currently being considered.

The Fund does not attempt to identify or encourage investors, rather it awaits applications and then assesses their commercial viability in much the same way as a commercial bank. Few promoters in the artisanal sector are aware of the facilities provided by the Fund while others are discouraged by the need to provide 25 per cent of the funding for their project. Consequently, the number of applications from small businesses is disappointing. What is more, few of the projects presented are supported by detailed economic, financial and technical feasibility studies and the promoters often lack the skills necessary to develop their enterprise. Many of the applications have to be rejected.

A sectoral credit policy, giving priority to small businesses and investments in the artisanal and industrial sector, has been suggested as means of increasing investment in these sectors^{1/}. However, such a policy is a potential strait-jacket for the banking system. Far better is to retain viability and profitability as the criteria for the selection of credit-worthy enterprises whilst encouraging promoters in these fields through publicity and existing promotional institutions. At the same time the hurdle of personal capital may be crossed by helping to arrange loans at advantageous rates of interest through the commercial banking system.

At the end of 1987 outstanding payments amounted to DF48.3 million, 6 per cent of total credits. The management considers this level unreasonable and hopes to reduce it to 2 per cent. If the fund is to attract further lines of credit from institutions such as the CPS and SMI credit security will have to be improved. This reinforces the need for rigorous testing of the financial viability of the projects presented.

^{1/} Interviews with Ministry of Industry staff.

The Free Zone

The Free Zone (Zone Franche) was established by Decree No.71-952 in July 1971. This decree was replaced by Ordinance No.80-807^{1/} in 1980 which defines the advantages accorded to Free Zone companies as:

- a) exemption from all customs duties and taxes;
- b) free transfer of all revenues from capital invested;
- c) distribution of profits without taxation; and
- d) opportunity to open bank accounts in Djibouti or any other country.

Situated adjacent to the Port, the Free Zone is managed by the Port Authorities. It covers 17 hectares and is divided into 31 lots of 3,500 sq m. Rental charges are low, DF5,000 per m² per year, and these may be negotiated with the Port authorities according to the needs of each enterprise. Electricity, water and telephone services and the maintenance of the road network and the rail link are provided by the Port Authorities but investors must cover the cost of connecting their lot to these services. Investors are authorized to build the facilities needed by their enterprise.

The intention of the Free Zone was, first and foremost, to facilitate the development of Djibouti as an international port and encourage the growth of the transit trade between Djibouti and neighbouring countries. Secondly, the Free Zone was to provide a site for chandling and bunkering enterprises servicing international shipping. Lastly, the Free Zone was, through its services and exemption from taxation, to attract processing and manufacturing industries.

The development of the Free Zone reflects these priorities. Only one industrial enterprise has been established - Djibouti Editions Diffusion - and that on the recommendation of the Ministry of Industry, another, SOPINAD, is outside the Free Zone but within the bounds of the port. Both these companies are orientated towards the domestic market. The remainder of the plots within the Free Zone are given over to warehousing.

Little attempt has been made to promote the Free Zone, seek out potential investors or undertake its day to day management. The Port Authorities are poorly equipped to carry out such responsibilities. As a result, Djibouti has missed out on the boom in Free Zone industrial development enjoyed by other ACP countries during the 1970s and 1980s. The Republic of Djibouti is a member State of Lomé III and has the opportunity to develop processing and assembly industries orientated towards the European market. Lying on the Europe-Far Eastern trade route, it is well placed to take advantage of the exclusion of Far Eastern NICs from the Lomé III convention. The stringent rules of origin imposed by Lomé III would attract downstream industrial enterprises as well as the assembly and processing industries. Djibouti is also advantageously placed, geographically and politically, in relation to the Middle East and PTA African countries.

Future development of the Free Zone as an industrial zone depends, however, on the commitment of funds and the introduction of institutional and pricing reforms. There is no room for further development on the present site.

^{1/} The Ordinance restricts installation in the Free Zone to limited companies.

Only four hectares of the Free Zone are available for developers. A project for the preparation of the remaining lots was presented to the 1983 Donors' Conference with a request for funding of DF650 million. Some finance has been provided under the terms of the Kuwait Fund for Economic Development loan for the refurbishment of the port agreed in 1988. However, an extension to present site, which is surrounded by built-up land, for the development of an Industrial Free zone is impossible. The delimitation and development of a new zone on the outskirts of Djibouti has been discussed by the Port Authorities. This would be costly. An alternative is to follow the example of Mauritius in allowing companies to register under Free Zone legislation without restricting them to a geographically defined Free Zone. While this would introduce problems of supervision, in preventing manufactured goods entering the local market without paying customs dues, it would eliminate the expense of establishing a new estate.

An institutional structure is essential for the management and promotion of the Free Zone. These responsibilities would be better conferred on an autonomous "Free Zone Association", such as found in the Caribbean Export Processing Zones, than a port authority charged with numerous other functions. Arrangements could be for a private company to manage and promote the Free Zone on behalf of the government, financed by rental charges on Free Zone sites.

However, the establishment of an Industrial Free Zone alone will not attract industrial enterprises. The experience of other Free Zones in ACP countries indicates that success depends on factor costs, in particular the cost of labour and electricity, as much as the provision of adequate infrastructure. In this area the Republic of Djibouti is disadvantaged. A possible solution is to liberalize the labour legislation and labour and electricity costs for companies established within the Free zone, whose products are directed towards an export market, as a further privilege of Free Zone membership.

The Boulaos Industrial Estate

The Boulaos Industrial Estate is situated between the airport and Djibouti City. It covers approximately 100 hectares and is divided into 218 lots. Originally owned by the Compagnie Salines du Midi the titles have, since the late 1960s, been sold to 144 landowners. Only 50 per cent of these plots have been built upon, 25 per cent have been cleared and enclosed and the remainder are still wasteland.

At present, there are only thirteen industrial, construction and public works enterprises built on the site: 2 aluminium joinery workshops, 2 building maintenance enterprises, 4 vehicle maintenance garages, 4 public works enterprises and the Boulaos Electric Power Station. These employ approximately 1,000 persons but cover only 10 per cent of the estate. The remainder of the built-up areas is occupied by warehouses and housing.

The estate is poorly maintained. Few of the proprietors repair their section of the road, as prescribed by the conditions of purchase of the lots, and the Ministry of Public Works has neglected the public roads. More important, however, is the difficulty in obtaining lots. Most of the land has been purchased by speculators who, without the means to develop the land themselves, hope to sell or lease their lot to a third party. The prices or rents they offer are often beyond the range of investors. The contractual

conditions intended to prevent the speculative holding of lots are rarely enforced. The only alternative for an investor is to cover the considerable cost of developing a plot outside the estate, paying for a road link and attachment to the water, electricity and telephone networks. Faced with these options several projects have been abandoned by their promoters.

To overcome this problem the Ministry of Industry proposed an extension to the existing industrial zone and the construction of a new zone on the road from Djibouti to Arta, at either 12 km or 20 km from the town, in 1986. While the construction of a new estate north of the city would demand considerable investment, an extension to the existing estate is both technically feasible and would probably be less expensive. A 45 hectare site of flat land is available close to the sea, less than a kilometre from the Boulaos Power Station and 1.5 kilometres from the Djibouti-Addis Ababa railway. The site is divided into 121 lots held by the State. However, their disposal is the responsibility of the State Land Commission which comprises eight representatives from various government departments but no representative from the Ministry of Industry. The commission is reluctant to release most of the site for development on the grounds that factories here might interrupt the airport's telecommunications system.

Plans for the development of the industrial estate have now been shelved. In 1986 the Ministry of Industry received funding of \$450,000 (of which \$150,000 was given as a grant) from the Islamic Development Bank to finance a feasibility study. However, advised by a UNIDO mission^{1/} that this investment would be premature before the industries that would install on estate had been identified, the Ministry of Industry has now chosen to use the funds for feasibility studies of individual enterprises within the industrial sector. The extension of the industrial estate, therefore, remains a distant objective.

4.3 Institutions proposed to assist industrial development

Following a review of existing industrial promotion procedures, a UNIDO mission^{2/} has proposed three new promotional institutions. These institutions would compliment the Industrial Development Service of the Ministry of Industry. The proposals are currently being studied by the government.

Industrial Investment Promotion Agency

The Industrial Investment Promotion Agency (Agence de Promotion des Investissements Industrielles) would welcome private investors and direct them towards existing government agencies. It would also help investors resolve the technical, economic and judicial problems they may encounter through the following services:

1/ UNIDO, Sangaré, L. and Al-Hafedh, M., Report on the Programming Mission to Djibouti, 20 July 1986, pp. 22-23.

2/ UNIDO, Lofti Chakroun, Propositions Relatives à la Promotion Industrielle, May 1988, pp. 23-27.

- a) details of the current economic and industrial environment to facilitate the preparation of market studies. A library of current statistics, a survey and guide to existing industrial enterprises and a list of feasibility studies are essential tools;
- b) assistance to promoters in the completion of administrative formalities;
- c) promotion of the Republic of Djibouti abroad to attract industrial investors; and
- d) management of the Industrial Estate and Free Zone.

The Agency and its staff would work under the Ministry of Industry in close liaison with the the Industrial Development Service. It would include representatives of other Ministries and the Chamber of Commerce and would be managed by a small multi-disciplinary team.

Centre for Administrative Services

The present administrative structure presents an obstacle to industrial development through the multiplication of autonomous departments and agencies. The administration of industrial development could be centralized so that promoters are able to complete administrative formalities at "one window". A Centre for Administrative Services (Centre de Formalités Administratives) could arrange for the authorization of specialist Ministries, follow through applications under the Investment Code and even carry out mundane but time consuming administrative tasks such as the application for residence permits. The administrative hurdles facing promoters must first be identified and then procedure for the rapid completion of administrative formalities established. To this end, the Centre should include representatives of the relevant government departments and services.

Consultative Group

In order to co-ordinate the industrial development programme with the government's overall development strategy and allow promotional institutions to retain their flexibility in response to the changing needs of industrial promoters a Consultative Group (Groupe Consultatif) could be formed bringing together the relevant government departments, the promotional services and, the promoters themselves. To facilitate the co-ordination of industrial and national development strategies the Prime Minister's Office should hold the chair at the Consultative Group's meetings. (Under decree No.87-098 the Prime Minister holds responsibility for sectoral development strategies.) Other departments and ministries that should participate are:

Ministry of Industry (Industrial Development Service)
Industrial Investment Promotion Agency
Centre for Administrative Services
Chamber of Commerce
Djibouti Development Fund
Ministry of Commerce, Transport and Tourism
Ministry of Finance and National Economy
Customs Authorities
Ministry of Labour
National Bank of Djibouti

These institutional changes would assist the private promoter. However, there is a danger that, by establishing new institutions to deal with private promoters and their problems, the government would duplicate responsibilities and, by removing contact between the administration and the private sector, side-step rather than confront and resolve existing administrative deficiencies. If the government is to establish "one window" for private promoters a single institution covering the fields of information, training, administrative formalities and promotion would be more efficient than a further proliferation of services and a dispersal of personnel. A Business Advisory Service could fulfil the multiple functions described in the above institutions besides providing training facilities and advice to local promoters. Such an institution could be incorporated into the Chamber of Commerce by extending the range of facilities that institution already provides and building on the experience of a well regarded and efficient organization. The Chamber of Commerce already has strong links and considerable influence within the administration on economic issues and fulfils the role of an intermediary between the administration and the business community. If administrative procedures are to be simplified and speeded up the initiative must, ultimately, come from within the government departments rather than attempting to by-pass administrative bottlenecks from outside.

5. RESOURCES FOR INDUSTRIAL DEVELOPMENT

5.1 Human resources

For planning purposes the government and donor organizations use estimates by DINAS which put the total population at 383,000 in 1983,^{1/} including 40,000 refugees. This corresponds with the World Bank's estimate of 380,000 for 1983 and the IMF estimate of 372,000 for 1982, both of which were based on official sources.^{2/} By 1986 the population had increased to 456,000 and, at the current annual rate of natural increase of 3.1 per cent, a population of 513,000 may be forecast for 1990 and 690,000 for the year 2000.

Projections based on rates of natural increase alone are, however, likely to underestimate the growth of Djibouti's population. If the influx of refugees and immigrants from neighbouring Ethiopia and Somalia is taken into account, the effective growth rate is considerably higher. According to the IMF, the total growth rate in the period 1977-1982 was 7.9 per cent per year - more than double the natural rate of increase. Voluntary repatriation schemes for the refugees have been more successful - nearly 20,000 Ethiopian refugees left in 1983 - but 14,000 refugees remain. Consequently, a substantial immigrant population is likely to remain a feature of the economy in the near future.^{3/}

Approximately 75 per cent of the population lives in urban areas and about two-thirds in the capital, Djibouti City. This concentration has increased markedly in recent years. The population of Djibouti City rose from 115,000 in 1972 to 195,000 in 1982, an average annual growth rate of 5.4 per cent - 2.4 per cent higher than the national growth rate due to migration from rural areas and neighbouring countries. Droughts in 1983 and 1986 accelerated the drift towards the capital. From 1983 to 1988 the population of Balbala, a shantytown suburb of Djibouti City, almost doubled from 25,000 to 40,000.

A breakdown of the age structure of the population in 1983, prepared by DINAS, indicates that 61.6 per cent of the population falls within the economically active age group of fifteen years and above. This gives a total labour force of 236,000 for 1983. Assuming that the age structure has not changed, the labour force had increased to 281,000 in 1986. The regional distribution of the economically active population is given in Table 5.1.

The inclusion of females in the labour force is justifiable since, in urban areas at least, women form an important part of the work force. The most recent statistics available, prepared by the Service de Main d'Oeuvre, show that 738 women registered for employment in 1980, compared with 2,942 men, and 610 of these found employment, virtually all of them in the service sector. None the less, female participation in the labour force remains significantly lower than that of males.

1/ The results of the 1983 census have not yet been published.

2/ A review of the various population estimates is given in Ministère de l'Education Nationale, Projet de Plan Quinquennal de Développement de l'Education, 1989-1993, February 1989.

3/ The government has stepped up border patrols and expelled illegal immigrants but the flow has shown no signs of abating.

Table 5.1: Regional distribution of the economically active population, 1983 and 1986
('000 persons)

	1983	1986
Males	121.4	144.6
of which urban	94.8	112.9
rural	26.7	31.8
Females	114.5	136.5
of which urban	86.5	103.5
rural	27.5	32.7
Males and females	236.1	281.8
of which urban	177.1	210.8
rural	59.0	70.3

Source: Based on DINAS, Annuaire Statistique, 1986, p. 15.

These estimates do not take account of those in full time education. In 1987/88, however, there were only 4,457 full time students aged fifteen or above; less than 2 per cent of the labour force.

At the present rate of natural increase, a labour force of 316,000 may be projected for 1990 and 425,000 for the year 2000. If one considers that less than ten per cent of the labour force is currently in registered employment, there is clearly no shortage of manpower. Indeed, one of the most pressing problems the government faces is to generate sufficient employment opportunities for the existing labour force. At the same time, economic development is constrained by the shortage of skilled labour. To overcome this problem the government has identified the development of human resources as a priority in its economic strategy.

Training

Levels of educational achievement are extremely low among the generations born before independence. According to a survey conducted by DINAS, fewer than 10 per cent of those older than forty attended primary school and fewer than twenty per cent are literate. The lack of basic education affects every sector of the economy; even in the banking sector 40 per cent of staff cannot read or write.

The development of human resources is regarded as a priority by the government and since independence considerable progress has been made in the field of education. However, facilities for technical and professional education are limited. At present there are three public technical schools in Djibouti. The Lycée d'Enseignement Professionnelle (LEP) in Djibouti City takes pupils up to the age of eighteen from primary schools and the first stage of secondary education. In 1987-1988 there were 323 students following three-year technical courses in electrical engineering, painting, mechanics,

metal working, carpentry, car mechanics, plumbing and masonry for the Certificat d'Aptitude Professionnelle (CAP), and another 11 studying for the Brevet d'Etudes Professionnelles (BEP). A further 212 students were studying for the CAP in secretarial skills and accountancy, and 149 for the BEP in administration, computing, accountancy and secretarial skills.

Table 5.2: Education and literacy, 1987
(Per cent of population in age group)

	Age group			Total
	20-30	30-40	40 and older	
Illiterate	57.1	65.7	82.7	66.3
Able to read and write	3.6	5.3	5.3	4.5
Level of education				
Primary	16.1	11.9	6.0	12.3
Secondary	14.3	9.9	3.7	10.3
Professional	5.9	1.9	1.4	3.8
Higher	3.0	5.3	0.9	2.8

Source: DINAS, unpublished Survey, 1987.

The Centre de Formation pour Adultes (CFPA), based in Djibouti City with courses in plumbing available at Tadjourah, is under the authority of the Ministry of Labour. It provides training for those above sixteen years of age. A large proportion of the students failed the secondary school entrance examination and almost 70 per cent come from families classified as 'underprivileged'. In contrast to the LEP training the courses have minimal academic content. There were 164 students following two to three year technical courses in 1987-1988, 52 studying accountancy and secretarial skills and 27 studying hotel management.

The third institution is the Association Nationale pour la Protection de la Jeunesse (ANJ), based in Djibouti City. Originally established in 1960 to promote literacy among the poor, the ANJ now provides technical training in carpentry, welding, masonry, electrical engineering and car mechanics. There were 155 students in 1987/88, most of whom came from the poorest families or orphanages. Students generally pass one year of their course on placement.

Outside the public institutions there are three training schools at Tadjourah, Djibouti City and Ali Sabieh. In 1987/88 these provided technical courses for 33 students. A further 60 students followed technical courses in the Federal Republic of Germany, Morocco, Tunisia and Algeria in 1987/88. These students received grants from the State or the host government.

Four principal weaknesses of the present system of technical training may be identified. Firstly, applications for places at the LEP and CFPA by far exceed the number available. In 1987 only 236 of the 2,512 candidates for places at the LEP were admitted. The number of students receiving technical education is, moreover, insufficient to meet the demand. The Ministry of Education estimates that the private sector requires 600 technical and

managerial staff per year, the public sector 106 and the para-public sector 193, if the present dependence on expatriates is to be reduced. On the basis of these estimates a new Lycée Industriel et Commercial for 900 pupils has been proposed, together with Centres de Formation Pre-Professionnelle (CFPP) attached to selected primary schools.^{1/} Another technical school for artisans has been suggested, with the intention of providing training for small businesses.^{2/} The government aims to increase the number of primary school pupils going on the technical education in secondary schools from the present level of 45 per cent.

Secondly, technical training facilities are concentrated in Djibouti City depriving those in rural areas of educational opportunities and attracting youths to the city. The government's plan to develop CFPP's associated with regional primary schools together with regional ANJ training centres will lead to a more even spread of technical training facilities at the lowest level. In the long term, more advanced technical training facilities in the regional centres merit consideration.

Thirdly, the existing educational system does not provide students of suitable calibre for the needs of industry and the commercial sector. Most enterprises prefer to employ expatriate technical staff - despite costs estimated at twenty times higher than employing local staff - relegating Djiboutians to subordinate roles. Furthermore, students from the LEP and CFPA have difficulty finding employment despite the shortage of skilled staff. Private sector employers prefer to train technicians themselves for particular tasks. Of the 546 students leaving LEP, 249 of whom had received a diploma, from 1983 and 1985 only 48 per cent had found employment by 1986. For those leaving the CFPA with technical qualifications the proportion is slightly higher at 60 per cent.

To some extent this problem can be overcome by developing courses that meet the specific requirements of industry. The ANJ has been particularly successful in this respect by placing students during their course. These students have little difficulty finding employment. However, the industrial and commercial sectors need more than just technicians. Employers complain of the low level of basic and general scientific education and the consequent inflexibility of technical staff. Engineers with a broad training, at university, or comparable level, are needed to supervise technicians and develop and install new technology. At present, there are few Djiboutians who can fulfil this role. In 1987/88 there were only 29 students following technical science courses abroad (Table 5.3). This number needs to be increased if Djiboutians are to replace the expatriate technical staff who hold most of the senior positions within the private and public sector.

Lastly, there are few facilities for informal or formal management training. The minutes of the Investment Code Commission reveal that few entrepreneurs are able to carry out, or see the merit of, detailed market studies and cash flow forecasts. Furthermore, poor management and inadequate preparation account for most of the business failures.

1/ Ministère de l'Éducation Nationale, Etudes pour la Réalisation du Programme Pédagogique et Architectural et des Etudes Techniques en Vue de la Création du Nouveau Lycée d'Enseignement Professionnel à Djibouti, February 1988, pp. 60-379.

2/ Agence de Coopération Culturelle et Technique, Ababacar Dié, L'Artisanat en République de Djibouti pour un Plan de Développement Économique et Social, November 1987, p. 68.

At present the Chamber of Commerce provides occasional courses for the business community but these are poorly attended. What is more, there are no formal management training facilities within Djibouti and students in this field have to travel abroad. In 1987/88 there were 117 students studying management related skills on State and host government grants, but only nine studying management. Increasing the number of grants available in this field is one solution. Another is to develop formal and informal training facilities within Djibouti, providing a range of courses for full-time and occasional students.

Table 5.3: Students at university and technical institutes abroad, 1987/88
(Academic year)

Subject	Students	Per cent
<u>Sciences</u>	<u>67</u>	<u>24.6</u>
Medicine	14	5.1
Veterinary Sciences	2	0.7
Mathematics	33	12.1
<u>Technical Sciences</u>	<u>29</u>	<u>10.7</u>
Natural Sciences	18	6.6
Architecture	4	1.5
Engineering	7	2.6
Computing	1	0.4
<u>Arts</u>	<u>69</u>	<u>25.4</u>
Languages	53	19.5
Philosophy	2	0.7
Sociology	1	0.4
History	12	4.4
Geography	11	4.0
<u>Social Sciences</u>	<u>117</u>	<u>43.0</u>
Law	49	18.0
Economics	15	5.5
Accountancy	12	4.4
Management	9	3.3
Administration	20	7.4
Others	9	3.3
<u>Total</u>	<u>272</u>	<u>100.0</u>

Source: Ministère de l'Éducation Nationale, Annuaire Statistique des Boursiers Djiboutiens de l'Enseignement Supérieur et Secondaire, Année Scolaire 1987/88.

Ideally, management training could be integrated within the procedure of application to Investment Code, entrepreneurs being referred to a Business Advice Service at the time of their application for assistance and preparatory courses. The same Service could provide management and business advice during

the start up period and a range of full-time courses for managers and businessmen. A charitable organization, the Association National pour le Développement Economique et Social (ANDES), plans to establish training facilities for promoters in the industrial and artisanal fields. However, if ANDES is to provide courses and advice in the necessarily broad field of business promotion substantial funding and integration with the existing government promotional institutions are essential.

5.2 Agricultural resources

Agricultural output has increased steadily from 50 tonnes in the 1978/79 season to 1,815 tonnes in 1986/87 and the cultivated area from 50 hectares in 1976, on the eve of independence, to 383 hectares in 1987. This is a considerable achievement when viewed within the perspectives of the following constraints inhibiting agricultural expansion.

- a) Annual precipitation, at Djibouti City, averaged 187.2 mm per year between 1970 and 1986.
- b) During drought years precipitation is sometimes reduced to less than half the annual average.
- c) A shortage of water for irrigation and the high cost of exploration and exploitation.
- d) Soils have a shallow profile and a low organic content.
- e) Traditionally pastoralists, few Djiboutians have experience of or interest in agriculture.
- f) There are few trained agronomists.

However, these successes have done little to reduce Djibouti's dependence on imported foodstuffs. Tomatoes account for two-thirds of the output and the remainder are a range of fresh vegetables, yet Djibouti still imports over 8,000 tonnes of vegetables per year. Nor is there a realistic prospect of Djibouti developing a substantial agricultural sector. The cultivable area is estimated at 6,000 hectares but cultivation depends on the provision of adequate irrigation water.

In these circumstances the only means by which Djibouti can develop a food industry is by processing imported raw materials. The principal food imports, their cost and principal country of origin are set out in Annex Table A-6.

Jojoba is the only industrial crop cultivated. Cultivation began in the early 1980s but production stagnated before reaching a commercial scale. Further development demands a study of the crop's viability in the face of increasing production in other Arab States.

Livestock

Livestock rearing suffers from the same environmental constraints as agriculture. However, the traditional practices of nomadic pastoralism - followed by about 65,000 persons - allow the country to support a herd of 500,000 goats, 350,000 sheep, 50,000 camels, 40,000 cattle and 65,000 donkeys, according to 1983 estimates. These herds live under the constant threat of drought and disease. Measures have been taken to mitigate these hazards by providing emergency feed concentrates, through the Animal Feed Factory, permanent watering points and the Ministry of Agriculture also undertakes vaccination campaigns in co-ordination with neighbouring Ethiopia and Somalia. Nevertheless, droughts and epidemics, such as those of 1986, occasionally decimate the herd.

There are few linkages between the traditional subsistence pastoral sector and the modern economy. About thirty farms keeping herds of sheep, goats and cattle and the experimental dairy farm at Ambouli provide most of locally marketed livestock products. Commercialization needs to be encouraged as a means of improving the nomads' standard of living and exploiting a potential resource. Virtually all the 161,871 sheep and goats and 16,945 cattle slaughtered in Djibouti City in 1986 were imported from Ethiopia and Somalia. Equally, most of the 59,228 cattle, 9,039 sheep and goats and the 482 tonnes of skins exported in 1987 were actually re-exports from neighbouring countries. Ethiopian and Somalian herders are attracted by Djibouti's convertible currency and the easy access to the Middle Eastern markets. The volume of trade jumped markedly after exports from Somalia to Saudi Arabia were banned in 1983.

A new abattoir with capacity to produce 10,000 tonnes of meat per year, presently nearing completion, is an essential step in the development of these resources. A meat packing plant could be developed as an ancillary enterprise while the wet-blue tannery, proposed at the 1983 Donors' Conference, merits immediate implementation. At present skins are exported unprocessed.

Fisheries

Djibouti's territorial waters contain a wealth of fish resources. The potential catch of mullet, white tuna, grouper, barracuda, gilt-head and shellfish, including lobsters, is estimated at between 7,000 and 9,000 tonnes. In 1985 the fishing fleet numbered 140 vessels - mostly 8 to 10 metre barques owned by artisan fishermen. Most of these fishermen belong to the Fishing Co-operative (Coopérative de Pêche Maritime) which provides shore facilities and markets the fish. The government is reluctant to permit industrial fishing for fear of over-exploiting resources. At present, however, the catch is only a small fraction of the potential - 425 tonnes in 1987.

Production has increased steadily since independence and, at present rates, it is expected to reach 900 tonnes in 1990. Consumption has not kept pace, partly because Djiboutians are unaccustomed to eating fish and partly because of inadequate storage and distribution systems. In 1987 the co-operative sold only 328 tonnes on the local market and exported 27 tonnes leaving a surplus production of 71 tonnes. Extrapolating current trends this surplus will increase to 136 tonnes in 1990 and 2,995 tonnes in the year 2000. Clearly, if the fisheries sector is to reach its full potential processing, freezing and packaging facilities are needed. A detailed study has shown a freezing plant to be economically viable (see Section 3.3), but the project awaits a promoter.

An American promoter has also identified a potential export market for Djibouti's colourful, exotic reef fish. However, a decision on the promoters application to the Investment Code Commission in 1985 was deferred pending the Minister of Agriculture and Fisheries' assessment of the project's environmental impact. The project now appears to have been abandoned.

Forestry

Much of Djibouti has a sparse tree and bush cover. This resource is exploited as fuel, some of which is converted into charcoal, for domestic consumption. According to The Institut Supérieur d'Etudes et de Recherches

Scientifiques et Techniques' (ISERST) survey of 1983 fuel wood and charcoal account for 7.9 per cent of total energy consumption and half the energy consumed by households.

Only 6,000 hectares remain of the estimated 60,000 hectares of true forest that once covered much of the north of the country. This too is gradually being cut down for fuel wood, despite government protection. The introduction of alternative energy sources for the nomadic population and an efficient portable stove might help protect these precious reserves whilst presenting an opportunity for local artisans.

The needs of joinery and carpentry are met by imports - 1,042 tonnes of planks and 2,190 tonnes of finished and semi-finished wood in 1985.

5.3 Mineral resources

The ISERST was established in 1982 to carry out research into Djibouti's mineral and energy resources. As yet, however, no systematic survey of the country's geological resources has been undertaken. Nevertheless, a number of mineral resources that might be commercially exploitable have been discovered. At present none of these minerals are exploited industrially.

The known mineral resources may be summarized, in alphabetical order, as follows:

Clays. Large deposits of clays, formed by the decomposition of rhyolites and basalts, are found in the region of Ali Sabieh. They are of suitable quality to be used in the production of bricks and tiles. A project for the construction of an industrial brick factory was presented at the 1983 Donors' Conference but, receiving no promise of funding, has since been abandoned. The market is currently supplied by an artisanal brick factory established in 1986.

Diatomites. Diatomites are the silicified cell walls of unicellular algae of the phylum Bacillariophyta. They are inert, light, porous and clear coloured; qualities that make them ideal filters, either in their natural state or after heating to very high temperatures to remove impurities. They are also used in the production of pesticides, explosives, plastics and varnishes and as insulating material. For most industrial purposes diatomites must be pure, or at least contain little contamination from reactive elements.

Three deposits of diatomites have been found in the region of Lake Assal. At Karkerou there are two stratified deposits, one of them 5 metres thick, separated by a layer of clay and tuff. Unfortunately, the strata are contaminated by clays and interrupted by faults. Nearby, at Tikible, the deposits are less contaminated while at Dybye the strata is thought to be pure and uniform. Another deposit of diatomites has been found near Hanle.

No detailed laboratory or geological survey has been carried out to determine the quantity and quality of these reserves. Nevertheless, two Saudi Arabian companies - Rahbani Enterprises and the International Resource Development Company - have shown interest in the exploitation of the deposits around Lake Assal for use in the planned petroleum refinery. These companies are currently negotiating the terms of an agreement with the government which may give them exclusive rights.

Gypsum. A deposit of gypsum and gypsum anhydrite 20 to 30 metres thick has been found on the borders of Lake Assal. Smaller deposits have been found in the region of Ali Sabieh and in the plain of Gobaad, but these are unlikely to merit exploitation.

Gypsum is transformed into plaster by heating to remove the water of crystallization. Plaster is important in the construction industry and in the production of moulds for ceramics, iron and steel and surgery. Gypsum is also used in the manufacture of Portland cement, comprising about 4 per cent by weight of the finished product, and as a fertilizer on saline soils.

The techniques of production are well established. Consequently, the viability of exploitation will depend on the geological conditions, the size of provable reserves and on the available markets for finished products. The cement factory proposed at the 1983 Donors' Conference has already been abandoned. High energy costs would undermine the economic viability of a large industrial plant. Nevertheless, a small plaster producing plant merits consideration.

Limestone. Limestone deposits suitable for the manufacture of cement have been found at Boholaley, near Ali Sabieh. The reserves are thought to be sufficient to support a cement works producing 300 tonnes of cement per day for eighty years. Although several donors showed interest in the cement works project presented at the 1983 Donors' Conference, the project has since been abandoned following unfavourable market and technical studies.

Perlite. A natural glass formed by the rapid cooling of viscous lava, perlite is found in the volcanic massif of Egerleta near Goubet. The rock may be rendered commercially useful by crushing and then heating rapidly so that the water it contains is released and the rock expands up to twenty times its original volume. In this state the rock is porous and light and may be used as a substitute for sand, an insulating material and in filtration.

Perlite has attracted attention as a potential building material because of its insulating characteristics. Following the 1983 Donors' assistance funded by France. The government hoped that perlite might be used exported to the Middle East as well as used in local construction projects. Rahbani Enterprises and the International Resource Development Company are currently negotiating exploitation rights with the government with the intention of using perlite in the planned oil refinery. However, given the high levels of energy of consumption required for the industrial transformation of perlite, energy costs in Djibouti may be prohibitive.

Pumice. Another pyroclastic igneous rock, pumice is formed by the sudden cooling of liquid lava. It is lightweight but durable and can be used as an abrasive and in construction. Deposits of pumice are found near Ali Sabieh and in the north of the country. The feasibility of exploiting these deposits for construction materials is under study by ISERST.

Salts. Lake Assal has been exploited as a source of domestic salt for millennia, however, no attempt has been made to extract salt industrially. A salt mine was proposed by the Japanese company Mitsubishi in the late 1960s but was abandoned in favour of a site in Australia (see Section 3.3.). Deposits of salt around and under the lake are thought to be up to 60 metres thick and cover an area of 64 sq km while the lake waters, covering 52 sq km and with a maximum depth of 40 metres, contain salt concentrations of 340 g to 390 g per litre. These reserves are replenished by an estimated 6 million tonnes of salts brought down the River Awash every year.

Table 5.4 gives details of the salt composition of the lake waters. Four of these salts present commercial possibilities: Sodium Chloride, commonly used as domestic salt and in the industrial production of organochlorides; Potassium Chloride used in the manufacture of fertilizers; Magnesium Chloride in the production of magnesium metal; and Sodium Bromide for the production of bromine. The concentration of Magnesium Chloride is greater than in the American salt lakes where the salt is currently exploited commercially.

Table 5.4: Salt composition of the water of Lake Assal, 1985
(Grammes per litre)

Salt	Weight
Sodium Chloride (NaCl)	251
Potassium Chloride (KCl)	10
Sodium Bromide (NaBr)	30
Magnesium Chloride (MgCl)	48
Calcium Sulphate (CaSO ₄)	4
Silicon Oxide (SiO ₂)	traces
Total Salt Content	343

Source: Walid Sharif, UNIDO Technical Report, (RP/DJI/85/001/11-01).

These resources can be tapped by mining, as has long been practised at an artisanal level, or by the evaporation of the lake brine. Both methods merit a technical and economic feasibility study. The evaporation method has already been used to manufacture sea salt in Djibouti. A French company operated several hundred hectares of salt evaporation basins with an output, at peak production, of 70,000 tonnes per year. The enterprise was abandoned in 1953 following a fall in salt prices.

Water

The Office National des Eaux de Djibouti (ONED) estimates that the capacity of the country's aquifers, the only dependable water resource, may be as much as 50,000 cu m per day. However, the characteristics of these aquifers - their permeability, piezometry, reserves and rates of recharge - are poorly understood.

At present, Djibouti City is supplied by 29 wells situated between the city and the Somali border. Current output is about 29,000 cu m per day and increases to 30,000 cu m after rains. In 1986 consumption averaged 22,300 cu m per day. Consumption is likely to reach 40,000 cu m by 1990, at the current rate of growth of demand. Doubts have been raised about the capacity of the aquifers to support this rate of extraction. One of the advantages cited for the siting of a new industrial estate north of the city is that it will, in the long term, reduce the load on wells to the south.

Outside Djibouti City the towns of Arta, Oueah, Ali Sabieh, Obock, Dikhil and Tadjourah are supplied by local wells and have piped water supplies. In 1986 production for these towns totalled 3,060 cu m per day and consumption

2,550 cu m per day. Consumption has decreased by 18 per cent since 1983 but the downward trend now appears to have levelled off. In rural areas water has traditionally been drawn from shallow wells with both poor quality and unreliable water. Since independence 64 new rural wells have been dug and more are planned. Dependable water resources are regarded as essential for the health of the rural population and the security of the nomads' herds.

The industrial sector consumes a small part of the total production, although the water bottling plant and the milk factory figure among the largest single consumers. The tariff structure - rising from DF62 per cu m for those consuming 0-60 cu m per day to DF124 per cu m for those consuming more than 120 cu m per day - is intended to discourage wastage. It is, however, a blunt tool, penalizing large consumers in the industrial sector. Furthermore, the distribution and quality of the water resources are not ideally suited to the needs of industrial development. The lack of a sizeable aquifer in the region of Ali Sabieh, close to the limestone deposits, for instance, constitutes a major obstacle to the creation of a cement plant. Equally, the salinity of most of the aquifers, with salt contents up to 600 mg per litre, is too high for food processing. Both the milk and soft drink bottling plants have to use costly desalinization plants.

Incomplete information on water quality and reserves prevents the development of a comprehensive water use strategy encompassing domestic, industrial and agricultural consumers. Given the shortage of water reserves such a policy could be regarded as a priority.

5.4 Energy resources

Oil

Imported petroleum products are the source of almost all energy produced in Djibouti and accounted for almost 10 per cent of total imports in 1985 (see Annex Table A-7). In the past Djibouti has received some of its oil products at concessionary rates. This tends to dampen the effect of changes in oil prices. Nevertheless, while the value of oil imports as a percentage of total imports has tended to rise in recent years, as total imports have dropped the cost of oil imports have fallen slightly from the peak in 1982.

Transport is the main consumer of oil by sector, industry accounting for only 1.9 per cent of oil consumption (Table 5.5). In terms of total energy consumption by final use, industry's share stands at 2.2 per cent. Transport is, again, the largest consumer.

In 1988 two Saudi Arabian companies, Rahbani Enterprises and International Resources Development company, signed an agreement with the government to establish a limited company, the Société Arabe et International de la Raffinerie de Djibouti (SAIRD) with the task of building and operating an oil refinery in Djibouti. The refinery has a planned capacity of 100,000 barrels per day, twenty times greater than the Djibouti's daily consumption. The promoters, who are specialists in trading oil products, clearly envisage an international market. The project, which will cost up to \$40 million, is currently under review to establish its effect on Djibouti's balance of payments.

Table 5.5: Energy consumption and distribution by sector, 1986
(in '000 tonnes of petroleum equivalent)

Sector	Petroleum products	Electricity	Wood products	Total
Transformation	<u>259.0</u>	<u>19.0</u>	<u>51.0</u>	<u>329.0</u>
Charcoal ovens	-	-	51.0	51.0
Electricity	259.0	19.0	-	278.0
Utilization	<u>511.0</u>	<u>81.0</u>	<u>79.0</u>	<u>671.0</u>
Residential	51.0	28.0	79.0	158.0
Commerce and administration	2.5	32.0	-	34.5
Industry	10.0	5.0	-	15.0
Road transport	138.0	-	-	138.0
Rail transport	6.5	-	-	6.5
Sea transport	138.5	-	-	138.5
Air transport	131.0	-	-	131.0
Water pumping	1.0	3.0	-	4.0
Military	26.5	12.0	-	38.5
Other	6.0	1.0	-	7.0
Total	<u>770.0</u>	<u>100.0</u>	<u>130.0</u>	<u>1,000.0</u>

Source: DINAS, Annuaire Statistique, 1986.

SAIRD is also to undertake oil exploration. No deposits of oil have been found yet, though the discovery of small deposits in the Ogaden and the large oil fields across the Red Sea in the Yemen Arab Republic have raised hopes. The oil refinery project, however, appears to anticipate the construction of an oil pipeline from the Yemen Arab Republic and the development of Djibouti as an oil terminal, for neighbouring countries at least.

Electricity

Electricity accounted for only 12 per cent of final energy use according to the ISERST survey of 1983, rising to 16.7 per cent according a 1987 government estimate. The main producer of electricity is Electricité de Djibouti (EDD), though most industrial enterprises hold diesel generators in reserve and some enterprises are not yet attached to the grid.

Djibouti City is served by two power stations on the same site: Boulaos I with eight oil powered generators and Boulaos II with four, two of which were installed in 1988. In 1987 the installed capacity was 74.5 MW and effective capacity 62.9 MW. Capacity will increase to 85.5 MW by the end of 1988. There are smaller power stations at Tadjourah, Dikhil, Obock and Ali-Sabieh with a total capacity of 3.21 MW. Total electricity production was 173 million kWh in 1987, with a peak load of 33.4 MW in September, during the hot season.

Djibouti City's electricity consumption reached 143 million kWh in 1987, of which half was distributed at low tension (220-380V) and half at medium and high tension (20 kV). There are 19,761 consumers nation-wide, 18,182 of whom are in Djibouti City and only 436 of whom take electricity at medium or high tension. Estimates of the sectoral breakdown of electricity consumption vary considerably, but all of them indicate that industry accounts for less than 10 per cent of total electricity consumption. According to ISERST, industry and agriculture accounted for only 4.4 per cent of total consumption of EDD electricity in 1985, the service sector 48.8 per cent and domestic consumers 46.8 per cent.^{1/}

ISERST has prepared two scenarios for the growth in demand^{2/}, both of which anticipate that demand will grow fastest in the industrial and agricultural sector. The low scenario anticipates demand of 195 million kWh by 1995 and 235.6 million kWh by the year 2000, with industry and agriculture accounting for 5.5 per cent of total consumption by that date. The 'growth' scenario anticipates demand of 225 million kWh by 1995 and 309.4 million kWh by 2000, with industry and agriculture accounting for 8.5 per cent of total consumption by the end of the century.

According to these forecasts and with the demission of existing plant, further capacity will be necessary by 1992 or 1993. To accommodate this demand four developments have been suggested. Firstly, the development of geothermal resources at Lake Assal with a 20 MW or 10 MW power station. Research is underway, but, as yet, no reliable well with sufficient heat and steam back pressure has been found. A pre-feasibility study, completed in November 1987, has suggested that the costs would be lower than installing equivalent oil generated power.^{3/} Secondly, and complimentary to the development of geothermal resources, the government is considering linkage to the Ethiopian grid to provide electricity from hydro-electric power stations during the summer months - Djibouti's peak demand and the period when Ethiopia's hydro-electric capacity is highest coincide.^{4/} The viability of this proposal ultimately depends on the competitive pricing of Ethiopia's tariff compared with the domestic generating costs, since, for security reasons, Djibouti will have to install sufficient generating capacity to meet the summer peak load. Thirdly, given the limited scale of the proposed geothermal development, the EDD will have to develop further oil powered generating capacity of up to 60 MW. Lastly, the government is undertaking research on solar power generation and energy conservation.

From the point of view of industry, electricity is unlikely to be a constraint on development other than in its price. Pre-feasibility studies for both the geothermal and the linkage to the Ethiopian grid anticipate a small reduction in the tariff. However, neither of these projects have been

1/ ISERST, Plan Energétique National, 1986, pp. 42-46.

2/ Ibid.

3/ EDD, Economic Analysis of Geothermal Power Project in Djibouti, December 1987, p. 13 and Annexes.

4/ Canadian International Development Agency and Ministère Français de la Coopération, Ethiopia-Djibouti Interconnector Study, Reconnaissance Report, June 1988.

fully costed and, for the near future at least, continued dependence on oil powered electricity will prevent any significant reduction in electricity charges.

5.5 Transport and telecommunications

The government has given the development of infrastructure a high priority. Transport and communications received \$220 million of funding, almost half of the investment programme, during the first ten years of the independence.

Roads

In mid-1986 the road network comprised 281 km of paved roads, most of them radiating from the capital, and 2,624 km of unpaved roads. The north of the country was isolated, the traffic having to pass by ferry boats from Djibouti City to Tadjourah and Obock. Since the completion of the "Unity Road" between Tadjourah and Djibouti City in June 1988 communications have improved markedly. The road links with Ethiopia and Somalia are still poor, though a paved road to Loyada on the border with Somalia, and possible extensions to Berbera and Hargeisa, is currently under construction.

Railway

The railway between Djibouti Port and Addis Ababa, completed in 1917, is in a poor state of repair as amply demonstrated by the derailments of 1985 and 1987. The slow movement of traffic along the line accounts, in part, for the declining use of the line in favour of the Addis Ababa-Assab road link. Improvements to a short stretch of track west of Dire Dawa and the purchase of new rolling stock are currently being financed by the EC, though the railway really needs a complete overhaul. The Chemin de Fer Djibouto-Ethiopien (CDF) - a company owned by the Ethiopian and Djiboutian States - has requested \$250 million of funding to cover the costs of rehabilitation. The EC, France, Italy and the United Kingdom have shown interest in the project.

Port

The Republic of Djibouti benefits from its strategic location at the mouth of the Red Sea as an important chandling and bunkering station for military and commercial shipping and as an entrepot for Ethiopia. The port facilities include a roll-on-roll-off terminal, a container terminal which was completed in 1985, with a handling capacity of 25 containers per hour, 2,500 metres of quays and total storage capacity of 37,600 sq m. In 1988 the Kuwait Fund for Economic Development provided a \$9.6 million loan for an extension to the container terminal and the ship repair facilities. The port is efficient and has a short turn around time.

Air

Djibouti is served by Ambouli International Airport and there are landing strips at Obock and Tadjourah. In 1986 there were 5,911 civil flights carrying 298,416 passengers (60 per cent of whom were in transit) and 8,589 tonnes of freight and post. Increasing dependence on transit traffic since independence adds an element of insecurity to the airport's continued development. High charges at Ambouli Airport have already persuaded airlines to change their stop-over points to other East African countries, while the

introduction of a new generation of long haul aircraft is likely to cut out a proportion of the Paris-Reunion flights. Nevertheless, the government has presented ambitious modernization plans to donors. These include refurbishment of the terminal building, reinforcement of the runway and aprons and modernization of navigational equipment. Early in 1988 the project was pruned down from an original estimate of \$21.5 million to \$14 million. The Saudi Fund for Development, Abu Dhabi Fund for Economic Development and Kuwait Fund for Economic Development are to provide finance.

Telecommunications

A new international telephone exchange and radio telephone link with Saudi Arabia and Yemen Arab Republic were installed in 1985. Djibouti now enjoys an efficient international telephone, telex and telefax communications. Links with Europe are assured by submarine cable. Three million international calls were made in 1987.

In 1987, there were 4,452 telephone subscribers, in 1986 23 per cent more than in 1983. The number of domestic calls has increased by 450 per cent over the same period to 22.5 million calls in 1987. To meet the growing demand a new electronic digital exchange with a capacity of 7,500 lines will be installed by the end of 1989. Funding has been provided by the CCCE.

5.6 The role of technical co-operation in industrial development

Djibouti leans heavily on external assistance. The principal beneficiaries of aid flows have been infrastructural facilities, mainly transport and communications. Until mid-1987 Djibouti received around \$570 million of aid. Of the disbursed sum, \$220 million was utilized for the development of transport and communications. A further \$60 million was destined for electricity development, while the primary sector received \$50 million. Industry's share of technical assistance has been relatively small. In 1986 it represented only 0.1 per cent of the total technical assistance budget. Technical assistance to the industrial sector has often been in the form of short term contracts, with missions aimed at the resolution of managerial and technical problems of the public enterprises and the planning procedures. These missions have contributed little to the development of managerial and technical skills among the work force.

Hitherto, technical assistance to industry has been in the form of French co-operation of technical adviser to the Ministry of Industry, three technicians to ONED and ten technicians to EDD. Annex D furnishes a list of UNIDO technical co-operation projects.

A move towards long-term co-operation can be seen in four of the technical assistance projects identified in 1988:

1. Technical assistance during the start up of the Animal Feed Factory (Denmark).
2. Managerial assistance to Djibouti Editions Diffusion, in an attempt to resolve the company's financial problems (FAC).
3. Technical assistance to Laiterie de Djibouti for the maintenance and repair of plant (FAC).
4. Technical assistance to the Ministry of Industry for the development of an industrial promotion service (UNIDO).

Each of these projects is intended to provide training for company or ministerial staff, who in the long term, are expected to replace the technical assistants. The government is eager that donor organization provide further assistance along these lines, as a means of transferring skills from expatriate personnel to nationals (Article 39, Law No. 251/AN/82), particularly following the development of new industrial enterprises.

The need for fostering industrialization is more urgent in view of the rapidly growing work force. Economic diversification through industrialization appears a matter of necessity to reduce Djibouti's dependence on service sector to generate growth and employment.

Djibouti's strategic position in the Red Sea and close cultural and political ties with the Arab States suggest another potential export destination. These countries depend heavily on manufactured imports. Special trade agreements could be arranged by AIDO, with a view to promoting manufacturing enterprises in Djibouti.

ANNEX A
STATISTICAL TABLES

Table A-1: Central Government budget, 1978-1988
(selected years)
(DF million)

	1978	1980	1982	1984	1986	1987	1988 ^{a/}
<u>Current Account</u>							
Receipts	9,138	15,774	19,746	19,338	19,100	20,714	21,717
of which %:							
Direct taxes	21	20	19	21	23	24	23
Indirect taxes	71	67	65	67	66	65	65
Non-fiscal	8	13	16	12	11	11	12
Average change (%) ^{b/}		+28	+8	+3	-8	+8	+4
Expenditure	11,366	14,870	19,804	20,033	21,439	21,363	22,359
of which %:							
Salaries	62	60	55	60	60	61	60
Goods and services	34	34	34	30	31	29	29
Others	4	4	11	10	9	10	11
Annual change (%) ^{b/}		+8	+13	+0.5	+2	-0.4	+5
Balance	-2,228	+904	-58	-645	-2,334	-649	-642
<u>Capital Account</u>							
Receipts	6,562	5,408	3,324	1,844	1,585	1,490	1,550
of which %:							
National army	55	78	0	0	0	0	0
Budget support	22	4	80	80	98	94	90
Other	23	18	20	20	2	6	10
Annual change (%) ^{b/}		+7	-51	-25	-19	-6	+2
Expenditure	2,562	2,478	5,595	2,743	553	841	907
of which %:							
Fixed capital formation	92	85	94	89	100	100	100
Others	8	15	6	11	0	0	0
Annual change (%) ^{b/}		-9	+16	-50	-80	+52	+8
Balance	+4,275	+2,930	-2,277	-899	+1,032	+649	+643

Source: Ministère des Finances et de L'Economie Nationale, Le Budget de l'Etat, Exercise 1988 and Exercise 1987.

a/ Planned.

b/ Annual growth on previous year.

Table A-2: Balance of payments projections, 1987-1991
(DF million)

	1987	1988	1989	1990	1991
Exports (fob)	17,656	18,327	19,024	19,747	20,500
Imports (fob)	-34,804	-35,436	-36,538	-37,470	-38,856
Trade balance	-17,148	-17,109	-17,334	-17,722	-18,356
Services (net total)	3,657	3,794	3,942	4,093	4,239
Interest	-592	-674	-705	-711	-687
Freight, insurance	-6,142	-6,253	-6,416	-6,612	-6,847
Other transport	2,999	3,059	3,120	3,182	3,246
Purchases by non-residents	6,120	6,356	6,620	6,885	7,160
Others	1,272	1,297	1,323	1,350	1,377
Balance of goods and services	-13,490	-13,315	-13,392	-13,629	-14,117
Unrequited transfers of which:	3,120	3,000	2,879	2,770	2,672
official	3,150	3,015	2,894	2,785	2,687
private	-15	-15	-15	-15	-15
Current account balance	-10,355	-10,315	-10,513	-10,859	-11,466
Capital movements	7,703	5,851	4,298	3,097	2,615
Overall balance	-2,653	-4,465	-6,216	-7,763	-8,831
Debt servicing	2,149	2,337	2,668	2,879	2,810

Source: International Monetary Fund cited in Indian Ocean Newsletter Special Report, "Djibouti Financial Problems Loom", 1986.

Table A-3: Direction of trade, 1982-1986
(\$ million)

	1982	1983	1984	1985	1986
Exports					
Somalia	13.1	13.1	14.4	14.4	15.1
Yemen Arab Republic	5.0	10.2	11.2	11.2	11.8
Democratic Yemen	7.8	7.9	8.6	8.6	9.0
Ethiopia	1.3	4.3	1.8	1.8	1.9
Saudi Arabia	1.5	0.8	2.1	1.8	1.4
Seychelles	3.4	1.3	5.2	1.2	1.3
Italy	0.4	6.9	4.7	0.8	1.1
France	0.2	0.7	0.2	0.1	0.8
Imports					
France	72.1	77.4	77.1	67.5	54.5
Bahrain	37.5	47.3	40.7	40.7	42.7
Ethiopia	41.2	34.8	31.8	31.8	33.4
Japan	27.4	23.5	24.3	22.3	23.0
United Kingdom	12.5	12.8	13.1	28.7	19.7
Italy	13.3	12.7	22.7	32.4	18.7
Republic of Korea	8.5	10.0	7.9	11.0	16.4

Source: IMF, Direction of Trade Statistics (1987 Edition).

Note: These statistics are based on the published trade data of Djibouti's trading partners and do not correspond with official government sources.

Table A-4: Average monthly wages, selected industrial sectors, 1987

Sub-sector	DF	US\$
Food industries	67,250	375
Joinery	39,078	217
Jewellers	37,000	206
Bakeries	46,937	262
Printing	61,996	304
Public works	61,996	345
Port	80,677	450
Railway	59,552	332
Average all sectors	57,317	319

Source: Caisse de Prestations Sociales.

Table A-5: Electricity tariffs for Djibouti City, 1988

Consumer status	Capacity	Fixed charge	Variable charge by unit			
			1	2	3	4
Domestic "Social"	1kVA	360	29	26		
Domestic	3kVA	560	37	35		
	6kVA	630	37	35		
	9kVA	770	37	35		
Non-Domestic	up to 36kVA	350	46			
	greater than 36kVA	38 x kVA	46			
Degressive I	up to 10kVA	300	46	42	37	43
	greater than 10kVA	800 x kVA -10	46	42	37	43
Degressive II	up to 10kW	300	46	42	37	43
	greater than 10kW	1000 x kW - 8	46	42	37	43
Building sites	up to 18kVA	5000	46			
	18-36kVA	10000	46			
	36-100kVA	350 x kVA	46			
	greater than 100kVA	contract	46			
<u>Definition of variable charge units:</u>						
Domestic kWh	1kVA		90	remainder		
	3kVA		105	remainder		
	6kVA		120	remainder		
	9kVA		135	remainder		
Non-domestic kWh			Total			
Degressive I	kWh x kVA		75	90	100	remainder
Degressive II	kWh x kVA		95	110	120	remainder

Source: Simplified and tabulated from Law No.83-0208.

Table A-6: Key food imports by origin, 1985

Goods	DF.mn	Tonnes	Principal countries of origin
Vegetables	382	8,423	Ethiopia, France
Fruit	324	5,675	Ethiopia, France
Rice	1,715	39,193	Thailand, USA
Sorghum	93	1,620	India, Australia
Wheat flour	670	15,020	France, Fed. Rep. Germany
Pasta	363	3,797	Italy, Netherlands
Vegetable oils	564	3,785	Singapore, Netherlands
Eggs	91	353	France, Netherlands
Sugar (refined)	505	13,334	Ethiopia, France
Meat	412	856	France, Netherlands
Milk (frozen, dried, UHT)	821	3,927	Netherlands, France
Fish and shellfish	32	56	France, Italy

Source: DINAS, Annuaire Statistique, 1986, p. 105.

Table A-7: Imports of petroleum products as a proportion of total imports, 1980-1985
(DF million)

	1980	1981	1982	1983	1984	1985
Petroleum imports	2,661	3,260	3,864	3,708	3,423	3,507
Total imports	37,920	39,825	40,197	39,307	39,425	35,670
Petroleum as per cent of total imports	7.0	8.2	9.6	9.4	8.7	9.8

Source: DINAS.

Table A-8: Imports of petroleum products by origin, 1985

Product	DFmn	Tonnes	Principal countries of origin
Paraffin oil	579	11,717	Saudi Arabia, Bahrain
Gas oil	843	18,836	Bahrain, Saudi Arabia
Fuel oil	1,136	30,409	Bahrain
Petroleum (Super)	373	7,182	Saudi Arabia, Bahrain
Petroleum (Ordinary)	166	3,162	Bahrain, Saudi Arabia
Butane	44	416	United Arab Emirates
Other products	366		
Total		3,507	

Source: DINAS.

ANNEX B

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

Annex B - The completed, operational and/or approved technical
co-operation projects of UNIDO

I - The completed projects

Republic of DJIBOUTI

since 1972

<u>Backstopping Responsibility</u>	<u>Spec.Act./ All.Acc.Code</u>	<u>Project Number</u>	<u>Project Title</u>
IO/IIS/IMR	J12206	SI/DJI/86/851	Consultant in dairy plant management and marketing
IO/IIS/PLAN	31.2.A	RP/DJI/85/001	Assistance for the preparation of an industrial programme (continued under XP/DJI/85/001)
IO/IIS/PLAN	J12413	XP/DJI/85/001	Assistance for the preparation of an industrial programme (ex RP/DJI/85/001)
IO/T/AGRO	J13104	SI/DJI/86/850	Assistance in preventing environmental degradation from the wet-blue tannery project
IO/T/ENG	J13312	US/DJI/86/021	Preparatory assistance to identify problems at Tadjourah Mineral Water Plant (ex XP/DJI/86/035)
IO/SD/FEAS	31.6.A	SI/DJI/79/801	Formulation de l'assistance au secteur industriel
IO/SD/FEAS	31.6.A	SI/DJI/80/801	Unité d'études industrielles
IO/SD/FEAS	J12516	DP/DJI/84/003	Etude de faisabilité pour l'établissement d'une usine de fabrication de biscuits et de pâtes alimentaires

II - The operational and/or approved projects

Republic of DJIBOUTI

<u>Backstopping Responsibility</u>	<u>All.Acc.Code</u>	<u>Project Number</u>	<u>Project Title</u>
IO/SD/FEAS	J14102	DP/DJI/86/014*	Renforcement du développement et de la promotion industrielle

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

** Total allotment \$1 million or above

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