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**INDUSTRIAL DEVELOPMENT REVIEW
SERIES**

MAURITANIA

Industrial reorientation and rejuvenation

Prepared by the
Regional and Country Studies Branch

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PREFACE

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

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

The Reviews draw primarily on information and material available at UNIDO headquarters from national and international sources as well as data contained in the UNIDO data base. 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 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 Mauritania 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:

CNSS	Caisse Nationale de Sécurité Sociale
EC	European Community
ECOWAS	Economic Community of West African States
ECU	European Currency Unit
EDF	European Development Fund
FND	Fond National de Développement
GDP	Gross domestic product
GNP	Gross national product
IDA	International Development Association
IMF	International Monetary Fund
ISIC	International Standard Industrial Classification
LDC	Least Developed Country
MVA	Manufacturing value added
OECD	Organization for Economic Co-operation and Development
OPEC	Organization of Petroleum Exporting Countries
PIP	Priority Investment Programme
PREF	Economic and Financial Recovery Programme
SME	Small and Medium Enterprise
SMI	Small and Medium Industry
SDR	Special Drawing Rights
UM	Mauritanian Ouguiya
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization

BASIC INDICATORS I

The economy

GDP (current market prices, 1986) :	UM59,930 million				
Population (1987 estimate based on 1986 census) :	1.83 million				
Labour force (1985) :	485,000				
GNP <u>per capita</u> (1986) :	\$420				
Annual growth rate of GDP (per cent) :	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
	9.6	2.1	-3.6	-5.3	-3.8
	<u>1985</u>	<u>1986</u>	<u>1987^{a/}</u>		
	2.8	3.8	2.5		
GDP by sector of origin (per cent) :	<u>1984</u>				<u>1986</u>
Livestock :	20.6				20.3
Agriculture and forestry :	2.4				4.7
Fishing and fish processing :	9.6				10.3
Mining :	16.4				14.6
Manufacturing ^{b/} :	3.8				4.0
Construction :	7.4				7.0
Services and other :	39.4				39.1
Annual rate of inflation (consumer price in Nouakchott) (per cent) :	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
	10.7	19.1	11.9	1.6	7.0
	<u>1986</u>	<u>1987</u>			<u>1985</u>
	8.0	4.1			10.5
Currency exchange rate (end of period) (Ouguiya (UM) equivalents to \$1) :	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
	40.03	49.84	52.96	57.03	67.29
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u> (Sept.)	
	77.07	74.08	71.60	78.92	

a/ UNIDO estimate.

b/ Excludes fish processing, but includes electricity and water.

BASIC INDICATORS 2

Resources

Food crops (1987) ('000 tonnes)	:	Millet and sorghum (93.1), paddy rice (19.8), niéb� (4.6), maize (2.9), wheat and barley (4.6), dates (4.5) ^{a/}
Livestock (1987) ('000 heads)	:	Cattle (1,200), sheep and goats (7,200), camels (820)
Minerals (1987) ('000 tonnes)	:	Iron ore (9,108), gypsum (19,402)

a/ 1986.

BASIC INDICATORS 3

Foreign trade and balance of payments

Merchandise exports fob (1986) :	\$418.8 million
Principal products (1986) (per cent) :	Fish products (59.2), mineral products (40.8)
Main destinations (1986) (per cent) :	Japan (38.6), Italy (21.6) France (15.1), Belgium-Luxembourg (12.7)
Merchandise imports fob (1986) :	\$401.2 million
Principal products (1986) (per cent) :	Food (28.7), fuel (21.7), vehicles and spare parts (6.1), investment goods (12.8)
Main suppliers (1986) (per cent) :	France (32.9), Spain (26.6), Federal Republic of Germany (6.0)
Balance of payments (1986) (current account deficit) :	\$185.8 million
Official reserves (Sep. 1988) :	\$43.8 million (excluding gold)
External debt (1986) :	\$1,761.1 million
as percentage of GNP (1986) :	234
Debt service ratio (1986) (as percentage of exports of goods and services) :	17.0

BASIC INDICATORS 4

The manufacturing sector

Manufacturing value added (MVA) (1984)	:	UM1,396 million (\$21.9 million)																				
MVA <u>per capita</u> (1984)	:	UM763 (\$12) ^{a/}																				
Average annual growth of MVA (per cent)	:	<table><tr><td><u>1980</u></td><td><u>1981</u></td><td><u>1982</u></td><td><u>1983</u></td><td><u>1984</u></td></tr><tr><td>4.8</td><td>-5.8</td><td>7.4</td><td>-4.8</td><td>5.0</td></tr><tr><td></td><td></td><td><u>1985</u></td><td></td><td></td></tr><tr><td></td><td></td><td>5.0</td><td></td><td></td></tr></table>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	4.8	-5.8	7.4	-4.8	5.0			<u>1985</u>					5.0		
<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>																		
4.8	-5.8	7.4	-4.8	5.0																		
		<u>1985</u>																				
		5.0																				
Employment in industry (1980) as percentage of total labour force	:	35,000 8.0																				
Composition of MVA (percentage share)	:	<u>1984</u>																				
Consumer goods		58.8																				
Intermediate goods		11.7																				
Capital goods		9.4																				
Water and electricity		20.1																				
Share of manufacturing trade (1986)																						
In total exports (per cent)	:	6 ^{a/}																				
In total imports (per cent)	:	66																				

a/ UNIDO estimate.

BASIC INDICATORS 5

Inter-country comparison of selected indicators

	Unit	<u>Mauritania</u>	Côte d'Ivoire	Guinea	Mali	Senegal
I. Demographic indicators						
Population (mid-1986)	million	1.8	10.7	6.3	7.6	6.8
Population growth (1980-1986)	per cent per annum	2.6	4.2	2.4	2.3	2.9
Infant mortality (1986)	per thousand	127	96	148	144	130
Area	thousand sq km	1,031	323	246	1,240	196
Density (1986)	persons per sq km	1.7	33.1	25.6	6.1	34.7
II. Economic indicators						
GDP (1986)	US\$ million	750	7,320	1,980	1,650	3,740
GNP <u>per capita</u> (1986)	US\$	420	730	...	180	420
GDP growth rate (1980-1986)	per cent per annum	1.0	-0.3	0.9	0.4	9.2
Agriculture (1986)	per cent of GDP	34	36	40	50	22
Industry (1986)	per cent of GDP	24	24	22	13	27
Manufacturing (1986)	per cent of GDP	...	16	2	7	17
Services (1986)	per cent of GDP	42	40	38	37	51
Exports of goods (1986)	per cent of GDP	56	40	25	15	28
Gross domestic investment (1986)	per cent of GDP	25	12	9	21	14
External public debt (disbursed) (1986)	per cent of GNP	210.0	73.4	70.4	95.7	69.2
III. Industrial indicators						
MVA (1985)	\$ million	12 ^{a/}	889	41	82	474
MVA growth (1980-1985)	per cent/annual	-3.0	-1.1	3.0	6.6	2.7
Share of manufactured exports in total exports (1986)	per cent	6 ^{b/}	9	...	30	29
Share of manufactured imports in total imports (1986)	per cent	66	75	56	74	62

Note: Based on the World Bank data presented in the World Development Report 1988. 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/ 1984 UNIDO estimate.

b/ UNIDO estimate.

SUMMARY

The economy of Mauritania rebounded in 1985 from severe economic strains stemming from depressed world market for iron ore, the country's principal foreign exchange earner, and prolonged drought. The pace of economic recovery averaged 3.6 per cent during 1985-1988 against the targeted annual average rate of 4 per cent. The process of economic consolidation and recovery continues with the implementation of the Economic Revival Programme for 1989-1991.

The achievement of a 4 per cent annual increase in real GDP envisaged for 1989-1991 depends crucially upon Mauritania's ability to correct macroeconomic imbalances and revitalize the private sector. Economic diversification and private sector initiative constitute the cornerstone of the government's strategy to sustain growth in the 1990s.

In the early 1970s, the manufacturing sector, including energy and handicrafts, accounted for hardly 3 per cent of GDP. Despite government investment in some large industrial projects during 1974-1978, the manufacturing sector grew at a modest rate of 2.5 per cent per annum. The government attempted to foster the process of industrialization with a reorientation of policy favouring the progressive expansion of private sector and small-scale enterprises. The surge in industrial production in 1984 and 1985 coincided with the emergence of a number of private sector large-scale industrial enterprises encompassing a biscuit factory, a milk processing plant, a soap and hygienic products plant, and a shoe factory. With a 7.2 per cent annual average growth in value added during 1979-1985, fish processing emerged as the single most important manufacturing activity in Mauritania. The food and beverages branch of manufacturing accounted for around 56 per cent of MVA in 1984. Tailoring is clearly the dominant activity in informal manufacturing activities.

The limited degree of industrial processing is evidenced by the low share of value added in gross turnover, averaging 38.5 per cent for 22 industrial enterprises in 1987. These enterprises undertake little transformation of basic raw materials, which are mostly imported. However, the share of value added in gross output is high in relatively few enterprises which use local raw materials, e.g., tile manufacturing, food and beverages.

The performance of the manufacturing sector is, in general, characterized by low profit and low capacity utilization rates. Only four companies, FAMO, the pasta factory, SOMAM, which produces metal plates and dishes, *Répresentation de Commerce Général et Industrie de Mauritanie* (RECOGIM), the foam mattress factory, and the *Société Mauritanienne d'Industrie Générale de Mauritanie* (SOMIGEM), the soap factory, among 18 factories for which data was available for 1987, had rates of return on investment exceeding 10 per cent. Eight of the remaining fourteen companies experienced rates of return lower than the prevailing rate of interest for deposits in the commercial banks.

Low returns affected the firms' ability to purchase the necessary raw materials, maintain adequate stocks and rehabilitate existing plants. In some cases, such as La Mauritanienne des Produits Manufacturés (MAPROMA), the soap factory, idle capacity is due to the fact that the plant's installed capacity exceeds the size of the local market. This may be unavoidable in highly capital-intensive production processes such as chemical and basic metal industries. Penetration of the international market would absorb excess capacity, but in the case of MAPROMA the plant does not seem to be competitive outside customs protection afforded by the government. An alternative is to diversify the products made from existing plant: a strategy successfully implemented by the Comptoir Industriel de Produits Chimiques et d'Entretien (CIPROCHEMIE), a chemicals factory, whose products range from detergents to pesticides and aerosols.

The fish processing sector has also been plagued by low capacity utilization rates. In the 1970s, approximately 90 per cent of the catch was processed at sea in large industrial fishing vessels. With the imposition of mandatory on-shore processing of fish caught within Mauritanian waters in 1982, idle capacity was brought into use, but only temporarily. New joint ventures set up between the state and foreign governments have established processing facilities of their own in response to the government's requirement that fishing fleets invest in onshore facilities. As a result, capacity increased rapidly in the mid-1980s. Consequently, capacity utilization rates have fallen. At current rates of growth of the fish catch, capacity is likely to remain under-utilized well into the next decade. If one considers that most of the fleets operating in Mauritanian waters are equipped with on-board processing facilities, the under-utilization of capacity is even more extreme. Inevitably, the under-utilization of capacity has impaired the profitability of joint ventures within the fish processing sector. Although the volume of fish products undergoing a higher degree of processing has increased considerably in recent years, the vast majority of fish exports is subject to little processing other than cutting and freezing.

The global recession in steel industry coupled with structural change in steel-using industries resulted in a drastic fall in Mauritania's iron ore exports. However, iron ore exports continue to dominate the country's export profile by accounting for around two-thirds of total export.

None of the enterprises engaged in the manufacture of consumer durable goods are export-orientated. On the contrary, most produce specifically for the domestic market which, though limited in scope, offers considerable protection through tariff and non-tariff barriers. Furthermore, the quality of products destined for consumers is below the standard set by competitors abroad. These companies are, consequently, unable to edge into regional or international markets. Nevertheless, a number of companies do have export potential.

The low levels of employment in the modern sector reflect the capital-intensive nature of these enterprises in comparison with the handicrafts sector. The medium- and large-scale enterprises proved an expensive means of generating employment. Eighteen manufacturing plants absorbing investment to the tune of U\$1.4 billion up to 1985 created only 800 jobs. Entrepreneurs have consistently preferred to install technology, almost invariably imported

technology, to produce products for the affluent end of the market for consumer durable goods, such as plastic, chemicals and metal products, that demand a high degree of automation and specialist machinery. On the other hand, the government is aware that the present Investment Code effectively subsidizes fixed investment and is determined to modify its structure to grant additional incentives to enterprises creating jobs.

The prime objective of the government's industrialization strategy is focussed on the processing of indigeneous raw material, such as minerals, agricultural and fisheries resources, with inter-sectoral linkages. Industry is also expected to improve the balance of payments situation through the active promotion of export-oriented and import-substituting industries. The government endeavours to introduce greater selectivity in the selection of enterprises, with priority accorded to labour-intensive export-oriented enterprises and to enterprises restoring regional balance in industrial development.

An efficient institutional framework for private initiative and suitable financial and advisory services are essential prerequisites for fostering the process of industrialization in Mauritania. The resumption of operations in industrial units that ceased production as a result of inadequate trained staff and input procurement merits immediate attention of multilateral and bilateral donors. With its status as a least developed country, Mauritania benefits from considerable multilateral and bilateral assistance.

Mauritania needs substantial technical and financial assistance from external sources to rejuvenate its industrial enterprises through radical restructuring. Recently the government re-opened a steel mill, which ceased production in 1984, as a new company with equity participation from the Arab Mining Corporation and Arab Iron and Steel Corporation. A sugar refinery and sugar packaging industry has been restructured with 27 per cent private equity participation.

The management of the only wholly State-owned oil refinery has been transferred to an Algerian Company. However, in contrast to the current wave of divestiture, the government has increased its participation in fish processing in the absence of significant private sector initiatives. Multilateral and bilateral agencies have a pivotal role to play in directing private initiatives to promising product areas. With substantial technical co-operation inputs the current phase of divestiture could be successfully implemented in order to achieve a healthy pace of industrial expansion in Mauritania.

SOMMAIRE

L'économie mauritanienne a connu une reprise en 1985 après une période de difficultés économiques graves dues au marasme du marché mondial du minerai de fer, qui est la principale source de devises de la Mauritanie, et à une sécheresse prolongée. Le taux moyen de croissance économique s'est élevé à 3,6 % entre 1985 et 1988, alors que l'objectif fixé était un taux annuel de 4 %. La consolidation et la reprise se poursuivent avec la mise en oeuvre du Programme de redressement économique pour la période 1989-1991.

Pour atteindre l'objectif d'une croissance annuelle de 4 % du PIB réel pour 1989-1991, la Mauritanie devra essentiellement corriger les déséquilibres macro-économiques et revitaliser le secteur privé. Diversification économique et relance du secteur privé sont les deux axes de la stratégie mise en oeuvre par le gouvernement pour soutenir la croissance dans les années 90.

Au début des années 70, le secteur manufacturier, y compris la production d'énergie et l'artisanat, représentait à peine 3 % du PIB. Malgré les investissements réalisés par les pouvoirs publics dans quelques grands projets industriels entre 1974 et 1978, le secteur manufacturier a connu un taux de croissance modeste de 2,5 % par an. Le gouvernement a tenté d'accélérer l'industrialisation en favorisant l'essor du secteur privé et des petites entreprises. L'augmentation de la production industrielle en 1984 et en 1985 a coïncidé avec la création, dans le secteur privé, d'un certain nombre de grandes entreprises industrielles, notamment une biscuiterie, une laiterie, une usine de savon et de produits de toilette et une usine de chaussures. Avec 7,2 % de croissance moyenne annuelle de la valeur ajoutée entre 1979 et 1985, l'industrie du poisson reste la seule activité manufacturière importante de la Mauritanie. Le secteur de l'alimentation et des boissons représentait près de 56 % de la VAM en 1984. Dans le secteur manufacturier non structuré, c'est la confection qui reste l'activité la plus importante.

La part relativement faible de la VAM dans le chiffre d'affaires total, qui atteignait en moyenne 38,5 % pour 22 entreprises industrielles en 1987, montre bien que la transformation des matières premières reste modeste. Ces entreprises transforment peu les matières premières, pour la plupart importées. Toutefois, le rapport de la valeur ajoutée à la production brute est élevé dans quelques entreprises qui utilisent des matières premières locales, notamment pour la fabrication de tuiles, l'alimentation et les boissons.

D'une façon générale, les résultats du secteur manufacturier se caractérisent par la faiblesse des bénéfices et des taux d'utilisation des capacités installées. Seules quatre entreprises, parmi les 18 usines pour lesquelles des renseignements sont disponibles pour l'année 1987, à savoir la FAMO, qui est l'usine de production de pâtes, la SOMAM, qui produit des plaques et des plats en métal, la Représentation de commerce général et industrie de Mauritanie (RECOGIM), l'usine de matelas de mousse, et la Société mauritanienne d'industrie générale de Mauritanie (SOMIGEM), la savonnerie, avaient un taux de rendement des investissements supérieur à 10 %. Huit des 14 autres entreprises ont eu des taux de rendement inférieurs au taux d'intérêt servi par les banques commerciales aux titulaires de comptes de dépôt.

La faiblesse des taux de rendement n'a pas permis aux entreprises d'acheter les matières premières nécessaires, de maintenir des stocks suffisants et de moderniser leurs installations. Dans certains cas, comme

pour la Mauritanienne des produits manufacturés (MAPROMA) (la savonnerie), la sous-utilisation de la capacité de production est due au fait que la capacité installée de l'usine est disproportionnée par rapport aux besoins du marché local. Ceci est peut-être inévitable dans les secteurs à forte intensité de capital que sont les industries chimiques et métallurgiques. La pénétration du marché international permettrait d'absorber les capacités excédentaires, mais la MAPROMA ne semble pas suffisamment compétitive dès qu'elle ne jouit plus des protections douanières que lui accordent les pouvoirs publics. Une autre solution consisterait à diversifier la production, méthode appliquée avec succès par le Comptoir industriel de produits chimiques et d'entretien (CIPROCHEMIE), une usine chimique dont la production va des détergents aux pesticides et aux aérosols.

Le secteur de la transformation des produits de la pêche souffre lui aussi du faible taux d'utilisation de ses capacités. Dans les années 70, environ 90 % des prises étaient traitées en mer dans de grands chalutiers industriels. La Mauritanie ayant rendu obligatoire en 1982 le traitement à terre des poissons pêchés dans ses eaux nationales, la capacité de production a été mieux utilisée, mais seulement de façon temporaire. Les nouvelles coentreprises constituées par l'Etat et des partenaires étrangers ont créé leurs propres installations de traitement, les pouvoirs publics ayant demandé aux flottes de pêche d'investir dans des installations industrielles à terre. La capacité de ces installations a donc augmenté rapidement au milieu des années 80 et les taux d'utilisation ont donc baissé. Etant donné le taux de croissance des prises actuelles, cette capacité risque de rester sous-utilisée pendant une bonne partie de la prochaine décennie. Quand on sait que la plupart des flottes opérant dans les eaux mauritaniennes sont équipées d'installations de traitement à bord, on mesure l'ampleur du problème. Cette sous-utilisation a inexorablement pesé sur la rentabilité des coentreprises dans le secteur du traitement des produits de la pêche. Même si, au cours des dernières années, on a assisté à une augmentation considérable du volume des produits de la pêche ayant subi une transformation plus complète, le poisson exporté est, le plus souvent, simplement découpé et congelé.

La crise mondiale de la sidérurgie et la restructuration des industries consommatrices d'acier ont entraîné une chute spectaculaire des exportations de minerai de fer de la Mauritanie. Pourtant, ces exportations continuent à dominer le profil des exportations du pays puisqu'elles représentent près de deux tiers de la valeur totale des exportations.

Aucune des entreprises fabriquant des biens de consommation durables n'a orienté sa production vers l'exportation. Au contraire, la plupart d'entre elles produisent spécifiquement pour le marché intérieur qui, bien qu'étroit, est très protégé par des mesures tarifaires et non tarifaires. En outre, la qualité des produits destinés aux consommateurs locaux est inférieure aux normes fixées par les concurrents étrangers. Ces entreprises sont donc incapables de s'implanter sur les marchés régionaux ou internationaux. Malgré cela, certaines d'entre elles ont à coup sûr un potentiel d'exportation.

Les faibles effectifs du secteur industriel moderne montrent bien que ces entreprises sont très gourmandes en investissements, par rapport au secteur artisanal. Les entreprises moyennes et grandes sont un moyen onéreux de créer des emplois. Dix-huit entreprises manufacturières ayant absorbé des investissements d'un montant de 1,4 milliard d'ouguiyas (UM) jusqu'en 1985 n'ont créé que 800 emplois. Les entrepreneurs ont toujours préféré recourir à des technologies presque toujours importées et produire des biens de consommation durables, en particulier des plastiques, des produits chimiques

et mécaniques et métalliques, qui exigent un niveau élevé d'automatisation et un matériel spécialisé, pour les vendre aux consommateurs les plus riches du marché local. D'autre part, les pouvoirs publics mauritaniens ont conscience que le code des investissements en vigueur privilégie les investissements en capital fixe et ils veulent en modifier la structure pour donner des avantages supplémentaires aux entreprises qui créent des emplois.

La stratégie d'industrialisation du Gouvernement mauritanien est axée essentiellement sur la transformation des matières premières locales, telles que les minéraux, les ressources agricoles et halieutiques, et sur l'instauration de relations intersectorielles. L'industrie doit également contribuer à améliorer la balance des paiements grâce à une réorientation de la production vers l'exportation et vers les produits de substitution. Les pouvoirs publics s'efforcent de mieux sélectionner les entreprises, la priorité allant aux industries à forte intensité de main-d'oeuvre orientées vers l'exportation et à celles qui favorisent un rééquilibrage régional du développement industriel.

Pour favoriser l'industrialisation en Mauritanie, il faut donner à l'initiative privée un cadre institutionnel efficace et des services financiers et consultatifs satisfaisants. L'aide multilatérale et bilatérale devrait être axée sur la reprise de la production dans les unités industrielles qui ont cessé de fonctionner faute de main-d'oeuvre qualifiée et de moyens de production. Grâce à son statut de pays moins avancé, la Mauritanie bénéficie d'une assistance multilatérale et bilatérale considérable.

La Mauritanie a besoin d'une assistance technique et financière étrangère considérable pour rajeunir ses entreprises industrielles grâce à une restructuration radicale. Récemment, l'Etat a rouvert une aciérie qui avait cessé de produire en 1984, en créant une nouvelle entreprise avec prise de participation de l'Arab Mining Corporation et l'Arab Iron and Steel Corporation. Une entreprise de raffinage et d'emballage de sucre a été restructurée grâce à une prise de participation privée s'élevant à 27 % du capital social.

La gestion de la seule raffinerie de pétrole appartenant entièrement à l'Etat a été transférée à une société algérienne. Toutefois, par contraste avec la tendance actuelle au désengagement par cession d'actifs, l'Etat a augmenté sa participation aux industries de transformation du poisson, en raison du peu d'empressement du secteur privé. Les organismes multilatéraux et bilatéraux peuvent jouer un rôle capital en canalisant les initiatives privées vers les secteurs productifs prometteurs. Grâce à des apports substantiels dans le domaine de la coopération technique, le désengagement de l'Etat, qui s'opère actuellement, pourrait garantir une croissance industrielle soutenue en Mauritanie.

1. THE ECONOMY OF MAURITANIA

1.1 Recent economic trends

The economy of Mauritania recorded an annual average growth rate of 3.6 per cent during 1985-1988 against the envisaged target of 4 per cent. Although the pace of economic expansion during the period of Economic and Financial Recovery Programme (PREF, 1985-1988) was short of expectations, it marked an improvement over several consecutive years of declining growth rates.

Over-optimistic assumptions about the recovery of the world market for iron ore, Mauritania's principal export item, turned dubious and the country plunged into severe economic strains in the 1980s. Deterioration of the iron ore market and another harsh drought from 1982 to 1984, led to an increase in food imports and negative growth rates.

Faced with this deteriorating economic situation, mounting current account and budgetary deficits and economic stagnation the government sought to restore budgetary equilibrium and raise domestic savings to the equivalent of 15 per cent of GDP by 1988, reduce the current account deficit from 26 per cent of GNP in 1984 to at least 10 per cent by 1988, and achieve a real growth of 4 per cent per year during 1985-1988.

To achieve these goals, the government devalued the Ouguiya by 22 per cent in February 1985 and introduced a flexible exchange rate policy. This stimulated exports and helped to contain losses in the iron ore sector resulting from falling world prices. A rise in the volume of iron ore exports, as the Guelbs iron ore project began operations, reinforced the trend of increasing export revenues. In 1986, a 12 per cent fall in the receipts from fish exports brought a recession in the upward trend. However, in 1987, exports increased again and the devaluation has also helped to reduce imports - Mauritania's dependence on imports for basic necessities such as food and fuel, which, together, represented around 70 per cent of all imports in 1984, limit the government's room for manoeuvre on this front. As a result of these trends the balance of trade surplus, which the economy had achieved in 1983 for the first time since 1975, doubled to UM10,929 million in 1985 and fell only slightly to UM10,120 million in 1986.

Despite the improvement in the balance of trade and the rescheduling of part of Mauritania's external debt, the country's debt burden - \$1,228 million, the equivalent of 212 per cent of GNP, at the end of 1985 - and the servicing obligations it imposed made it impossible for the government to resolve its long-term deficit on current account. In 1985 the current account deficit amounted to \$116.5 million rising by 59.5 per cent to \$185.8 million in 1986. The government was unable to cover this deficit with its enhanced surplus on capital account, which rose from \$95.9 million in 1985 to \$177.4 million in 1986, and was forced to resort to its reserves. The situation improved in 1987, with the third round of debt rescheduling.^{1/}

^{1/} In 1985, repayments amounting to \$27 million were rescheduled for nine years with four years grace period, in 1986 a further \$77 million due over twelve months was renegotiated and a further \$61 million due between March 1987 and May 1988 was rescheduled for fifteen years with a grace period of five years in June 1987. Stand-by facilities were negotiated with the IMF in April 1985 and May 1986, each for SDR12 million, and in September 1986 Mauritania agreed a three-year Structural Adjustment Facility grant with the IMF, initially worth SDR15.9 million. Donors have also appreciated the government's comprehensive and radical reform programme. Long-term capital inflows nearly doubled from \$91.9 million in 1985 to \$168.7 million in 1986.

Under these circumstances, the government adopted an updated Structural Adjustment Programme in 1987, which was supported by IMF, with an increase in the funds available through the Structural Adjustment Facility to SDR21.5 million. This was subsequently increased to SDR84.75 million over three years under the Fund's Enhanced Structural Adjustment Programme. In this second phase the government has sought to build on the achievements of the 1985-1987 PREF by improving economic management and bringing budgetary expenditure into line with targets.

The government attempted to improve budgetary discipline through improved tax collection procedures, the revision of taxation scales and the stabilization of state expenditure at a nominal growth rate of 6.2 per cent per year through a range of austerity measures. This was paralleled by the government's decision not to contract new loans and accord its guarantee to only those loans granted on favourable terms and which respond to priority needs. The budget registered healthy positive balances in both 1986 and 1987 - far from the UM1,881 million budgetary deficit registered in 1983 - as revenues increased by 13 per cent per year over the same period, from UM12,451 million to UM15,713 million. Recurrent expenditure was targeted for the largest cuts with a limit set on military expenditure, the reduction in the number of subsidies and a freeze on public sector employment.

The reform of the public sector enterprises was continued, with the public enterprises given greater autonomy in such matters as price fixing and investment strategies whilst investing funds, where necessary, in their selective rehabilitation. Management of the investment programme was improved too, with the introduction of consolidated accounts in 1987 and the rigorous testing of projects. Efforts were also made to increase the contribution of domestic savings to the investment programme - this attained only 7 per cent, UM3.4 billion, in the 1985-1988 phase of the PREF. Investment funds, moreover, continued to be directed primarily at the productive sectors of the economy. For the period 1985-1988 as a whole 26 per cent of the UM50.8 billion of new investments were in the rural sector, 15 per cent in the industrial sector - mostly in fish processing - and 20 per cent in infrastructure.

In addition to the incentives to the private sector, the government sought to liberalize the pricing structure. The list of fixed and capped prices was restricted to essentials, primarily food products. Together these measures were intended to promote domestic investment and attract entrepreneurs from abroad. Agricultural production was, meanwhile, stimulated by an increase in producer prices. Furthermore, tariffs and prices have been adjusted to reflect real cost; an essential step in restoring the loss-making public sector enterprises to profitability. The selective rehabilitation of the five largest and twenty five of the smaller public sector enterprises through cost cutting, managerial reform and, where appropriate and possible, transfer to the private sector reinforced these pricing reforms.

Monetary restraint was a further component of the government's reform package. A limit of 5 per cent was set on the growth of credit to the private sector and net credit to the government was frozen. Reforms to the banking system, notably improvements to the debt retrieval procedures, were introduced, in an effort to restore the private banks' liquidity and stem their losses. Interest rates were increased by 2 per cent and the government resolved to maintain them at positive levels in real terms. Both these measures would, the government and IMF hoped, increase the level of domestic saving.

The process of economic consolidation and recovery continues in Mauritania, with the adoption of the Economic Revival Programme in September 1988. The new programme envisages an annual average growth rate of 4 per cent during 1989-1991. The achievement of a 4 per cent annual increase in real GDP depends crucially upon the country's ability to correct macroeconomic imbalances, revitalize the private sector, improve public sector performance and on the creation of infrastructural facilities and apt choice of projects for economic diversification.

Economic diversification and private sector initiative are the broad guidelines of the government's strategy for sustaining economic growth in the 1990s, with a focus on creating the foundation of a stronger economy for the future. Improved planning with carefully selected investment and close control of the budget together with a liberalization of the economy and the provision of incentives for entrepreneurs are the tools with which the government plans to reach these goals. While not well endowed with natural resources compared with other African countries, the government hopes to mobilize the country's natural and human potential and exploit those resources that have been overlooked or ignored in the past with a view to fostering the process of economic diversification.

1.2 Economic structure

With a fall in GNP per capita from \$480 in 1983 to \$420 in 1986, Mauritania has been sliding progressively down the global chart of national incomes. Although endowed with significant natural resources, relative to its population of 1.83 million in 1987, Mauritania has seen its economy changing from one of rapid growth in the first decade of independence in 1961 to stagnation and dependence on foreign assistance.

In the 1960s, GDP grew at an average annual rate of 8.1 per cent in real terms as rising world demand for iron ore supported a rapid growth in mineral exports and helped to consolidate the infant economy. The high key optimism about the growth prospects of independent Mauritania faded away in the wake of prolonged and severe drought: from 1969 to 1973, devastating the traditional nomadic economy that supported more than half the population and brought growth rates to more modest levels. This was followed by recession in the world steel industry in 1975, leading to a fall in revenues from mineral exports, and, together with heavy investment in ambitious development projects and an increase in defence expenditure during the mid-1970s, the economy stagnated and burden of external debt built up. During 1970-1978, the annual growth of GDP in real terms averaged only 1 per cent.

Since 1978, the government has endeavoured to bring about an economic recovery by focusing on new public investment, funded, for the most part, by external assistance, on the productive sectors of the economy and stimulating private investment, while restraining the growth in domestic demand and budgetary expenditure and re-scheduling the country's heavy debt burden.

Despite its early successes - GDP grew by 9.6 in real terms in 1980 - the recovery programme underestimated the structural and institutional constraints of the Mauritanian economy and was based on over-optimistic assumptions about the recovery of the world market for mineral exports. However, the progressive expansion of the mining sector in Mauritania has effected structural transformation of the economy.

Agriculture was the backbone of the Mauritanian economy at independence. In 1960, the agricultural sector accounted for 44.4 per cent of GDP and virtually all exports, the single most important export commodity being livestock which accounted for 86 per cent of total exports. In the subsequent two decades the sector's contribution to GDP has fallen steadily to 32.6 per cent in 1984 (Table 1.1). The declining trend was marginally reversed to 33.9 per cent and 35.2 per cent in 1985 and 1986, respectively. However, the marked decline in its share of GDP over years reflects its relative stagnation.

Livestock herding, the strongest sector of the rural economy accounting for 20.2 per cent of GDP in 1986, suffered particularly in the droughts of the early 1970s and 1980s. Herd strengths have since recovered, but desert encroachment has gnawed away at the pastures and encouraged the migration of nomadic herdsmen to the urban areas.

Crop production has proved unable to keep pace with the food needs of a population growing at a rate of 2.1 per cent per year. In the mid-1980s domestic production typically covered only 20-30 per cent of demand and in the aggravated conditions of a drought in 1983-1984 cereals production this proportion fell to only 10 per cent. The remainder had to be met by food imports (35 per cent of total demand) and food aid (40 per cent of total demand) placing a considerable strain on the balance of payments. In 1986 food import requirements amounted to 170,000 tons, half of which was covered by foreign aid. Two years before, during the drought, commercial food imports amounted to 302,400 tons and food aid 142,000 tons. An extensive irrigation programme is under way to boost production and smooth out variations in crop yields, but these projects offer little prospect of achieving food self-sufficiency in the near future.

The exploitation of marine resources and raising the value added of fish exports contributed to a significant rise in its share of GDP. By 1985 fisheries accounted for 10.8 per cent of GDP, of which 9.1 per cent was contributed by fishing and the remainder by fish processing. In 1983 the value of fish exports exceeded those of iron ore for the first time and in 1986 they accounted for 59.1 per cent of all exports recorded by the government's statistical department. Further growth in this sector is anticipated but there is concern that current rates of exploitation will exhaust stocks, particularly those of the more valuable species, and the government may soon impose a ceiling on rates of extraction.

The exploitation of iron ore deposits at Zouérate in northern Mauritania provided the main impetus for rapid growth of the Mauritanian economy in the 1960s and 1970s. Iron ore production peaked at 11.9 million tons in 1974, the year that the government nationalised the mining corporation and founded the Société Nationale Industrielle et Minière (SNIM). At that time the mining sector accounted for 25.7 per cent of GDP and iron ore represented 69.8 per cent of total exports. However, the stagnation of the world steel market in the mid-1970s, a result of global recession and a structural change within the steel and steel-using industries, led to a steady fall in iron ore exports thereafter. Production too was interrupted by technical problems. It was not until 1985 that the industry witnessed a significant recovery as a result of the strengthening world steel market and the start-up of the Guelbs mines which is expected to provide the main source of iron ore in the 1990s as existing deposits near Zouérate are depleting. The share of mining in GDP fell from 16.4 per cent in 1984 to 14.6 per cent in 1986. The industry will

continue to play a major role in the Mauritanian economy as a source of foreign exchange but, despite large investments by donors, its financial viability is by no means secure and depends largely on the successful restructuring of SNIM and the recovery of world iron ore prices.

Table 1.1: Distribution of GDP by sector of origin, 1984-1986
(percentage)

Sector	1984	1985	1986
Primary sector	32.6	33.9	35.2
Agriculture and forest	2.4	2.7	4.7
Livestock	20.6	20.4	20.2
Fishing and fish processing	9.6	10.8	10.3
Secondary sector	27.6	26.7	25.6
Mining	16.4	15.6	14.6
Manufacturing	3.8	3.9	4.0
Buildings and public works	7.4	7.2	7.0
Other	39.4	38.4	39.2

Source: Banque Centrale, Bulletin Trimestriel, March 1988.

The performance of the manufacturing sector has been less impressive. Between 1974 and 1985 the manufacturing and handicrafts sector - which includes energy and water production for the purposes of national accounts - contribution to GDP never exceeded 4 per cent. Although the manufacturing sector remains a minor contributor to the economy, there is scope for expanding manufacturing activities.

A large service sector, dominated by the Administration, has been a persistent feature of the economic structure since independence. In 1974, the service sector contributed 18.7 per cent of GDP, the Administration alone accounting for 11.3 per cent. By 1986 the service's sector's contribution to GDP had risen to around 40 per cent. The growth of the public sector administration is largely a result of increasing staffing levels: in 1985 30 per cent of the 60,000 workers in formal employment were in the public sector. This has placed a heavy burden on public finances. In 1982, the government awarded the first general salary increase for eight years and a 9 per cent increase in staffing levels in 1982-1983 was followed by a three-year moratorium on recruitment. Despite these measures the proportion of government expenditure disbursed on salaries has increased from 42 per cent in 1979 to 55 per cent in 1984 with a corresponding fall in other areas of government expenditure. Nor has the growth in the civil service been reflected in improved efficiency, partly because the levels of training are low - 69 per cent of government staff have not completed their primary education - and partly because the increase in the number of staff has led to

a duplication and division of responsibilities. A major reform of the administration, including a census of personnel, training programmes and measures to improve efficiency, has been planned as part of the government recovery programme. The successful implementation of this reform may be regarded as an essential step in the development of the manufacturing sector and the promotion of private sector investment since it will remove the bureaucratic obstacle frequently cited by entrepreneurs as a hinderance to their initiatives.

The poor performance of the Mauritanian economy since the mid-1970s is reflected in the limited number of employment opportunities in the modern sector. Only 60,000 persons, 12 per cent of the labour force, were employed in the modern sector in 1985, 30 per cent of these within the administration and a further 20 per cent in the parastatal enterprises. According to the Caisse Nationale de Sécurité Sociale (CNSS, National Insurance Fund) only 3 per cent of those in formal sector employment in 1985 were working in manufacturing enterprises compared with 26 per cent in construction and 44 per cent in the service sector. Small- and medium-manufacturing enterprises were thought to employ only 1,000 persons.

By far the largest part of the labour force - approximately 69 per cent according to a 1980 estimate - is employed in the agricultural and livestock sectors. In the cities, on the other hand, the informal sector predominates, though there is also widespread unemployment and underemployment. In Nouakchott, only 60 per cent of the labour force had regular employment and only one-third of these were in salaried jobs, a higher proportion than for the country as a whole.

The employment situation deteriorated through the early 1980s. Statistics provided by the Caisse Nationale de Sécurité Sociale (CNSS, National Insurance Fund) show that only 4,400 new jobs were created per year in the formal sector between 1979 and 1985, enough for only 20 per cent of the new entrants to the labour force. During the 1970s the administration and the public sector enterprises mopped up a large part of the remainder but this no longer seems possible in the context of the government's austerity programme. Indeed, both the government and the public sector enterprises have begun to shed excess labour in the interests of economy. The government now regards the private sector as the principal generator of new employment opportunities.

Mauritania's economic stagnation and unbalanced growth is also reflected in, and compounded by, the composition of trade and balance of payments. Iron ore and fish account for almost all exports, in contrast to the situation at independence when the agricultural products were the main export commodities. Manufacturing exports are negligible. This has left the economy vulnerable to fluctuations in world commodity prices. European countries have been the main market destinations for Mauritanian iron ore - Belgium, France, Italy and the United Kingdom accounted for 82 per cent of all iron ore exports in 1987 - and Japan, the Republic of Korea, the USSR, Italy and Spain are the main purchasers of fish products. The narrow base of these export markets has compounded the problem of the narrow range of export products, giving Mauritania little bargaining power with its trading partners. At the same time Mauritania has to import much of its food needs (28.7 per cent of imports in 1986 - 44 per cent in 1984), most of its consumer products (13.6 per cent of imports in 1986) and all of its fuel (21.7 per cent of imports in 1986 - 26.3 per cent in 1984).

In the period up to 1975, the balance of trade was positive but the subsequent fall in iron ore prices, the rising price and consumption of oil and consumer products shifted the terms of trade against Mauritania and led to mounting trade deficits which peaked at \$186.5 million in 1982.^{1/} It was not until 1983, when increasing exports of fish offset the poor performance of iron ore exports and the government's austerity measures had brought imports under control, that Mauritania achieved a trade surplus. In 1985, a 22 per cent devaluation of the Ouguiya and the declining price of oil reinforced these trends and further boosted the balance of trade surplus. The prospects for a continued balance of trade surplus are good but the government must contain domestic consumption of imported consumer goods.

The balance of payments, on the other hand, is likely to remain a matter of concern for some time to come. The current account deficit widened significantly in the 1970s and has amounted to 25-40 per cent of GDP during the 1980s. Service charges on debts built up during the ambitious government development programmes of the 1970s, including those associated with the public sector enterprises, have been the main drain on the current account, together with the balance of trade in the late 1970s and early 1980s.

International debt is one of the most pressing problems facing the economy. The total disbursed debt amounted to \$1,761.1 million at the end of 1986. Of this long-term publically guaranteed debt was \$1,637.2 million, short-term debt was \$87.8 million and IMF credit utilization \$36.1 million. The ratio of debt to GNP, 234 per cent, is the second highest in Africa, though debt servicing requirements, amounting to \$78.4 million in 1985, 18.7 per cent of exports, are relatively low due to the concessionary terms of much of the outstanding debt and extensive debt relief. Nevertheless, the problem is so serious that it has virtually been taken out of all economic considerations because any attempt to redress the problem would prevent the government tackling other important development objectives. In recognition of the government's efforts to redress current account and budget deficits, further co-operation can be expected, but in view of the existing debt burden there is a need to ensure that future development aid is given in the form of grants or as generous concessionary loans.

The persistent budgetary deficit, low levels of domestic saving have forced the government to depend heavily on foreign aid to finance its investment programmes and development strategy. Fortunately, although the level of disbursements and commitments have fallen off during the 1980s, sufficient funds have been forthcoming. Fixed investment averaged 34 per cent of GDP in the period 1980-1984, a level similar to that achieved in the mid-1970s. Apart from 1981 and 1982, when private sector investment accounted for 16.4 per cent and 11.7 per cent respectively of total fixed investment, the private sector's contribution has been less than 8 per cent of total fixed investment between 1975 and 1983. Due to budgetary constraints, 94 per cent of the public sector investment undertaken between 1980 and 1984 was financed by foreign grants and loans. The government has sought to raise the level of

^{1/} In 1982 the current deficit reached \$277 million according to IMF statistics.

domestic savings to 15 per cent of GDP, by budgetary control, maintaining interest rates at real levels and reforming the banking system. Foreign donors would remain the principal source of investment funds well into the future with gross foreign assistance averaging \$211 million per year in the period 1989-1995, of which \$161 million would be project aid, according to World Bank forecasts.

OPEC countries and agencies are the most important source of external assistance for Mauritania. According to OECD, the United States is the biggest single bilateral donor followed by France. The amount of external assistance has fallen significantly since the early 1980s, though it recovered in 1985 following IMF endorsement of the recovery programme and debt rescheduling. Dependence on OPEC funding is likely to persist.

Management of the investment programme has been greatly assisted by the implementation of a consolidated investment budget covering internal as well as external resources for the first time in 1987. The public investment programme concentrates on the rehabilitation of existing assets, priority infrastructural projects and projects in which a quick yield can be expected. In 1988 the investment budget totalled UM17,357 million, compared with UM12,522 million in 1987, of which 38 per cent was targeted for rural development, 25 per cent for fishing and industry - though industry's share was less than a quarter of this - 21.5 per cent for infrastructure and 15.5 per cent for other projects. Funds targeted for the industrial sector are to be used for rehabilitation of existing public sector enterprises, the development of infrastructure and services. Direct investment in industrial projects has been left to the private sector. The Economic Revival Programme for 1989-1991 accords priority to investment in the rural sector, land development and industrial development.

1.3 An overview of the manufacturing sector

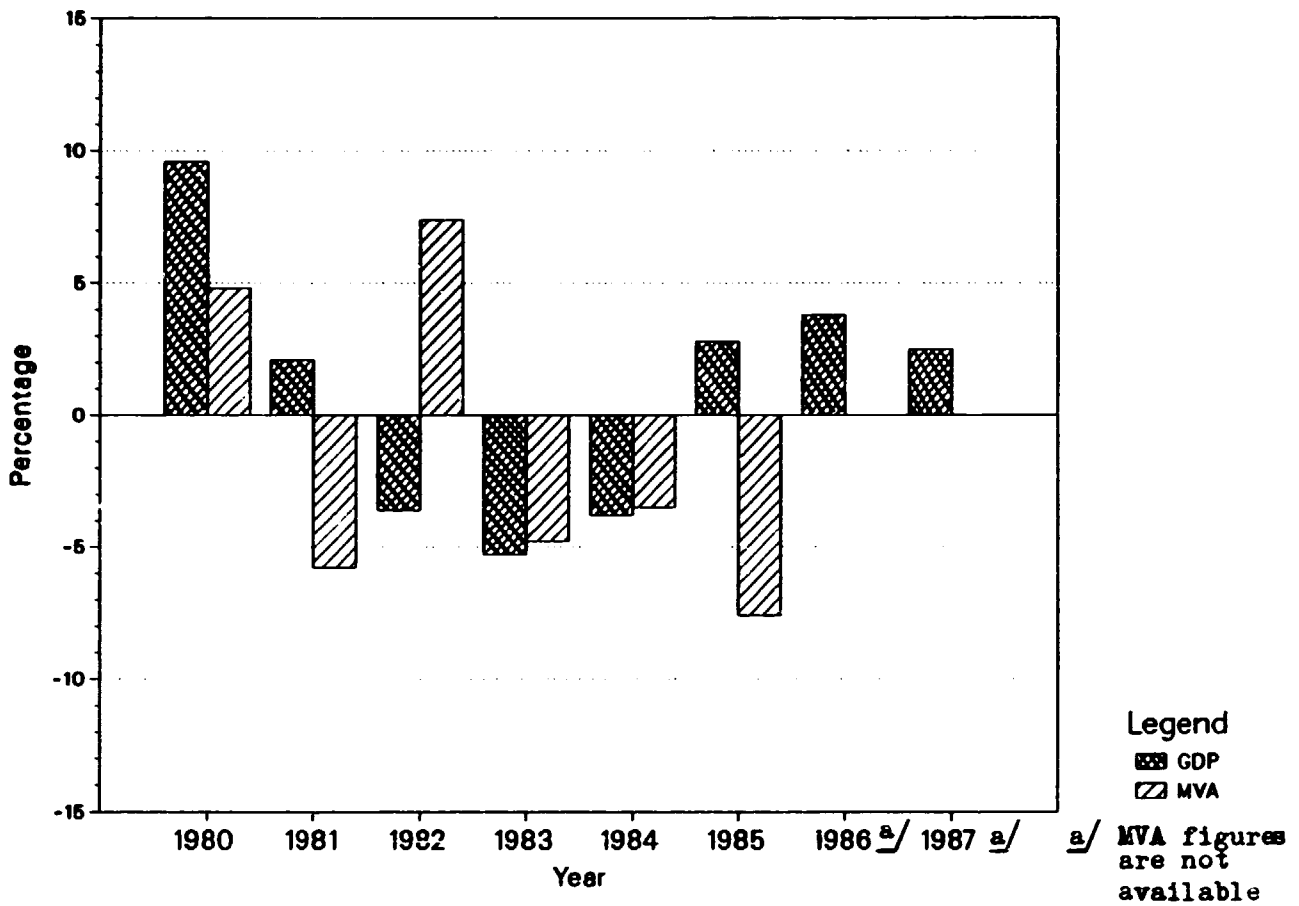
At Independence in 1961, Mauritania inherited an incipient industrial sector. There were no large-scale industrial plants and production was centred on small-scale private sector enterprises, many of them operating at an artisanal level. During the 1960s, a period when the Mauritanian economy grew rapidly in real terms, the industrial sector continued to lag behind the dominant mining sector. When the government instituted a census of the industrial sector with the assistance of UNIDO in 1974, the industrial sector, according to a broad definition, encompassed 76 companies. However, 27 of these were public works and construction companies, with well over three quarters of the work force in the secondary sector, 6 were engaged in the repair of mechanical goods produced outside the country and 14 were transport companies.

Of the 34 companies engaged in manufacturing - many of whom were also operating in the service sector through repair and maintenance work - the strongest branch was wood and metal working which fed directly into the construction industry. There were only eight enterprises with linkages into agriculture besides those involved in fish processing and none with linkages into the mining sector. In the census year, 1974, manufacturing industry, together with the energy sector and handicrafts, contributed only 2.9 per cent of GDP and the fish processing sector contributed an additional 0.9 per cent.

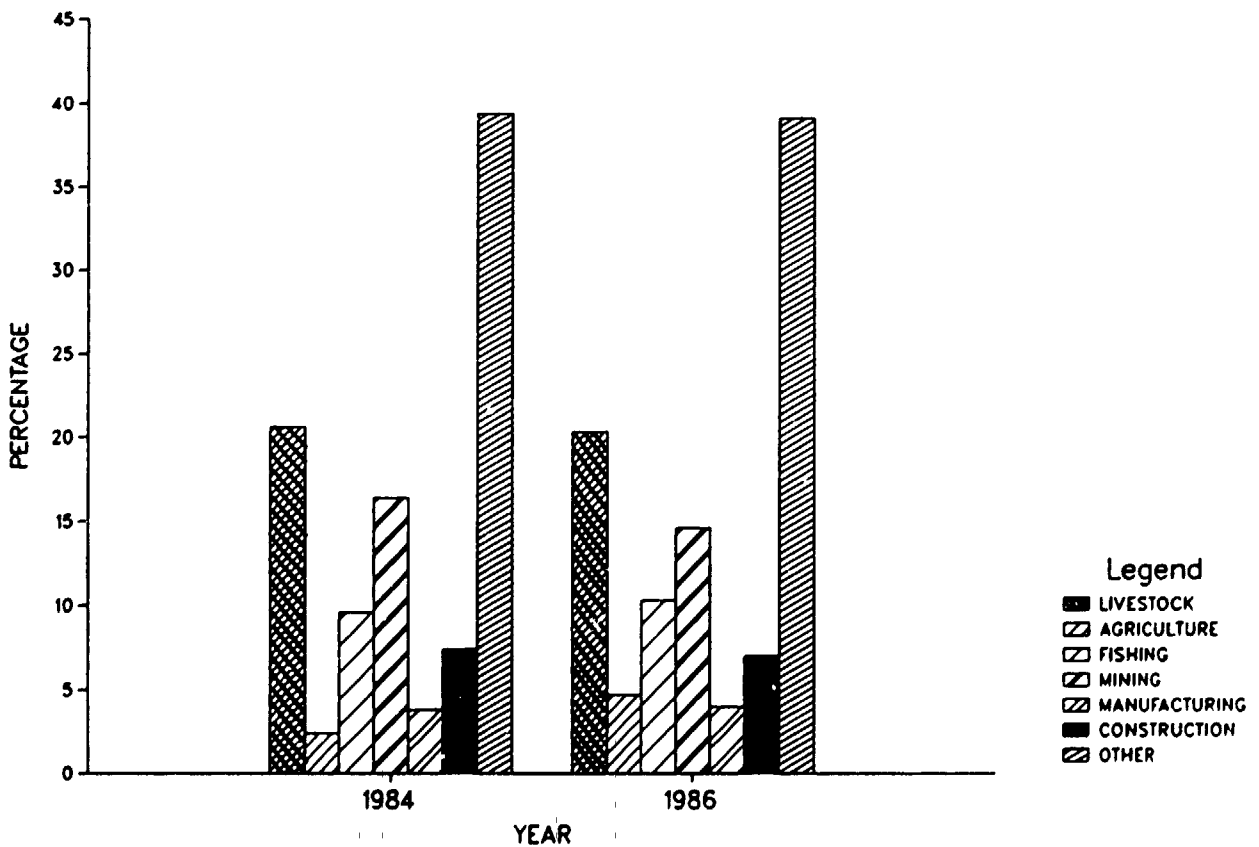
Fish processing emerged as the single most important manufacturing activity in Mauritania. A sugar refinery was completed in 1977, but ceased to exist after one year of operation. A cement work unit was completed in 1981, and small-scale import substitution was planned in a clinker-crushing plant, a gypsum processing plant, a flour-mill and a textile complex.

The Government of Mauritania is no longer placing emphasis on large-scale capital-intensive projects, such as petroleum refinery, but encourages progressive expansion of the private sector in the establishment of small- and medium-scale industrial operations. A major strand of the government policy is directed towards the rationalization of enterprises. Multilateral and bilateral agencies are aiding the industrial restructuring process, with a view to achieving a healthy pace of industrial expansion in Mauritania.

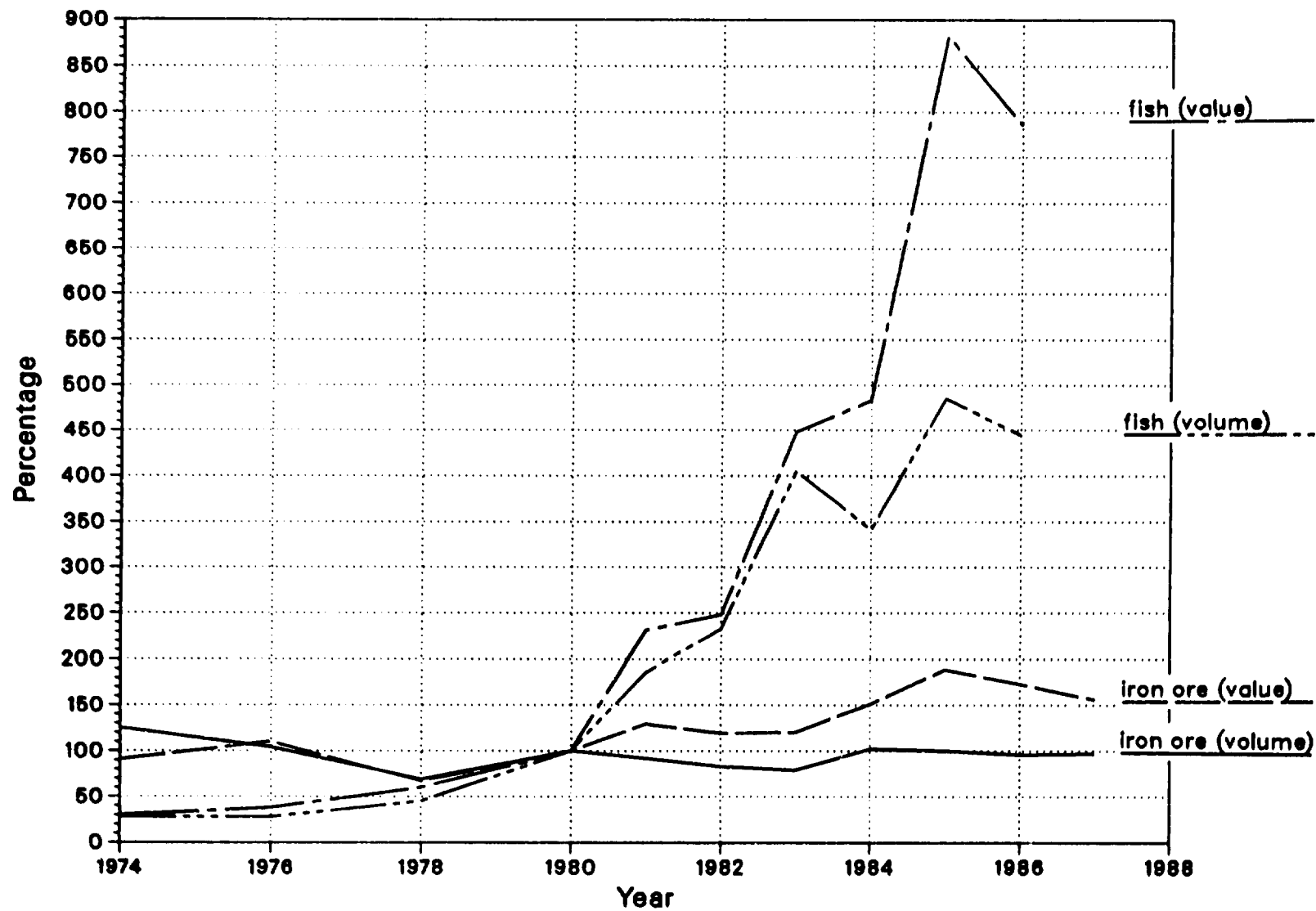
GROWTH RATES OF GDP AND MVA, 1980-1987



DISTRIBUTION OF GDP BY SECTOR OF ORIGIN, 1984 AND 1986

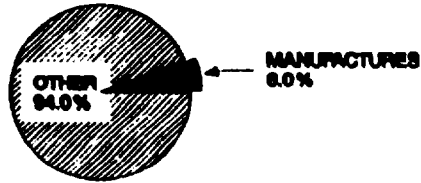


INDEX OF GROWTH IN EXPORTS OF IRON ORE AND FISH, 1974-1987 (1980=100)

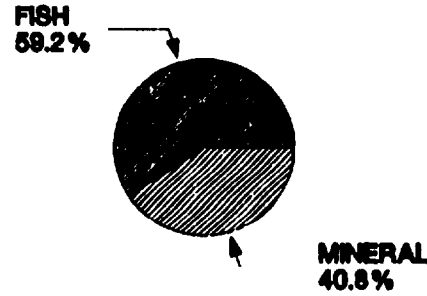


EXPORTS AND IMPORTS, 1986

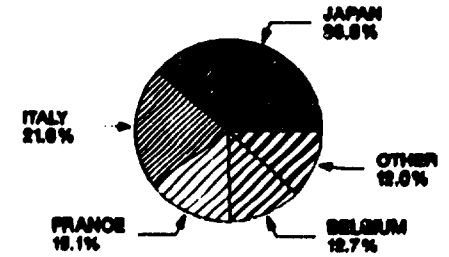
SHARE OF MANUFACTURES
IN TOTAL EXPORTS



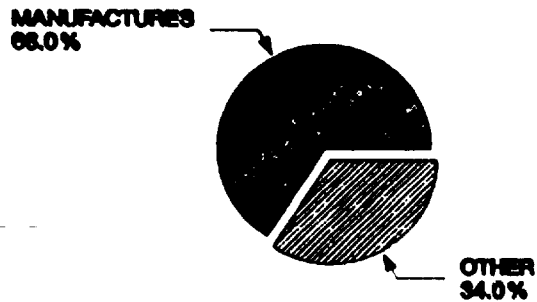
COMPOSITION OF EXPORTS



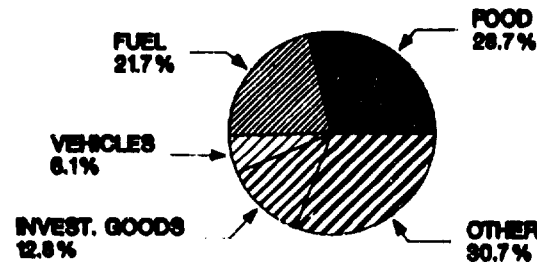
DIRECTION OF EXPORTS



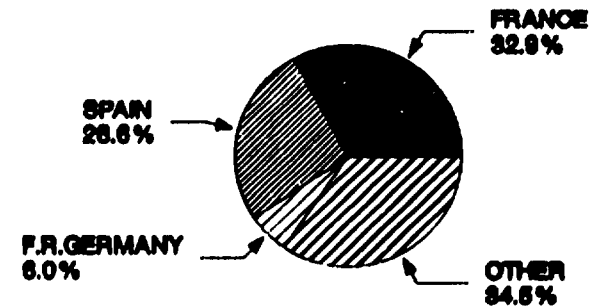
SHARE OF MANUFACTURES
IN TOTAL IMPORTS



COMPOSITION OF IMPORTS



ORIGIN OF IMPORTS



2. STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

2.1 Growth and structural change

The rate of growth of manufacturing value added averaged only 2.5 per cent per year between 1974 and 1978, despite government investment in three large industrial projects. In 1979, the government's policy changed, relying on private sector initiatives, encouraged by tax incentives and easier access to credit. The results of this policy change were, initially, disappointing; manufacturing value added actually fell by 2.5 per cent in real terms between 1979 and 1983 and the manufacturing sectors contribution to GDP declined from 3.3 per cent to 3.1 per cent over the same period. Since 1983, however, the private sector appears to have "taken off", with manufacturing value added rising by 5 per cent per year in real terms in 1984 and 1985. This has largely been the result of an increase in the number of private sector investments and consolidation of manufacturing projects initiated in the early 1980s.

With the reorientation of policy towards industrial development through private sector the government attempted to stimulate faster growth. The results were, initially, disappointing. In 1984 and 1985, however, the manufacturing and handicrafts sector witnessed annual growth rates of 5 per cent. This surge in production corresponded with the emergence of a number of private sector large-scale industrial enterprises: among them a biscuit factory, a milk processing plant, a soap and hygienic products plant and a shoe factory. Since 1985, the pace of industrial development has accelerated. Statistics of aggregate manufacturing value added are not yet available but the fact that the number of manufacturing enterprises has more than doubled from 35 in 1986 to 76 in mid-1988 was indicative of a spurt in private sector initiatives. Such a rapid rate of enterprise formation underlines the business community's confidence in the government's approach towards changing industrial realities and entrepreneurs' ability to respond to new opportunities and incentives.

In terms of the growth of manufacturing value added the fish processing branch has seen more consistent growth since 1979, with the annual growth rate averaging 7.2 per cent between 1979 and 1985. However, this must be seen in the context of the low base from which a spurt in the fish processing took place. Furthermore, the development of the fish processing industry was, in contrast to the development of other industrial branches, largely a result of government initiative. By 1987 only two fish processing companies existed with wholly private capital and the creation of both of these pre-dates 1979. Six of the nine enterprises in this branch in 1987 were joint ventures between the State and foreign governments. Further growth in this branch will, moreover, continue to depend on government intervention and support.

The food and beverages branch dominates the industrial sector, accounting for 55.9 per cent of MVA in 1984, the only year for which data on the structure of MVA is available (Table 2.1). For national accounts purposes the water and electrical generating industries are included in the manufacturing sector. Together they are the second most important branch contributing 20.1 per cent of MVA in 1984. Other important sectors are: metal products (9.4 per cent of MVA in 1984), plastic and chemical products (8.4 per cent), non-metallic minerals (3.3 per cent) and textiles and carpets (2.1 per cent).

Table 2.1: Composition of MVA by subsector of manufacturing, 1984
(UM million and percentage)

		UM million	Per cent
ISIC 31	Food industries ^{a/}	780.3	55.9
	Butchers	308.0	22.1
	Bakers	202.0	14.5
	Milling	109.0	7.8
	Rice processing	23.1	1.6
	Other	138.2	9.9
ISIC 38	Metal products	131.4	9.4
ISIC 35	Chemical and plastic products	117.4	8.4
ISIC 36	Non-metallic mineral products	46.0	3.3
ISIC 32	Textiles, clothing and leather	32.3	2.3
ISIC 39	Miscellaneous other industries	8.4	0.6
	Water and electricity	281.1	20.1

Source: Unpublished statistics of the Service de la Synthèse et des Comptes Nationaux.

a/ Excluding fish processing.

A register of manufacturing enterprises in mid-1988 indicates that the food and beverages branch has continued to grow rapidly through the 1980s. Between 1986 and 1987 the number of enterprises in this branch doubled from 8 to 16 and it remains the leading branch on the criteria of number of enterprises. The textiles branch has also witnessed significant growth with seven companies entering production in between 1986 and 1988.

Statistics on the branch distribution of value added are lacking for the small-scale industries. However, an unpublished survey of the informal sector in Nouakchott undertaken in 1985 provides some indication of the branch distribution of industrial activity (Table 2.2). Tailoring is clearly the dominant activity, representing 48 per cent of the 2,401 informal sector enterprises engaged in manufacturing activities. Of lesser importance are butchers, jewellers, metal and woodworking and the manufacture of leather goods. The 12,473 informal sector enterprises identified, of which 10,072, 80.7 per cent, were classified as service sector enterprises, were thought to generate about 30,000 jobs in the Capital.

The need for generating employment opportunities is greatly felt at a time when the public sector is streamlining its labour force. The private sector is expected to play a significant role in generating employment opportunities and enhancing industrial efficiency.

Table 2.2: Informal sector enterprises, Nouakchott, 1986

	Number of enterprises
Handicraft and artisanal enterprises	2,401
Tailor shops	1,156
Weaving	5
Leather goods	102
Cloth dyeing	52
Wood and metal workshops	199
Rug weaving	21
Jewellery	320
Butchers	368
Small flour mill shops	135
Bakeries	43
Services	1,586
Retailers	8,486
Total	12,473

Source: Direction de la Statistique et de la Comptabilité, unpublished survey of the informal sector in Nouakchott, 1985.

2.2. Performance and efficiency

The performance of the manufacturing sector has been weak in terms of manufacturing value added. This reflects not only the slow growth of the manufacturing sector in terms of new enterprises but also the low value added achieved by the industrial enterprises in the modern sector. The average percentage of value added in gross turnover for 22 of the enterprises surveyed was 38.5 per cent in 1987. This reflects the limited degree of transformation in many of the industrial enterprises. The activities of both SOMAUGRAL and SOMIS are, essentially, restricted to the packaging of imported products and their value added is correspondingly low, 15 and 28 per cent respectively. CIPROCHEMIE, too, undertakes little transformation of its basic materials, most of which are imported. Inevitably, value added is high in those enterprises which undertake transformation of local raw materials - conspicuously, SIRCA, the tile manufacturing plant which uses locally mined gypsum - though a number of other plants, such as RECOME, MAPROMA and most of the enterprises within the food and beverages branch, do register significant levels of value added through the transformation or assembly of semi-finished goods.

There has been no systematic survey of rates of capacity utilization in Mauritania's industrial sector. However, an Industrial Rehabilitation Survey undertaken by the Ministry of Industry and Mines in 1987 and a study of private sector enterprises in 1986 financed by USAID provide details on the financial status, manufacturing value added and foreign exchange savings of 24 of Mauritania's largest industrial enterprises (Table 2.3).

Of the 18 enterprises for which statistics were available in the survey year, four companies made losses and one of these, MIE, the textile factory with mixed capital, made losses amounting to almost half its turnover. The profit rate, profits as a percentage of turnover, is extremely low among the remaining 14 enterprises averaging only 8.7 per cent. Only three companies, the Société Mauritanienne des Articles de Ménage (SOMAM), which produces metal plates and dishes, the Société Mauritanienne pour le Développement Rural et l'Elevage (SOMADERE), the animal feed factory, and the Société Mauritanienne d' Allumettes (SOMAUURAL), which used to produce matches but now restricts its activities to importing and distributing imported products, had profit rates in excess of 10 per cent. Rates of return on investments were also low, averaging 7.95 per cent for the 12 profit making companies for which statistics are available. Only four companies, FAMO, the pasta factory, SOMAM, Répresentation de Commerce Général et Industrie de Mauritanie (RECOGIM), the foam mattress factory, and the Société Mauritanienne d'Industrie Générale de Mauritanie (SOMIGEM), the soap factory, had rates of return on investment exceeding 10 per cent. Eight of the fourteen companies registering profits made rates of return lower than the prevailing rate of interest for deposits in the commercial banks.

Admittedly, some of the companies included within the sample are new and have suffered technical and managerial start-up problems, besides finding it difficult to penetrate a market dominated by well established imported products. The biscuit factory, Société Industrielle de Biscuiterie (IBS), for instance, was only founded in 1985, the year before the survey. With time the financial situation of these young companies will probably improve. Furthermore, the statistics, particularly those giving details of profits, must be used with caution and may not be entirely representative of the company's financial situation. Nevertheless, low rates of return are a major constraint on the development of the industrial sector. They act as a disincentive to potential investors who can secure greater returns in commercial activities. SOMAUURAL, for instance, was able to turn a loss making match factory into a profitable concern by abandoning production and restricting its activities to importing. Low rates of return also restrict the companies' ability to self-finance expansion and diversification.

Table 2.3: Performance of selected companies: Turnover, profit, manufacturing value added and foreign exchange savings (1985-1987)
(UM millions unless otherwise indicated)

Enterprise	Survey Date	Turnover	Profit	MVA	FES	Investment	Employees	Per cent				
								Profit/Investment	Profit/Turnover	Invest/empl.	Turnover/empl.	MVA/Turnover
Food Industries												
COGRITEM	1986	51.19	0.20	21.29	15.37	51.00	35	0.39	0.39	1.46	1.46	41
FAMO	1985	209.36	18.17	84.43	124.95	143.00	65	12.71	8.68	2.20	3.22	40
IBS	1986	74.84	- 1.96	24.76	13.14	76.00	40	...	...	1.90	1.87	33
SIAM	1986	175.00	17.50	...	...	385.40	100	9.44	10.00	3.85	1.75	...
SOBOMA	1985	126.09	0.87	47.33	8.34	96.00	72	0.91	0.69	1.33	1.75	37
SOMEB	1986	69.06	...	31.57	-12.04	72.00	72	...	...	1.00	0.96	45
SONIS	1986	870.00	...	247.64	216.50	...	432	...	...	...	2.01	28
Animal feed												
SOMADERE	1986	105.00	10.80	...	...	100.00	42-74	10.80	10.29	1.72	1.72	...
Metal Products												
SONAM	1986	83.82	11.29	27.34	- 8.41	49.00	32	23.05	13.46	1.53	2.62	33
SONIPEX	1985	25.77	- 4.94	9.35	- 3.48	71.00	22	...	...	3.27	1.17	36
Chemical and Plastic Products												
CYPROCHEMIE	1985	36.28	...	7.93	- 2.66	85.00	21	...	...	4.05	1.73	21
MAPROMA	1986	67.00	...	35.14	- 1.94	41.00	38	...	...	1.08	1.76	52
RECOGIM	1985	75.09	2.31	25.13	- 6.89	13.00	31	17.77	3.08	0.42	2.42	34
SDIC	1986	62.38	2.84	23.31	...	60.00	39	4.73	4.55	1.54	1.60	...
37.3												
SNCI	1985	87.68	2.18	35.40	17.24	11.00	29	4.22	2.49	0.38	3.37	40
SOMAUROL	1985	8.73	4.69	1.37	- 6.67	78.00	...	6.01	53.72	...	...	15
SONIGEM	1984	186.43	7.50	59.42	-37.92	65.00	51	11.54	4.02	1.27	3.66	31
Non-Metallic Mineral Products												
SCM	1985	487.66	...	171.98	...	487.66	58	...	...	8.41	8.40	35
SANIA	1986	29.52	...	...	...	83.00	...	...	...	...	...	25
SIRCA	1985	10.91	-2.66	8.28	5.39	45.00	...	...	...	...	...	76
Textiles and clothing												
NIE	1985	80.85	-39.00	26.70	15.69	104.00	43	...	...	2.42	1.88	33
SONIC	1986	58.81	2.07	26.92	1.06	37.00	41	5.59	3.52	0.90	1.45	46
Divers Manufacturing Industries												
RECOME	1986	45.10	0.95	15.29	108.72	30.00	28	3.17	2.11	1.07	1.61	66
UPM	1983	19.55	0.86	8.49	- 1.79	90.00	50	0.01	0.43	1.90	0.39	43

Source: Based on "Industrial Rehabilitation Study", Ministère de l'Industrie et des Mines, 1987, and USAID (Mauritania) Investment Climate Assessment and Private Sector Survey, 1986, Vol II, pp. 24-48.

A number of previous studies have identified low rates of capacity utilization as a factor leading to the low returns on investment. In some cases, such as La Mauritanienne des Produits Manufacturés (MAPROMA), the soap factory, low capacity utilization rates stem from the fact that plant capacity exceeds the size of the local market. This may be unavoidable in highly capital-intensive production processes such as those employed by the chemical and basic metal industries. Expansion into an international market would absorb excess capacity but, in the case of MAPROMA, the plant would not be competitive outside customs protection afforded by the government. An alternative is to diversify the products made from existing plant: a strategy successfully implemented by the Comptoir Industriel de Produits Chimiques et d'Entretien (CIPROCHEMIE), a chemicals factory whose products range from detergents to pesticides and aerosols.

Low returns also have a feedback effect, reducing liquidity and thus the company's ability to purchase necessary materials, maintain adequate stocks and rehabilitate existing plant. The deterioration of plant in operation since 1972 was, for instance, a major factor in SOMAURAL's decision to stop production. A shortage of technical staff, leading to inadequate maintenance and repair services have also led to irregular production. The choice of appropriate, simple technology is a short term solution. In the longer term the government should take steps to ensure the availability of adequate skilled labour and technical staff.

The fish processing sector has also been plagued by low capacity utilization rates. In the 1970s approximately 90 per cent of the catch was processed at sea in large industrial fishing vessels. With the imposition of mandatory onshore processing of fish caught within Mauritanian waters in 1982, idle capacity was brought into use, but only temporarily. As the new joint ventures set up between the State and foreign governments established processing facilities of their own, in response to the government's requirement that fishing fleets invest in onshore facilities, capacity increased rapidly in the mid-1980s. Consequently, capacity utilization rates have fallen. At current rates of growth of the fish catch, capacity is likely to remain underutilized well into the next decade (Table 2.4). If one considers that most of the fleets operating in Mauritanian waters are equipped with on-board processing facilities, the under-utilization of capacity is even more extreme. Inevitably, the under-utilization of capacity has impaired the profitability of joint ventures within the fish processing sector.

Table 2.4: Estimated rates of use of onshore plants in the fish processing sector, 1984-1985

	Capacity (tons)	Utilization rates	
		1984	1985
Freezing	86,250	14.5	64.5
Storage	240,000	25.8	46.7

Source: Estimates provided by the Ministère des Pêches et de l'Economie Maritime cited in UNIDO, Initiative programmes for West African Industrial Fisheries Systems, 1989.

Low capacity utilization rates may also derive from exogenous factors. The Société pour le Développement Industriel et Commercial (SDIC), for instance, has complained that the irregular electricity supply prevents the plant achieving full production. Enterprises dependent on imported raw materials and spare parts have also complained that a shortage of foreign exchange and delays in customs clearance have led to production stoppages, though these difficulties have largely been overcome since the promulgation of the Investment Code in 1979 and the government's decision to actively encourage private initiative. Where deliveries remain a problem companies should ensure that they maintain adequate stocks and manage their ordering procedures with care.

Labour productivity, measured as sales per employee, was, as one might expect, highest in the capital-intensive cement bagging factory, Ciment de Mauritanie (SCM) and the cardboard packaging factory, the Société Industrielle de Plastique et d'Emballage (SIPE). Labour productivity averaged UM2,609,500 per employee across the sample of 21 companies for which the surveys provided data, with productivity below average in the food industry branch and the chemicals industry. It is noteworthy that three of the four companies suffering operating losses had labour productivity levels well below average and there is no data to assess the level of labour productivity in the fourth enterprise. The generally low level of labour productivity was, in part due to the low level of capacity utilization. It may also reflect overmanning. This was a particular problem in the State mining corporation, SNIM. In 1987 the workforce was cut by almost 20 per cent without adversely affecting production. The Société Mauritanienne des Industries du Sucre (SOMIS), the largest single employer in the survey, has, nevertheless, managed to maintain relatively high labour productivity. Management in both the State and private sectors is aware that there is a need to streamline the production process reducing costs, not only by shedding excess labour but also by the elimination of wasteful production methods.

The dependence of the chemical and metallic products industries on imported semi-finished goods is indicated by their negative foreign exchange savings. Only one of the eight enterprises studied in these sectors actually saves more foreign exchange through its operations than it would cost to import finished goods at world market prices. Both the Union des Papeteries de Mauritanie (UPM), which makes paper products, and the Société Mauritanienne des Eaux de Banichab (SOMEB), the water bottling plant, also show negative foreign exchange savings. For a country such as Mauritania, suffering an acute shortage of foreign exchange, such enterprises are a heavy burden and can only be sustained by protective measures. Some degree of competition, introduced by the lowering of customs barriers, may stimulate cost cutting exercises within the enterprise and linkages to less costly local suppliers. In the long-term, the elimination of trade barriers will encourage the development of industries with a comparative advantage, in the local market at least, and thereby provide Mauritania with a stronger, more resilient industrial base.

In terms of generating employment too, the manufacturing sector has performed below expectations. In 1981 employment in the manufacturing and handicraft sectors totalled 6,054 persons, seventy per cent of whom were employed in enterprises employing less than 20 persons and almost half in enterprises employing only one person. Medium-scale, modern enterprises have proved a relatively costly and unsuccessful means of generating employment in

the secondary sector. The 24 enterprises surveyed in 1985-1986 employed a total workforce of 1,728 persons. In contrast, 50,000 persons were thought to be employed in the informal handicrafts sector, working at an artisanal level, in 1986.

The low levels of employment in the modern sector reflect the capital-intensive nature of these enterprises in comparison with the handicrafts sector. The investment per permanent employee in 20 modern, medium-scale enterprises surveyed in 1985-1986 was UM2.24 million. As a result the medium- and large-scale enterprises proved an expensive means of generating employment. The government has estimated that the UM1.4 billion invested by the 18 manufacturing plants up to 1985 created only 800 jobs. Entrepreneurs have consistently preferred to install technology, almost invariably imported technology, at the expense of creating jobs. To some extent this reflects the market role of the medium-scale enterprise, catering as it does for the affluent end of the market in consumer durables and goods, such as plastic, chemical and metal products, that demand a high degree of automation and specialist machinery. On the other hand, the government is aware that the present Investment Code effectively subsidizes fixed investment and is determined to modify its structure to give additional incentives to enterprises creating jobs.

Manufacturing activities in Mauritania have developed largely according to the direct consumption requirements of the domestic market. There has been little attempt to add value to locally-available raw materials. Industries have rather, remained dependent on imported intermediate goods. Linkages within the industrial sector are also weak, with few enterprises producing basic materials or capital goods. Self-sustained industrial growth ultimately depends on the strengthening of linkages within the industrial sector and between industry and the other productive sectors of the economy to achieve import substitution and export promotion.

2.3 Exports and imports of manufactured goods

According to statistics published by the Direction d'Etudes Economiques fish and mineral products are Mauritania's only exports, amounting to UM15,358 million, 59.2 per cent of total exports, and UM10,592 million, 40.8 per cent, respectively in 1986. The vast majority of fish exports undergo little processing other than gutting and freezing. Although the volume of fish products undergoing a greater degree of transformation has increased since 1980, with exports of fish meal rising to 29,364 tonnes in 1986, dried and salted fish reaching 604 tonnes and fish oil 2,238 tonnes, but the proportion of these processed products in total exports has actually decreased over the same period from 19.8 to 9.6 per cent. Consequently, only a small proportion of fish exports, approximately 10 per cent of the total, can be included within the category of manufactured goods or processed goods. This is also true of the iron ore exports. Iron ore from the mines at Kedia, near Zouerte, has been exported without processing. The development of the Guelbs deposits at El Rhein necessitates enrichment of the ore and as this comes into full production the proportion of processed iron ore exports will increase, predominating by the early-1990s.

Although no detailed breakdown of Mauritania's other of manufactured goods are available, analysis of the enterprise level performance reveals that they are limited. Nevertheless, a number of enterprises have succeeded in exporting a proportion of their product in the past. SCM, the cement factory, registered some exports to other West African countries in the early 1980s, though these were actually re-exports since the factory undertakes little transformation of the cement which it imports in bulk from Spain. The high cost of Mauritanian cement relative to competitors in neighbouring countries has led to a significant reduction in this commerce. Also in the early 1980s, the iron and steel foundry at Nouadhibou exported part of its production, largely to West African countries. Exports of steel rods totalled UM67 million in 1981, UM62 million in 1982 and UM50 million in 1983, but subsequently fell off when the steel mill ceased operations in 1984. Under new management, and with production capacity increasing to 8,000 tons of steel bars per year, the Société Arabe de Fer et de l'Acier (SAFA) hopes to export part of its production to Senegal. The refinery also exported petroleum products in 1982 and 1983, UM368 million and UM1,142 million respectively, but ceased to do so when production stopped in July 1983. Following refurbishment, the management anticipated that two-thirds of output would be exported to neighbouring countries. A small quantity of cured animal skins have been exported to neighbouring countries but the trade poorly organized and mostly carried out by ambulant merchants. No other processed agricultural products are exported.

None of the enterprises engaged in the manufacture of consumer goods are export orientated. On the contrary, most produce specifically for the local market which, though limited in scope, offers considerable protection through tariff and non-tariff barriers (Table 2.5). Furthermore, the quality of products destined for consumers is frequently below the standard set by competitors abroad. These companies are, consequently, unable to compete on regional or international markets. Nevertheless, a number of companies - notably COGITREM, FAMO, IBS, MAPROMA, SAMIA, SDIC, SOMAM and SOMEB - do have export potential, and some have noted that their products are sold in neighbouring countries even if they are not exported through official channels.

Table 2.5: Customs protection (nominal) for locally manufactured goods, 1984
(percentage)

Product	Protection	Product	Protection
Mineral water	56	Household soap	104
Iron rods	66	Clothing	83
Shoes	77	Enamelled metal goods	83
Galvanized iron sheets	70	Nails and screws	70
Exercise books	77	Foam mattresses	101
Carbonated drinks	91	Portland cement	49
PVC pipes	30	Paving tiles	30
Blankets	97	Detergents	77
Candles	77	Plastic packaging	83
Polypropylene bags	63	Paints	105

Source: Kanoun, S. Stratégie de Développement Industriel pour la Mauritanie, UNIDO, 1984 (UC/MAU/83/073/11-01).

An expansion of exports will, however, depend on the liberalization of trade relations with neighbouring countries. Although a member of the Communauté Economique de l'Afrique de l'Ouest (CEAO) and the Economic Community of West African States (ECOWAS), both of which are committed to the liberalization of inter-regional trade, Mauritanian businessmen complain that they receive less benefit from these organizations than their neighbours. The reduced tariff between member states under CEAO provisions is approved on an industry by industry basis and, in 1986, only three Mauritanian companies benefited from these protocols in contrast to 120 in Côte d'Ivoire and 60 in Senegal. To benefit from the regional common market terms of ECOWAS 60 per cent of the value added of export products must originate from a member state. Few Mauritanian enterprises are able to fulfil this condition. As a member of Lomé III, Mauritania, may also benefit from privileged access to the EC, but the quality of products and scale of production is unlikely to permit the development of exports in that direction in the near future.

No recent statistics on the volume and composition of imported manufactured products are available. The most detailed statistics available (Table 2.6) indicate that consumer goods, other than foodstuffs, represent a significant proportion (13 per cent in 1986 and 15 per cent in 1985) of imports. Despite the high degree of protection afforded by tariff and non-tariff barriers several entrepreneurs have argued that competition from these imports restricts their market share and that imported products undercut their own, this is particularly true of the enterprises in the chemicals and plastics branch and the food industry. FAMO, for instance, was forced to abandon flour milling in May 1982 because imported flour was cheaper than imported grain.

Table 2.6 The composition of imports, 1985-1986

	1985		1986	
	UM million	Per cent	UM million	Per Cent
Consumer products	9,309	51.8	6,707	42.3
Food products	6,558	36.5	4,553	28.7
Others	2,751	15.3	2,154	13.6
Equipment and transport	1,711	9.5	1,422	8.9
Vehicles	585	3.2	426	2.6
Spare parts and tires	690	3.8	563	3.5
Others	436	2.4	433	2.7
Investment goods	1,786	9.9	2,033	12.8
Construction materials	841	4.6	739	4.6
Equipment	945	5.2	1,294	8.1
Fuel	2,487	13.8	3,439	21.7
Others	2,662	14.8	2,229	14.0
Total	17,955	100.0	15,830	100.0

Source: Direction des Etudes Economiques, Bulletin Trimestriel de Statistique, June 1987, Table 38.

The problem of cheap, in some cases possibly "dumped", imports is aggravated by a considerable contraband trade, thought to amount to 50 per cent of total imports by value, which allows many imported products to avoid customs charges. Both MAPROMA and IBS assert that contraband products erode their market share significantly. In these circumstances greater control of international trade, in particular trade from neighbouring countries, may restore the company's market share. In the long-term, however, companies must reduce costs in order to ensure competitively priced products.

2.4 Ownership and investment patterns

During the mid-1970s, the government regarded the public sector as the driving force of industrial development. It was hoped that the state's ability to mobilize finance for large investment projects would provide Mauritania with the industrial base that the private sector had been unable to achieve. The strategy, embodied in the Third Development Plan (1976-1980), called for the investment of \$548 million - at that time 121 per cent of GDP - in seven large-scale industrial enterprises, all of which were in basic transformation industries. As has already been noted, only three of these projects were ever implemented, and only one, the electric iron furnace, commenced production. Both the sugar and oil refineries subsequently restricted their operations to storage, packaging and distribution.

Consequently, the public sector's contribution to manufacturing value added remains small. The private sector accounted for 95 per cent of MVA in 1985, according to an estimate prepared by a USAID survey. The main wholly State-owned enterprise under public management within the sector is the Société Nationale d'Eau et d'Electricité (SONLEC), the water and electricity generating utility, which is included in the manufacturing sector for the purposes of national accounts, the other is the Société Mauritanienne de Presse et d'Impression (SMPI). Since 1978 the government has systematically reduced its interests in the State-owned companies as a means of generating finance for refurbishment and expansion and, since 1984, as part of a restructuring strategy giving greater freedom to enterprise management and encouraging private investment.

In 1978, the government sold a 29.1 per cent interest in SNIM, which was renamed SNIM-SEM, to Arab financial and mining companies in order to raise funds for the Guelbs development project. Exploitation of the copper deposits at Akjoujt was conceded to the Société Minière d'Inchiri (SAMIN), a new company owned jointly by the state (37.5 per cent) and Arab financial interests, in 1981. Likewise, the gypsum deposits near Nouakchott have been exploited by the Société Arabe des Industries Métallurgiques (SAMIA) which is jointly owned by SNIM-SEM, the previous concessionaire, and the Kuwait Foreign Trading, Contracting and Investment Company.

Within the manufacturing sector, the government re-opened the steel mill, which was closed in 1984, as a new company, the Société du Fer et de l'Acier en Mauritanie (SAFA) with equity participation from the Arab Mining Corporation (Jordan) and the Arab Iron and Steel Corporation (Bahrain). The sugar refinery and sugar packaging plant was restructured as the Société Mauritanienne des Industries du Sucre (SOMIS) with 27 per cent private equity participation. The government has also transferred ownership of the Société National de Confection (SNC) and Office du Tapis Mauritanien (OTM) to the Fond National de Développement (FND) with the intention of later transfer to private ownership. Only the oil refinery has been retained in wholly public ownership but the public company managing the plant, Société Mauritanienne d'Industrie de Raffinage (SOMIR), has been liquidated and a management contract signed with an Algerian company.

In contrast to the divestiture programme in the manufacturing and mining sectors, the government has, throughout the 1980s increased its participation in the fishing processing sector in the absence of significant private sector initiatives. In 1985 the private sector accounted for only 35 per cent of the MVA in fish processing. There were only two private sector companies involved in fish processing in 1986, COMACOP and SIPECO, three others had minority State equity participation and were privately controlled. Following legislation in 1982, which required fish caught in Mauritanian waters to be processed on Mauritanian soil, the government established six joint ventures with foreign governments - Libya (SALIMAUREM), Algeria (ALMAP), Iraq (SIMP), the Soviet Union (MAUSOV), Romania (SIMAR), with private equity participation as well), and Republic of Korea (COMACOP). In four of these enterprises the government is the majority shareholder.

Within the private sector the investment and ownership structure is dominated by the single entrepreneur and family business (Table 2.7). This is particularly true of the artisanal and small business sector. The medium-scale, modern sector enterprises which have been built on more substantial investments have a broader but still limited spread of share ownership. Even the cement factory, established in 1978 with an investment of UM487 million has only 15 shareholders. Restricted share ownership inevitably limits the availability of funds for investments, particularly in a situation where investment funds from banks are limited, as in the 1970s, forcing companies to depend heavily on self-financing as a means of raising capital for business ventures. Wealthy entrepreneurs have, however, participated in the formation of new companies. Etablissement Mohammed Abdallahi, for instance, holds shares in numerous industrial enterprises. In recent years, moreover, the government's programme of divestiture has given entrepreneurs an opportunity to broaden their participation in the industrial sector by purchasing equity in restructured public companies.

Table 2.7: Ownership of selected private sector and mixed capital enterprises, 1985-1987 (selected years)
(percentage)

Enterprise	Date	Share holders	Share of Equity		
			State	Private	Foreign
<u>Food Industries</u>					
COGRITEM	1986	7		100	
FAMO	1986	...		50	50
IBS	1986	7		100	
SLAM	1986	7		90	10
SOBOMA	1986	...		31.7	67.3
SOMEB	1986	1 maj	100.0		
SOMIS	1986		63.3	...	...
<u>Animal feed</u>					
SOMADERE	1986	2 maj		60	40
<u>Fish processing</u>					
ALMAP	1987		51		49
COMACOP	1986	7		100	
MAUSOVE	1987		51		49
MSP	1987		42		58
SALIMAUREN	1987		50		50
SAMIP	1987		51		49
SIMAR	1987		15	36	49
SIFEKO	1986	10		100	
SPPAM	1986		35	65	
<u>Mining Sector</u>					
SNIM-SEM	1986		70.89	0.2	29.91
<u>Basic metal industries</u>					
SAFA	1986		33.3		66.7
SAMIA	1986		50		50
<u>Metallic Products</u>					
SOMIPEX	1985			100	
Tolerie Abdallah et Freres	1986			100	
<u>Chemical and Plastic Products</u>					
CIPROCHEMIE	1985	3		100	
MAPROMA	1986	10-15		100	
RECOGIM	1985				
SDIC	1986	7		100	
SOMAGAZ	1986		34	33	33
SOMIGEM	1984	3		100	
<u>Non-Metallic Mineral Products</u>					
ITC	1986			100	
SCM	1985	15	...	100	...
SAMIA	1986	33.33			66.7
<u>Textiles and clothing</u>					
Etablissement drame et Freres	1986				
MIE	1985		70b	30	
SOMIC	1986	7-10		100	
<u>Other manufacturing</u>					
UPM	1986			100	
SMPI	1986		100		
SIPE	1986	3		50.75	49.15

Source: Ministry of Industry and Mines, Industrial Rehabilitation Survey, 1987, Annex B, and USAID, Investment Climate Assessment and Private Sector Survey, 1986, Volume II, pp. 14-48.

Another recent feature of investment patterns, again encouraged by the government's divestiture programme, has been the growth of foreign participation in local business ventures. Since 1978, private sector financiers have played a major role in the formation of new enterprises in the mining sector and the refurbishment of the iron and steel foundry. Foreign investors have also been attracted to new private sector ventures. FAMO, the flour milling and pasta manufacturing enterprise founded in 1981, for instance, has 50 per cent Moroccan equity participation and SLAM, the milk factory founded in 1985, has 10 per cent French share holding.

Nevertheless, there is considerable opportunity for increasing the level of foreign participation in existing and future developments. The government is currently investigating means of attracting foreign capital, preferably in the form of joint ventures with local entrepreneurs, through the proposed new Investment Code. No wholly owned subsidiary of foreign company exists at present and such enterprises, while they may present advantages from the point of view of increasing output and employment, are unlikely to present the same benefits as joint ventures which develop local managerial expertise. Licensing agreements also provide an opportunity for local enterprises to diversify the range of their products, as SOBOMA has achieved through its licence to produce Coca-Cola, and encourage the transfer of technology and expertise. They may also form the foundation of a joint venture between local and foreign investors.

2.5 Size and geographic distribution of manufacturing enterprises

The branch distribution of enterprises employing more than twenty persons suggests the preponderance of the food industry branch in 1980. Details of the manufacturing value added, gross output and investment by branch of those enterprises identified by a survey of enterprises conducted in 1980, are not available.

The survey of the industrial sector in 1980, which the government intended as a base document to review the progress of the private sector following the promulgation of the Investment Code in 1979, indicated that the sector was dominated by small-scale enterprises (see Annex Table A-1). The survey identified 3,169 enterprises, 85.2 per cent of which employed only the proprietor. There were only 24 enterprises which employed more than 20 persons and these had a work force of 1,800 persons, 29.7 per cent of the total work force employed in the industrial and handicrafts sector. All but two of these enterprises employed less than one hundred persons.

It is government policy to encourage the geographical dispersal of industrial activity in order to promote balanced economic growth and secure an equal distribution of economic benefits. Medium-scale industrial enterprises have, however, developed at two poles, Nouakchott in the south and Nouadhibou in the north, with little in between or in the towns of the Senegal River basin. In 1987, 34 of Mauritania's medium-scale manufacturing enterprises were located in Nouakchott, four in Nouadhibou and only one outside the two poles, at Beni-Chaab. Small-scale industrial enterprises are, according to the 1980 survey, more evenly distributed (see Annex Table A-3). The dispersal of artisanal and single employee enterprises underlines their role in the development of industry in the market towns in rural areas.

3. SUB-SECTORAL PROBLEMS AND PERSPECTIVES

3.1 Food and beverages

The processing of basic foods was one of the first manufacturing sub-sectors to develop in Mauritania and it remains one of the most important branches of manufacturing activities. According to official statistics, food processing represented 55.9 per cent of the value added by manufacturing industries, excluding mining, fishing and fish processing, but including energy and water production in 1984. Of this, a large part was produced by small-scale butchers and bakeries which have not involved significant investment, nor taken place on a scale sufficiently large to be properly termed industrial operations. The majority of industrial enterprises in this sub-sector transform imported raw materials, with the notable exception of fish processing industry, certain dairies, and a mineral water bottling plant. There is, however, considerable potential for the strengthening of linkages between the food processing industries and the agricultural sector and the extension of processing industries based on imported intermediate products and the development of downstream activities.

Cereals processing has, traditionally, been an artisanal industry in Mauritania, with small flour mills, often hand powered, meeting the needs of both the rural and urban population. According to a survey of the informal sector in Nouakchott there were 135 such flour mills in the capital in 1986. In 1981, an industrial flour mill, FAMO Mauritanie, was established by private shareholders, with 50 per cent of the equity held by Mauritians - of which half is held by the SOMIPEX, a private concern producing fences and wire products - and the remainder by Moroccan businessmen. The plant had capacity to produce 80,000 tonnes of flour per year and depended on imported wheat grain. Since May 1982, however, the mill has been closed because the price of imported grain exceeded that of imported flour. This differential has affected the artisanal operators but they, unlike the industrial mill, have closer links with domestic agriculture and the processing of traditional grains. At present levels of domestic wheat production there is little hope that the FAMO mill can resume production using domestic raw materials and the continued low price of flour renders the use of imported grain uncompetitive.

The major industrial use of processed cereal products is in the production of bread and pasta. There are no industrial bakeries in Mauritania. Production is centred on a large number of small-scale artisanal enterprises: in 1987 the government accorded licences to almost 100 such operations. Pasta is produced by FAMO. The factory has a capacity of 6,000 tons per year and, since the closure of flour processing plant, uses imported flour. The products have secured a large share of the market despite competition from imported products. Another private enterprise, created in 1985, the Société Industrielle de Biscuiterie, produces sweet and savoury biscuits using imported flour. This factory has had technical and managerial start-up difficulties, but, nevertheless, has secured a strong market presence even though the company has suffered from the competition of illegally imported goods. Total production costs are some 20 per cent higher than the cost of equivalent imported products. There is clearly scope for reducing input costs.

A sugar refinery was set up in 1977 as part of the government's strategy of industrialization through the development of a basic industrial infrastructure. However, without a domestic source of raw sugar the company is dependent on imports and with low market prices for sugar the cost of refining exceeded the cost of imports. Consequently, the refinery has never been brought into operation and the enterprise limits its activities to the production of sugar cubes from imported sugar and packaging. Even in these restricted operations the company has suffered technical difficulties that have reduced levels of capacity utilization. The company's operations are further constrained by its dependence on the Société Nationale d'Import et d'Export (SOMINEX), which holds a monopoly on imports of sugar. Restructured as a mixed equity company, the Société Mauritanienne des Industries du Sucre (SOMIS), in 1984, the government has sought to rehabilitate the company and, if it can be justified financially, bring existing plant capacity into use. A pre-feasibility report suggested that the rehabilitation of the refinery would create approximately 200 jobs and make a significant, \$7.6 million per year, contribution to foreign exchange savings. The plant might, furthermore, facilitate downstream industrial activities, such as the production of ethyl alcohol and animal feed and fertilizer. UNIDO assistance has been requested, but the project is in abeyance pending a UNDP review.

A higher degree of processing is achieved in the Compagnie Générale des Industries de Transformation et de Representation de Mauritanie (COGITREM), which produces and markets boiled sweets, toffees, assorted candies and, more recently, soup cubes under its own brand name. Established as a private company in 1982, COGITREM has achieved a strong market position by offering popular products at a competitive price and has export potential, if production costs can be cut. The company's success indicates the potential of Mauritania's narrow market if suitable products and pricing structures can be achieved. Further developments, under private sector initiative, are likely in the food processing industry. A number of entrepreneurs have shown interest in the production of soup cubes which have proved popular on the domestic market. Other processed and prepared foods are likely to follow as eating habits are transformed by the process of urbanization.

The processing of dairy products is also heavily dependent on imported basic materials. The Société Laitiere de Mauritanie, founded with private capital in 1985, produced 10,000 litres of milk per day in mid-1986 and, with strong local demand, anticipated raising production to 50,000 litres per day by installing further packaging machinery. Production is limited, however, to the reconstitution of imported powdered milk. In 1987 the company opened a fruit juice plant in order to diversify its sales profile. The products compete effectively with imported fruit juices. Two other enterprises processing dairy products have been established since 1986: SMPL, which produces yoghurts, cheese and a range of other dairy products, and SMIL. They are also heavily dependent on imported milk powder. There is clearly room for the development of linkages into the local livestock sector. However, the nomadic herding practices followed in Mauritania effectively prevent the marketing of milk products. Local products present a further problem in terms of quality control. Nevertheless, fresh milk is available in the urban centres. Around Nouakchott alone there are 4,000-6,000 camels and cattle meeting this demand. At present this milk is distributed unpasteurized but the herd owners have integrated into the modern sector to some extent. They are the main purchasers of manufactured animal feeds.

Production of beverages is well established in Mauritania. In 1975 Société de Boissons Mauritanienne was set up in Nouakchott with BGI (France) holding a majority shareholding. SOBOMA has concessions to produce Coca-Cola and Fanta but also produces a range of fruit drinks under its own brand name and ice bricks. Capacity is estimated at 33,000 hectolitres of drinks per year and 1,000 tons of ice. The company is the market leader in the field of beverages and registered an increase in sales in 1986, 1987 and 1988. It competes on favourable terms with imported products and is seeking to widen the range of its products. Another company in this field is BONOMA, based in Nouadhibou and therefore aimed at a distinct regional market, which holds a licence to produce Pepsi-Cola. Neither company, has potential to export into neighbouring countries since they too have well established beverage manufacturing enterprises. Furthermore, neither company is linked with the domestic agricultural sector. All the concentrates, sugar and bottles used by these companies are imported.

In contrast the mineral water bottling plant, the Société Mauritanienne des Eaux de Benichab (SOMEB), located near Akjoujt, which was established with private capital in 1982, uses local raw materials. Production has expanded steadily from 17,000 cartons in 1982 to 184,600 cartons - although this falls far short of installed capacity of 2,200 cartons per day - and is a market leader in Mauritania. The company has export potential and plans to diversify into dairy products and fruit juices.

Since 1986 there have been a number of new developments in the food and beverages sector. One company, CMCIA, has established a factory manufacturing tomato concentrate based on locally produced tomatoes, another, the Co-operative Tenadi, in Tenadi, is producing chicken products, and a third SOMIA producing edible oils. These factories indicate a shift towards the processing of domestic raw materials which will, in the long-term, strengthen the industrial base of this sector. The government hopes to secure further development along these lines, with processing industries complementing the growth and diversification of the agricultural sector.

One field in which there is certainly development potential is in the processing and marketing of livestock products for domestic consumption and export. Until 1975, a foreign company, COVIMA, operated an abattoir at Kaédi with some success. Frozen meat products were exported to the Canary Islands and West African countries and the company maintained quality by operating a quarantine ranch. In 1975, the abattoir was nationalized and production began to tail off. With the transfer of management to Société Mauritanienne de la Commercialization du Bétail (SOMECOB) in 1981, a public company holding a unenforceable monopoly on livestock exports, the abattoir ceased to export processed meat and became effectively a municipal slaughterhouse working well below capacity. Meat is now exported on the hoof, mostly by private sector businessmen for whom animal exports provide a valuable source of hard currency and the nomads themselves during their seasonal transhumance. Domestic demand for meat is met by municipal abattoirs and artisanal butchers - 368 butchers were enumerated in a 1986 census of informal sector activities in Nouakchott. There is little quality control and the animals are usually slaughtered in unhygienic conditions.

The construction of new and rehabilitation of existing abattoirs, such as the abattoir at Nouakchott, could raise the quality of local products and provide an opportunity for exports of processed meat. This would help integrate the livestock sector, which has, traditionally, operated as an enclave, into the modern economy, thereby raising the standard of living among the nomadic community and the value added of the livestock sector. Such developments are, however, dependent on a regular source of livestock which, in turn, implies a stabilization of production within this sector. This has proved difficult to achieve in the drought conditions of recent years and in the 1980s Mauritania had to meet part of the domestic demand through meat imports. Furthermore, the regular supply of livestock to a meat processing industry demands an established animal marketing structure. The national marketing board, Société Mauritanienne de la Commercialisation du Bétail (SOMECOB), has been unable to mobilize the commercial herds because, in comparison with the private sector, its prices are uncompetitive. Future developments along these lines will, therefore, depend on private sector initiative.

Within the meat processing sector, poultry products also have potential for further development. The first poultry farms were initiated in the early 1980s and by 1986 there were five in operation near Nouakchott and Rosso producing 250,000 chickens and 700,000 eggs per year. The processing and packaging of chickens is still at a rudimentary level but could be extended to a range of poultry products.

The development of a modern livestock sector has created a market for manufactured animal feeds and a linkage from the industrial sector into agriculture. In 1982 an animal feed factory was established by Générale d'Industrie, Commerce et de Représentation (GICR). The enterprise responded to a growing market for feed supplements and substitutes in the livestock and poultry farming industries, formerly met by imports which totalled 15,000 tonnes in 1983. The company was renamed the Société Mauritanienne pour le Développement Rural et l'Élevage (SOMADERE) in 1986, and has a production capacity of 120 tonnes per day. Raw materials for the livestock feeds come from Senegal but the company also makes use of the fish meal produced locally. The company has also benefited from technical assistance from Pfizer (USA), Protector (USA) and UCAAD (France). More recently a second animal feed factory, SMPF, has been established at Nouakchott and other entrepreneurs have shown interest in similar ventures. Although the domestic market is expanding and, in the case of SOMADERE at least, there is potential for export sales in neighbouring countries and perhaps even the United States, there is a danger that the sector will suffer from overcapacity. Marketing networks within the livestock sector are poor and a major constraint on the growth of sales. The government is, however, eager to promote the use of feed supplements as part of its livestock development policy.

3.2 Fish processing

Mauritania's fish processing industry has grown rapidly in recent years due to government intervention rather than any specific comparative advantage. With the introduction of the new fisheries policy in 1979 and, in 1982, the introduction of mandatory landing requirements for cephalopods and demersal species, each of the fishing fleets operating in Mauritanian waters was obliged to invest in onshore processing and storage facilities. The major companies established in this sector are:

ALMAP, Algero-Mauritanienne de Pêche, a joint venture with the Algerian government. The Mauritanian State holds 51 per cent of the UM180 million capital.

SALIMAUREN, Société Arabe Libyenne Mauritanienne de Ressources Maritimes, a joint venture between the Lybian government and the State, each partner holding 50 per cent of the of the UM2,300 million capital. **SALIMAUREM** has a daily freezing capacity of 50 tonnes and cold storage capacity of 400 tonnes.

SAMIP, Société Arabe Mauritano-Irakienne de Pêche, a joint venture between the State, holding 55 per cent of the UM1,000 million capital, and the Iraqi government.

MAUSOV, Société Mauritanienne Soviétique de Pêche, a joint venture with the Soviet government with 51 per cent of the UM11.4 million capital owned by the State. **MAUSOV** has cold storage capacity of 3,000 tonnes.

SIMAR, Société Mauritano-Roumaine de Pêche, a joint venture with the Romanian government and national private investors with 15 per cent of the UM 180 million capital owned by the State and 36 per cent by private Mauritanian businessmen. **SIMAR** has a daily freezing capacity of 60 tonnes and cold storage capacity of 1,800 tonnes.

MSP, Mauritano-Scandinave de Pêche, a joint venture with various Scandinavian governments with 42 per cent of the UM20 million capital owned by the State. This company was programmed to be dissolved in 1986. **MSP** had a daily freezing capacity of 45 tonnes and cold storage capacity of 1,500 tonnes.

SOFRIMA, Société des Frigorifiques de Mauritanie, a privately controlled company with 35.8 per cent of the capital owned by the State. **SOFRIMA** has a daily freezing capacity of 30 tonnes and a cold storage capacity of 2,000 tonnes.

SMEF, Société Mauritanienne Frigorifique, a privately controlled company with 11 per cent of the UM45 million capital owned by the State. **SMEF** has a cold storage capacity of 3,000 tonnes.

SIPECO, a privately-owned fishing, freezing, and storage company. **SIPECO** has a daily freezing capacity of 20 tonnes and cold storage capacity of 2,000 tonnes.

COMACOP, Compagnie Mauritano-Coréen de Pêche, a private joint venture between Mauritanian nationals and private sector investors from the Republic of Korea. **COMACOP** has a daily freezing capacity of 80 tonnes and cold storage capacity of 8,000 tonnes.

SPPAM, Société pour la Promotion de la Pêche Artisanale en Mauritanie, a limited liability shareholding company owned 35 per cent by the State, 55 per cent by private business interests and 10 per cent by fishermen's cooperatives. **SPPAM** has cold storage in Nouadhibou, Nouakchott, and smaller centres throughout the country.

Paradoxically, while the capacity of shore installations remains well below the size of the physical catch, the low capacity utilization rates experienced before the imposition of the mandatory landing requirement persist. This is largely because the shipping fleets may transfer and process the lower value pelagic species - which represented 69 per cent of total fish exports by weight - at sea.

Furthermore, most of the fish catch undergoes little processing other than gutting and freezing. Exports of fish meal and fish oil have increased since 1980 - from 9,600 tons to 31,602 tonnes in 1986 - but have fallen as a proportion of total fish exports, accounting for only 9.2 per cent of fish exports by weight in 1986 and 5.5 per cent by volume in 1986. There are few facilities for smoking, drying and salting - fish processed by these methods accounted for only 0.1 per cent of exports by weight and 0.3 per cent by value in 1986 - let alone more complex processing procedures such as canning and filleting and none at all for the production of fish food products. If the fishing industry is to increase the value added accruing to the national economy developments along these lines are essential. This will demand a marketing strategy for both the national market, where fish is looked down upon as a food, and for exports.

The growth and development of the fish processing industry must also overcome the constraints of location - the main fishing port, Nouadhibou, is distant from the major population centres in the south of the country, the high cost and irregularity of power supplies and the problems of hygiene and quality control experienced by other enterprises in the food industry. Doubtless an improvement in both the quality and the preparation of fish products will make fish more attractive to the local market. It will also create the opportunities for higher value added that the government has sought to achieve in the past by increasing the level of participation in the industry by Mauritians.

3.3 Textiles, clothing and leather

Mauritania has a long tradition of artisanal textile manufacture and leather working but has been unable to develop successful industrial enterprises in these fields. A survey of informal sector activities in Nouakchott undertaken in 1986, revealed 1,156 tailoring enterprises, 5 weaving workshops, 102 enterprises producing leather goods, 52 enterprises dyeing cloth and 21 rug weaving workshops. Together these enterprises accounted for 55.6 per cent of all informal sector manufacturing activities. These activities are also important in rural areas and the towns of the interior. Such artisanal operations are orientated towards the domestic market, more specifically the needs and tastes of the less affluent, and, except in the case of carpets, have little export potential. Most artisans use local raw materials, although tailoring depends heavily on imported cloth, and the quality of the product in such activities as tanning, shoe making and tailoring is often poor.

Within the carpet weaving industry attempts have been made to integrate the traditional artisanal mode of production into the modern economy. On the advice of the IDA, the government established the Office du Tapis Mauritanien (OTM) in 1980 in order to provide marketing, training and technical support to female weavers working in groups of six in their own homes. OTM provided these independent co-operatives with short-term commodity credit in the form

of looms which they pay back in eight years at an interest rate of 8.5 per cent, and initial raw materials which were to be funded by the OTM paying weavers only the labour cost of the carpets delivered. However, burdened by debts from its former institutional structure, the OTM was faced by a shortage of working capital. Consequently, supplies of raw materials became short and production fell to 1,000 sq m in 1983 from a peak of 1,500 sq m in 1982. In order to redress the company's financial situation OTM's administrative staff was reduced, the debt burden converted into maturities compatible with the company's long-term refinancing abilities and further credits were provided by the IDA. Subsequently, management of OTM was transferred to the Fond National de Développement (FND) and the company was then restructured and privatized as Tapis SA. Under a new management structure the company's performance appears to have improved. Its performance cannot, however, be assessed on the basis of financial criteria alone. Tapis SA provides training facilities and employment, at very low capital cost, for women in the less advantaged sections of the Mauritanian community. Moreover, it provides these services with the minimum amount of social disruption by providing employment for women within the milieu of their own home in a traditionally female field of activity.

Mauritania lacks an industrial tannery, because, despite the huge potential of the livestock herd, there are problems with the collection of skins and their quality. In the early-1980s the Société Nationale des Industries des Peaux et des Cuirs proposed the construction of a wet-blue tannery with a capacity of 65,000 cattle skins, 80,000 goat skins and 160,000 skins of cross-breeds, with the creation of 64 jobs and an investment of UM260 million, but nothing came of the project. The tanning and curing of skins remains an artisanal operation. Consequently, larger-scale leather-working enterprises have problems securing regular supplies of cured skins. The products of artisanal curing process are, furthermore, of low and unreliable quality and so inhibit the development of a leather industry producing high value, export orientated products. Poor quality also prevents the development of export sales to countries with established leather working industries - Spain and Italy.

The shoe and sandal manufacturing enterprises also operate at an artisanal level. The Société Mauritanienne d'Industrie et de Commerce (SOMIC), founded in 1985 and employing 41 persons, remains a low-technology and highly labour-intensive operation. This is equally true of Etablissement Drame et Frères. Both companies face competition from artisanal scale enterprises producing similar products for the same domestic market. Since 1986 a company manufacturing plastic shoes, Etablissement Moahmed Mahmoud, has been established. This enterprise is also orientated towards the lower income domestic market. Until the quality and supply of cured leather is improved the industry will continue to be restricted to the domestic market.

Industrial cloth production is limited to one company, S.A. Mauritanienne des Industries et Equipements, which produces blankets and polypropylene sacks. Established in 1976 the company has production capacity of 200,000 blankets and 3 million polpropylene sacks per year, though the company currently works below capacity. Another company, SICOTEX, recently established, finishes and prints imported cloth. This is an extension of traditional crafts.

The garment manufacturing industry, other than the activities of artisanal tailors, is limited to two companies, one of them formerly the Société Nationale de Confection which was brought under private ownership and the other, EMADÉ, a private concern. No details of production, markets and sources of raw materials are available, though both operations are thought to be small-scale and use low-technology and labour-intensive production methods. At present the market for traditional clothing is supplied by the tailoring workshops. Industrially manufactured clothes must compete with imported, fashionable brand-names. They are also disadvantaged by the lack of a local textile manufacturing industry. Further developments in this sector are, therefore, likely to be limited in future.

3.4 Wood and wood products

Mauritania has limited supplies of wood. The demands of the construction industry - which are gradually falling as contractors substitute reinforced concrete for wooden joinery - and the furniture industry are met by imports. Wood is imported in planks, some of which is sawn into the dimensions required by joiners and carpenters in two small saw mills, the remainder is processed by the end user. Furniture manufacture is still an artisanal operation and the country remains dependent on imported products. One private company produces pre-fabricated buildings. Otherwise there is little wood working activity in Mauritania and, given the status of domestic reserves, none is likely to develop in the near future.

3.5 Paper and paper products

As in the case of the wood and wood products industry, Mauritania lacks the basic raw materials necessary for a paper industry. The Société Industrielle de Plastique et d'Emballage (SIPE), established in 1976, produces cardboard boxes out of imported cardboard kits and produces some plastic packaging materials. As the only packaging company in Mauritania it holds a dominant market position but suffers competition from imported products. Two other companies, Union des Papeteries de Mauritanie (UPM), and COMAF, produce a range of school and office stationary. Both companies face competition from imported products.

There are also four small-scale printers, producing customized stationary and office materials, and a large publically-owned industrial printing plant, the Société Mauritanienne de Presse et d'Impression (SMPI), which produces government documents and the national newspaper, Chaab. The private sector printing enterprises have secured their market by providing services to the local business community which cannot easily be met by printers abroad. Further developments in this sector are, therefore, dependent on the growth of business activity. The growing competition between the small presses will, ultimately, lead to an improvement in the quality of workmanship but the industry is unlikely to develop an export market.

3.6 Non-metallic mineral products

The strength of the construction industry - which has consistently represented a larger proportion of GDP than the manufacturing sector - has encouraged the development of Mauritania's non-metallic mineral resources. In recent years the industry has evolved beyond the traditional artisanal scale of operations with the emergence of industrial plants producing traditional products. The two modes of production remain in competition, with the artisanal operations having the advantage of flexibility.

Plaster has long been produced at an artisanal scale, in small ovens near construction sites. The Association pour le Développement de l'Architecture et de l'Urbanisme en Afrique (ADAUA), for instance, has constructed a number of houses of plaster, with domed roofs in a traditional style. Plaster has excellent thermal insulation characteristics which make it a valuable construction material. More recently, a plaster factory began production in November 1984, using gypsum mined at Sebkhah N'Dahamcha - the only gypsum deposit currently exploited in West Africa. The factory, operated by the Société Arabe des Industries Métallurgiques, attained an output of 14,809 tonnes in 1987, 8,615 tonnes of which were exported. Production capacity is 30,000 tonnes per year. To a large extent the growth in demand depends on the substitution of plaster for cement. However, a number of specialist uses for plaster have emerged. Part of the output is used on site in the production of plasterboard and tiles. These products also have export potential. Further vertical integration, with the manufacture of a wider range of plaster products, is planned. Another company, RIM-STAFF, already uses the plaster produced by SAMIA to manufacture decorative plaster mouldings.

A project for a cement factory was mooted in the late 1970s but was abandoned because of the narrow domestic market. Instead, private entrepreneurs established a cement packaging factory, Ciment de Mauritanie, in 1978 and this began operations in 1981. The cement is imported in bulk, mostly from Spain, and distributed in sacks. In the early 1980s the company planned to instal a clinker crushing machine but this development appears to have been abandoned. The construction of silos has allowed the company to maintain regular supplies of imported cement to the domestic market. Furthermore, prices have fallen significantly, from UM8,000 per tonne in 1981 to UM6,400 per tonne in 1987. Nevertheless, the company's contribution to value added and the development of the country's industrial technology appear minimal while the lack of competition is a handicap to improved productivity. Although the company holds a strong, almost monopolistic position, in the local market, it remains heavily dependent on public works contracts. A number of artisanal enterprises - 29 in Nouakchott alone, according to a survey undertaken in 1986 - manufacture cement blocks and tiles from imported cement.

Another basic industry feeding into the construction sector is the manufacture of bricks. Again production has traditionally been carried out at an artisanal scale, near the construction site. During the construction of the hospital at Kaedi, for instance, six brick making ovens, fired with rice straw, were set up producing 12,000 bricks per day. The production cost of the bricks was less than a fifth that of comparable concrete blocks. A permanent brick factory has been set up by CERAMAU at Rosso. It too uses agricultural waste as the source of fuel. The company received a credit from an Italian company for the import of machinery. Details of the company's performance are not available.

Lime is also produced locally on an artisanal scale. It is used for whitewashing walls, though it may also be used as a substitute for cement. In recent years this industry too has seen the development of a permanent lime factory, SMFC.

Granite, marble and composite stone and cement tiles are another basic products used by the construction industry. These have been produced on an industrial scale by SIRCA, a private company since 1970, using materials

mined near Akjoujt. The price is competitive with imported products but the quality is lower. Production techniques are simple with little mechanization and several stages in the production process are ignored: for instance, the tiles are not polished. If the company is to remain competitive, greater attention will have to be paid to the finishing processes as the building industry develops a market for quality as well as good value products.

One company, Industrie, Transport et Commerce (ITC), founded in 1986, produces ceramic sanitary ware. Approximately half the materials used are of local origin and the company has a production capacity of 20,000 units per year. The main constraint on its development is the narrow size of the local market and, in 1987, capacity utilization was only 30 per cent.

Further developments in this sector are likely to follow the line of increased specialization and the substitution of imported products. At the same time, the scale of production of the basic materials is likely to increase and the number of industrial operations will proliferate at the expense of, or through the development of, artisanal enterprises. The expansion of this sector is, however, ultimately dependent on the health of the construction industry. Large-scale public sector construction programmes will favour the emergence of industrial-scale suppliers, while the piecemeal construction of private housing will help maintain a residual artisanal sector producing basic construction materials.

3.7 Chemicals and chemical products

The chemical industry has developed through the transformation and manufacture of imported basic chemical products. Enterprises have sought to substitute locally manufactured products for imported finished goods and have met with considerable success, largely due to the high degree of protection afforded by tariff and non-tariff trade barriers. Dependence on imported raw materials has, however, reduced their comparative advantage in the international market. Furthermore, it has inhibited the growth of linkages within the sub-sector and with the primary sector. Now that the petroleum refinery, originally constructed in 1978, has been brought into operation, there is considerable potential for the development of a basic chemicals industry and the diversification of the sector's production base.

In 1972, a match factory was established by the Société Mauritanienne d'Allumettes (SOMARAL) with a capacity to produce 2,500 cartons of 1,440 boxes per year using imported materials. Production was, however, only intermittent, due to the poor maintenance of the equipment and the low level of training of the maintenance staff. Now production has ceased and the company imports and packages finished matches and limits its activities to packaging and distribution. Although the company's value added has fallen as a result, it has become more profitable.

The Comptoir Industriel de Produits Chimiques et d'Entretien (CIPROCHEMIE), a private company established in 1975, was the foundation of Mauritania's chemicals industry. Although the company undertakes no basic processing of chemicals it produces a wide range of chemical products from imported raw materials: these include pesticides, insecticides, detergents, disinfectants, scouring powder and aerosols. Production capacity for pesticides and insecticides is 10,000 tonnes per year and detergents 600 tonnes per year. Dependence on imported inputs is a major constraint on the company's profitability and reduces its competitive edge against imported

finished products. The company also suffers from a shortage of skilled manpower and the narrow domestic market. However, diversification has allowed the company to increase the level of sales and further diversification of production is planned.

A factory producing paints and varnishes, SMCI, was also founded 1976. As in the case of CIPROCHEMIE, SMCI depends on imported raw materials for its production and so is in weak market position faced with imported finished products. It too, has been able to overcome the constraints of a narrow market by the diversification of its products.

In recent years two companies have been established producing soap, hygiene and perfume products. The Société Mauritanienne d'Industrie Générale de Mauritanie (SOMIGEM), founded in 1981, has a production capacity of 4,500 tonnes of household soap per year. It holds a dominant position in the local market, largely because its products are well adapted to local needs. The quality of products is, however, lower than that of competing imported brands.

La Mauritanienne des Produits Manufacturés (MAPROMA) was established in 1985. Its products are more diversified than those of SOMIGEM, including soap, shampoo, toothpaste, perfume and beauty products. Most of these goods are manufactured from imported base materials and production is limited to batch mixing and packaging. There is, however, a semi-automated bar soap production line. Both companies face competition from imported products, in particular from contraband goods that enter the market without paying the high import tariff.

The Société pour le Développement Industriel et Commercial (SDIC), established at Nouakchott in 1981, produces a range of plastic bags, pipes and household goods, with a total capacity of 1,600 tonnes of plastic products per year. Raw materials are imported. In 1987, the company opened a new plant at Nouadhibou. The company's success has, as is the case with other companies in this sector, been a result of its product diversification and ability to respond flexibly to local market demand.

The Représentation de Commerce Général et Industrie de Mauritanie (RECOGIM), produces a range of foam products, mostly mattresses. In 1987 the company inaugurated a new range of sprung mattresses, diversifying its production to accommodate the more affluent section of the domestic market. The company has a strong market presence and its production capacity is 250,000 foam mattresses and 40,000 interior sprung mattresses. The main problem the company faces at present are the government's fixed prices, imposed by decree in January 1986.

Other enterprises in the chemicals sector include a candle manufacturing plant SOMAGOCIR, which has had problems competing on the domestic market against imported - possibly "dumped" - candles, and a company manufacturing automobile batteries, SABA, again from imported products.

Until the re-opening of the petroleum refinery in April 1987 only one company was involved in the production of basic chemical products, SOMARCI a company producing industrial gases, oxygen and acetylene, for use in the construction industry. The petroleum refinery has, however, provided an opportunity for the growth of this branch. Following a two-year rehabilitation programme financed by the Algerian government, the refinery now has an estimated annual output of 25,700 tons of butane, 275,000 tons of petrol, 83,000 tons of paraffin, 200,000 tons of gas oil and 357,000 tons of

fuel oil. One-third of the capacity output is sufficient to meet local demand for these products and the management of the refinery, the Algerian public company Naftal, has already arranged exports for the surplus production to neighbouring West African states.

An important spin-off has been the bottling of butane gas. The Société Mauritanienne de Gaz (SOMAGAZ), owned by the Société Mauritanienne de Commercialization des Produits Pétroliers (SMCPP), which holds a near monopoly on the sale of petroleum products in Mauritania, Naftal and private Mauritanian interests, commenced production in 1987. Production capacity is 4,800 bottles per day (5,000-7,000 cu m per year) contingent on the supply of gas from the refinery. The bottles used for storage and distribution are imported. The future of this enterprise seems secure, given the growth of demand for bottled gas as a substitute for wood fuel.

There is certainly potential for further use of petroleum products from the refinery in basic chemical industries and the use of these materials in existing and future enterprises using chemical products. The viability of such vertical integration will depend, however, on the economies of scale provided by the refineries output. Further research on the potential linkages between the refinery and the chemical industry merits a pre-feasibility study.

3.8 Basic metal industries

The mini-steel furnace established by SNIM at Nouadhibou in 1978 is the only basic metal industry in Mauritania. Its production capacity is 12,000 tonnes of steel per year, produced from locally available scrap steel, mostly old railway rails, and 36,000 tonnes of rolled steel per year. However, the plant has never attained full production, largely due to technical problems. Production began in 1981 but three years later the plant was closed for rehabilitation and ownership transferred to a private company, the Société du Fer et l'Acier (SAFA). In mid-1985, the plant reopened again but was closed for further rehabilitation in 1986. Production resumed in 1987 and the plant produced 6,765 tonnes of steel with a total value of UM338.94 million. Exports totalled 277 tonnes. Further growth is anticipated, with excess capacity being brought into use as the company expands into regional export markets. The main constraints on the company's future development are competition from other steel producing countries and the high cost of distribution, both in the national and regional markets. Raw materials are unlikely to present a problem as Mauritania possesses plentiful supplies of scrap steel. However, there is little prospect of the furnace operating from locally mined iron ore in the near future.

Efforts are being made, however, to increase the value added of locally mined iron ore. A feasibility study for an iron ore pelletization plant, which would upgrade the 40-45 per cent iron content ore from the Guelbs deposit to 65-68 per cent iron content. Sited at Nouadhibou the output would be directed at the markets in Egypt and the Maghreb countries. Libya's Misurta steelworks and Algeria's Sider have shown interest in a joint venture with SNIM and other Arab partners are being canvassed.

3.9 Metal products

Mauritania has a strong artisanal metal working sector. Traditional blacksmiths still produce many of the tools used in rural areas. In the town of Nema, for instance, with 10,000 inhabitants, a recent survey indicated^{1/} that the local artisans co-operative, included some 68 blacksmiths manufacturing a range of household and agricultural implements. The total number of blacksmiths throughout the country was estimated to be approximately 6,000. Within the urban areas the traditional blacksmith is incorporated into the fringe of the modern sector. Most metal workers carry out repairs on modern household and transport machinery as well as, or more often instead of, manufacturing metal goods. A survey of Nouakchott's informal sector in 1986 revealed that 199 enterprises were engaged in metal and wood working - though the number of wood workers was thought to be relatively small - 8 per cent of all informal sector manufacturing enterprises.

Within the modern industrial sector several of the enterprises identified as metal working - notably, the Atelier de Rénovation Mécanique (ARM) and RECOME - are simply engaged in the repair and maintenance of mechanical goods. They should, therefore, be classified as service industries. There are, however, ten enterprises manufacturing metal products. One of these, the Tôlerie Abdallahi Frères, produces simple sheet metal and agricultural implements in a labour-intensive production process. SAFA, the steel rolling mill, on the other hand, is highly automated and technologically advanced in its production of steel reinforcing rods for concrete. These are used in the major public works projects and, increasingly, in private construction as a substitute for joinery. More recently a private company, PAM, has been established producing rolled steel profiles by a cold rolling process. Another, UPRA, manufactures a wide range of aluminium products.

Two companies recently established within the metal working sector are the Société Mauritanienne des Articles de Ménage (SOMAM) and SOMIPEX. SOMAM, began operations in 1985 and produces a range of enamel plates, dishes and containers. The company estimated, in 1987, that its sales covered 30 per cent of the market for these products, the remainder being met by imports from the Republic of China and Eastern Europe some of which enters Mauritania as contraband. The plant is equipped with modern machinery, nevertheless there are problems with quality control and this is detrimental to its export potential. SOMIPEX produces a range of nails, wire fencing and steel mesh products. The company is equipped with modern machinery and the products are well adapted to the local market but, like SOMAM, there is considerable competition from imported products. Both SOMIPEX and SOMAM rely on imported inputs, rather than the steel produced by SAFA.

In recent years, three enterprises producing mechanical products have emerged. Two of these companies, the Entreprise Mauritanienne pour la Mise en Valeur des Ressources Naturelles Deyloul (Entreprise Deyloul) and the Société de Technologies Appropriés (STA), are of particular interest because they respond to Mauritania's need to develop alternative energy sources. STA, founded in 1984, manufactures solar ovens and has plans to develop photovoltaic systems. Entreprise Deyloul opened a small workshop building windmills and water pumps in 1987. These developments underline the initiative and innovative approach of Mauritanian businessmen. They have, furthermore, received encouragement from the government. The third enterprise, SIPEC, assembles and repairs vehicle exhaust systems.

1/ UNDP, Rapport final du projet de développement de l'artisanat utilitaire au Gouvernement de la République Islamique de Mauritanie, October 1987, p. 24.

A project currently under review, the Société Mauritano-Saoudienne pour la Réparation Navale (MASHREF), was established in 1987 with government initiative as a joint venture between the State, the Saudi Arabian El Baraka corporation and the Société Mauritanienne pour l'Assistance Technique (SATEMA). The company has been formed in order to maintain, repair and construct vessels for use by the Mauritanian fishing fleet. Vessels of up to 50 metres in length will be constructed from aluminium. The boats may simply be assembled from imported kits and the engines and equipment installed. A pre-feasibility study has been financed by Caisse Centrale de Coopération Economique (CCCE) and a total investment of \$40 million is anticipated.

4. POLICIES, PLANS AND INSTITUTIONS FOR INDUSTRIAL DEVELOPMENT

4.1 Industrial policy objectives and environment

The central objective of government policy in the industrial sector is to ensure endogenous development and encourage self-sustained growth. Priority is given to those industries producing goods and services essential to the well being of the population, and to those transforming indigenous raw materials - mineral, agricultural and fisheries products - thereby improving inter-sectoral linkages within a disjointed economy. The industrial sector, and the small business sector in particular, is seen as a means of promoting employment at a time of rapid urbanization and while the public sector is streamlining its work force. Industry is also expected to contribute to an improved balance of payments situation through the active promotion of export-oriented import-substituting industries. The government further seeks to meet regional development needs through the dispersal of industry.

During the 1970s, the Mauritanian Government's development strategy focused on the provision of an infrastructural base. Under the Third Development Plan (1976-1980), UM14,823 million, representing 45.4 per cent of public sector investment, was invested in the transport sector. Much of this was directed at one major project: the Nouakchott-Nema road linking the south and east of the country to the capital and opening up Mauritania's most productive agricultural region to development. During this period the directly productive sectors took second place (Table 4.1). Of the productive sectors, however, industry received the largest share of public sector investment: UM4,969 million, 15.2 per cent of the total, compared with only 8.0 per cent for agriculture and 8.5 per cent for mining.

Table 4.1: Distribution of actual and programmed public investment, 1976-1988 (selected periods)
(percentage)

	Actual 1976-1980	Actual 1980-1985	Programmed 1985-1988	Estimated 1985-1986
Rural infrastructure	1.8	21.1	20.0	21.5
Other rural	8.0	4.7	15.3	12.2
Fisheries	2.2	0.6	5.0	1.7
Mining	8.5	37.4	10.8	13.0
Industry	15.2	2.5	3.0	4.3
Public utilities	4.7	4.8	16.2	15.2
Transport	45.4	22.5	17.2	23.5
Social	14.2	6.4	12.4	8.6

Source: World Bank, Report No. P-4550-MAU, 1987, p. 7; and World Bank, Islamic Republic of Mauritania: Country Economic Memorandum, 1985, p. 36.

Mauritania's rich mineral resources were seen as the foundation of industrial development, with downstream linkages in processing industries following a 'classic' path of industrialization. At the same time, the government saw opportunities for diversifying the industrial structure and supporting the balance of payments through import substitution. In both fields the emphasis was on large-scale industrial enterprises with the State taking the leading role in investment and management. Seven major industrial projects were proposed in the Third Development Plan with an average investment of \$74 million (Annex Table A-4). However, only three of these were implemented - the sugar and oil refineries in 1977 and the electric iron furnace in 1978 - and they proved ill conceived. Only the iron furnace began operations. The oil refinery was too small (1 million tons/year) to be profitable and had no market for 70 per cent of its product and lacked trained personnel. The sugar refinery depended on imported sugar since no sugar cane is grown in Mauritania and the cost of refining sugar exceeded the cost of sugar imports. As a result, the operational start-up of both projects was postponed.

This year marked a fundamental shift in economic development priorities and strategies. The emphasis turned from investment in infrastructure to the directly productive sectors with the government giving close attention to the selection of projects to ensure the optimal use of investment resources. The mining sector received the lion's share - 37.4 per cent - of actual investment during the first four years of the Fourth Development Plan (1980-1985) as the government implemented the Guelbs iron ore development project. With the Guelbs project nearing completion the mining sector's share of public sector investment has since fallen. The agricultural sector is now the government's priority, with large-scale irrigation and rural infrastructure projects absorbing over 20 per cent of actual and planned public investment through the 1980s. The fisheries sector too has been targeted for an increased share of public investment.

Public investment in the industrial sector, on the other hand, has been radically cut: falling to 2.5 per cent of actual public sector investment in 1980-1985 and 3.0 per cent of programmed investment in 1985-1988. Industry's share of programmed investment under the Public Investment Programme of 1989-1991 rose again to 9.3 per cent. However, these funds are to be directed at industrial infrastructure, research and support rather than the implementation of industrial enterprises, as in the 1970s. Since the policy re-orientation in 1979 the government has looked to the private sector as the source of directly productive investment in industry and the industrial development strategy has focused on the small- and medium-industry (SMI) sector as a more cost-effective means of generating employment than the ambitious projects of the 1970s. In line with this strategy re-orientation, the government has introduced a number of policy initiatives aimed at increasing the level of private sector investment and participation in the industrial sector: improvements in the macroeconomic and infrastructural environment, the promulgation of an investment code offering generous incentives to the private sector and improving access to credits for investment projects. The government has also sought to withdraw from active participation in the economy as a whole, and the industrial sector in particular whilst rehabilitating existing productive capacity through a programme of joint ventures, concessions and divestiture.

4.2 The 1979 Investment Code

The Investment Code currently operating in Mauritania was promulgated on March 16, 1979 (Ordinance No. 79-046). This Code provides for a range of tax and customs duty exonerations and exemptions on approved investments, with the duration of these advantages defined by the size of the proposed investment. Enterprises designated as having priority, and approved by the Code fall within the following sectors:

- Agro-industrial companies engaging in both agriculture and the transformation of agricultural products in Mauritania, as well as those companies transforming Mauritanian crops and livestock.
- Companies engaged in the transformation and treatment of fish products.
- Fishing fleets, maritime transporters and ship building and repair facilities.
- Companies transforming, manufacturing, or assembling articles for general domestic consumption from imported raw materials or semi-finished products.
- Companies preparing, transforming and packaging articles and objects from local raw materials.
- Companies engaged in the extraction, enrichment or transformation of minerals (whether solid, liquid or gaseous), as well as companies engaged in petroleum and mineral exploration.
- Building and construction companies providing low-cost housing.
- Companies producing energy, and those producing and treating drinking water.
- Companies investing in tourism.

The Code applies to new investments (as of March 1979) as well as to existing enterprises whose activities are covered by the above priorities and which presently plans to extend or expand their operations which meet the criteria for new investments.

Schedule "A" of the Code applies to approved enterprises in the investment range up to UM20 million. Key provisions include:

Three-year exoneration of customs duties and import taxes on equipment.

Seven-year exoneration in Nouakchott and Nouadhibou (12 years in other locations) from duties and taxes on imported raw materials, consumables and replacement parts.

Three-year exemption in Nouakchott and Nouadhibou (5 years in other locations) on all reinvested profits and export duties.

Free land outside Nouakchott and Nouadhibou, and import licenses for all materials.

Schedule "B" applies to qualifying investments over UM200 million. In addition to all Schedule "A" exemptions, a number of other advantages may be secured for periods up to 20 years:

- right of transfer of all convertible currency investments;
- negotiated long-term taxation;
- repatriation of dividends and liquidation receipts;
- indemnity for nationalization; and
- international arbitration of disputes.

Despite the generous concessions offered, the Code has only been a qualified success. According to the government's Economic and Financial Recovery Plan, presented to the Consultative Group for Mauritania in 1985, only 18 manufacturing enterprises had benefited from the Code by 1984 and only two of these were based outside the capital. They had created fewer than 800 jobs despite an investment of UM1.4 billion.

To some extent, the Code's limited success can be attributed to its structure and manner of implementation. It was criticized in its early years on the grounds that the UM10 million threshold then in force was a barrier to the small investor who provided the most dynamic component of the private sector, and also those most in need of protection from taxation afforded by the Code. This threshold was removed in 1985. Nevertheless, the Code and its implementation needs to be refined still further. Many businessmen have experienced long delays in obtaining approval for investments. The periods of exoneration and exemption are barely long enough for new enterprises to gain benefit, when taking into account the long start-up periods required in the Mauritanian environment. Furthermore, some businessmen argue, the Code is not competitive with regimes offered by other West African states, discouraging international investors from establishing in Mauritania as a base for regional operations.

The 1979 Code is also deficient from a fiscal point of view. This is partly due to the lack of selectivity in the Code. In particular, all manufacturing enterprises qualifying under the 1979 Code benefit from customs tariff exoneration regardless of the degree of transformation of semi-finished products. Furthermore, the blanket nature of other fiscal advantages allows companies benefiting under the 1979 Code to claim concessions on their total profits and turnover, regardless of the source of such profits and sales.

The government's 1985-1988 Economic and Financial Recovery Programme has applied a package of policies agreed upon with the donor community, many of which date back to the financial stabilization programmes undertaken in 1978 and 1980. These policies may be summarized as follows:

- a) The provision of incentives for private sector investment.
- b) The reduction of State intervention in the industrial sector through a programme of divestiture and the limitation of the state's role in the promotion and stimulation of private industrial activity.

- c) The provision of an institutional framework for the promotion of the Small- and Medium-scale Enterprise (SME) sector and the development of necessary managerial and technical skills.
- d) The provision of credit facilities for the SME sector.
- e) The improvement of management practices in the para-public sector and the rehabilitation of existing productive capacity.
- f) The valorization of fishery resources through the development of on-shore processing facilities, expansion of the national industrial and artisanal fishing fleets and restriction on the number of licences granted.
- g) Rehabilitation of the mining sector through a reduction in production costs, new investments and diversification.

In January 1988 the government announced its intention to promulgate a revised Investment Code as part of its donor-approved Economic and Financial Recovery Plan. The reforms, which were still awaiting final approval at the time of writing, will introduce a greater selectivity to the enterprises qualifying under the Code. They will also favour more labour-intensive enterprises, exporters, and investors outside Nouakchott, Nouadhibou and foreign companies. Furthermore, measures will be taken to expedite the processing of applications under the code.

The new Investment Code is likely to be introduced as part of a general reform of the institutional framework for investors covering customs tariffs, the system of import licences and procedures, the basic tax code, the system of price controls and the credit regime. The incentives are to be based on the following principles:

- To ensure that the goods produced are of adequate quality, available at a price affordable by consumers, while guaranteeing the efficiency and profitability of investments within a competitive environment.
- To ensure effective equal protection for entrepreneurs by the introduction of a simplified customs regime, with common tariffs for equipment and materials.
- To create a favourable investment climate through the liberalization of prices and foreign trade controls.
- To supply small- and medium-scale enterprises with support in the form of credits and various other forms of assistance to entrepreneurs.

In addition, the government endeavours to introduce measures that will overcome the de facto monopolies established by some private and public sector companies and encourage competition. To this end, prices will be deregulated over the long-term. After a review of the incentive structure the government also hopes to take specific measures to attract foreign private sector investors who have, to date, made little contribution to industrial development outside the fisheries and mining sectors. Flexibility and responsiveness to the needs of the private sector are seen as essential if the

government is to increase investor confidence and, through the medium of the employers federation and an industrial promotion service, the government hopes to establish a dialogue with private sector entrepreneurs. The government must, in its pursuit of SME development, respond to the particular problems of the modern artisanal, informal sector, which has an important source of new employment in urban areas either by establishing an institution tailored to their needs or through the removal of barriers that have, in the past, hindered their access to credit, training and business advisory services.

4.3 Towards industrial restructuring and rehabilitation

In the period up to 1978 the private sector was virtually ignored by the government. According to the World Bank, there were 77 small- and medium-enterprises operational in 1979, employing 5,000 persons, but there were no accurate government statistics. Nor did the government offer specific incentives to investors within this sector and the price-fixing system and import controls distorted the economic environment, sometimes against the interests of private investors. Equally, the heavy demands made by the public sector investment programmes, after a reduction in investment funds from abroad, restricted the private sector's access to credit inhibiting the growth of private sector ventures and bringing many small enterprises to the brink of bankruptcy.

The efforts to promote private sector industrial development since 1978 have focused on the provision of incentives to investors, through tax concessions (see Section 4.1) and the amelioration of the macroeconomic environment, as well as the removal of identified constraints on private sector entrepreneurs, most significantly the absence of adequate training and credit facilities.

During the 1970s, the size of the para-public sector expanded rapidly to more than 100 enterprises as the government sought to make up for the lack of private initiatives and establish the basic services and infrastructure needed for development. By 1984 they accounted for 20-25 per cent of GDP, about one quarter of modern sector employment and 40 per cent of gross fixed investment. Among the most important was the Société Nationale Industrielle et Minière (SNIM), which operates the iron ore mine, related infrastructure and a small steel plant. It accounts for about 60 per cent of exports and 95 per cent of industrial value added.

The government has classified these enterprises into three categories. Entreprises Publiques à Caractère Administratif et Professionnel (EPAP), which numbered 56 in 1984, provide services free of charge sustained by government subsidies. Entreprises Publiques à Caractère Industriel et Commercial (EPIC), which numbered 25, are expected to operate on a commercial basis and be financially independent. Lastly, Sociétés d'Economie Mixte (SEM), which numbered 27, operate as joint ventures between the State and private sectors. There were, in 1984, an additional four companies in which the State held a minority interest.

Unfortunately, the performance of public sector services has been weak. They have generated some 20-25 per cent of Mauritania's public external debt and, due to heavy losses, have required subsidies amounting to UM 1 billion per year, about 10 per cent of total government recurrent expenditure. In order to redress these problems and recoup the substantial investments made

the government launched a major reform of the public sector in 1984, based on a comprehensive review undertaken by an Inter-Ministerial Committee. Its two objectives were to restructure and rehabilitate, where possible by attracting private capital, those enterprises that were viable and refrain from the creation of new public enterprises in areas where the private sector has a comparative advantage.

At a general level the reforms, embodied in a new law governing public enterprises promulgated on February 25, 1984, have focused on the settlement of company debts, the adoption of a pricing policy which reflects real costs so as to reduce deficits, the introduction of cost reduction programmes and improved auditing and management procedures, including greater autonomy for managers within the para-public sector. The government also established a Cellule de Redressement de Secteur Parapublic (CRSP) to co-ordinate the rehabilitation effort and approved a plan to restructure thirty EPIC and SEM enterprises, with the five largest, including SNIM, being given priority. Of these 3 were to be liquidated, 4 were to be sold in part to the private sector, 5 were to have the scope of their operations reduced, allowing private companies to assume some of their functions, 4 were to be reclassified as EPAP enterprises, two were to undergo further studies and 12 were to retain their structure but were to be selectively rehabilitated.

The restructuring programme covered six industrial enterprises:

- Mauritanienne de Frigorifique et de Conservation (MAFCO), was liquidated in 1984 and its fish processing plant was leased to a private company in which the government holds a minority (11 per cent) interest.
- Société Nationale de Confection (SNC), a garment factory, was taken over by the FND in 1985 for rehabilitation and sale to the private sector.
- Office du Tapis Mauritanienne (OTP), a rug weaving centre, was taken over by the FND in 1985 for rehabilitation and sale to the private sector.
- Société Mauritanienne des Industries de Raffinage (SOMIR), the oil refinery, was liquidated in 1985. The government was unable to attract private capital and signed an agreement with the Algerian government in April 1985 by which an Algerian company, Entreprise Nationale d'Engineering Petrolier (ENEP), rehabilitated the plant. The \$24 million rehabilitation costs were financed, in part, by loans from the Algerian government. Another Algerian company, Naftal, was awarded a five-year management contract.
- Project Sucre, the sugar refinery and processing plant, was restructured as Société Mauritanienne d'Industrie du Sucre (SOMIS) in 1984 with the State holding a 73 per cent interest and the remainder held by national and private capital. The government planned to reduce its interest if it could find suitable private investors.

- Société National Industrielle et Minière (SNIM), remained in majority public ownership (in 1978 the government reduced its interest in SNIM to 70.9 per cent by selling shares to Arab financial and mining interests in order to raise capital for the Guelbs project) but underwent a major rehabilitation and cost cutting exercise. Investments totalling \$351 million have been mobilized since 1978 in order to implement the Guelbs project and should secure a reserve of iron ore deposits into the 1990s. The management has undertaken a cost-reduction exercise, streamlining the administration and the labour force, which was cut by 25 per cent in March 1987. In 1984 SNIM also reduced the scope of its operations with the formation of a joint venture company, Société Arabe du Fer et de l'Acier (SAFA), to manage the steel plant established in 1978. One-third of SAFA's capital is held by SNIM, one third by the Arab Mining Company (ARMICO, Jordan) and one-third by the Arab Iron and Steel Company (AISCO, Bahrein).

The next stage in the rehabilitation programme has been prepared by the Inter-Ministerial Committee and was due for presentation in 1988. This will build on the achievements of earlier restructuring programmes with particular attention to the preparation of multi-annual development plans, the improvement of management practices, accounting in particular, personnel development, further reductions in costs and develop policies that will determine relationships between the State and public enterprises. The report will also review the potential for the privatization, merger and closure of existing enterprises. The Société Mauritanienne de Presse et d'Impression (SMPI) is already undergoing a restructuring programme.

Although the government has divested from several of the public enterprises it does not envisage a wholesale withdrawal from the productive sectors and the government may, given the limited capital available in the domestic economy, undertake or participate in projects beyond the capacity of the private sector. However, these investments are to be selected carefully and undertaken only where they are justified by the returns. Moreover, unlike the 1970s, the preference is for joint ventures with foreign and domestic private sector equity participation, and the State frequently holding a minority interest. Notable government investments in the industrial sector since 1984 include: the Société Mauritano-Saoudienne pour la Reparation Navale (Mashref), with 15 per cent of the equity held by the government, 50 per cent by the Saudi El Baraka group and 35 per cent by SATEMA, which will construct fishing boats and the Société Mauritanienne de Gaz (SOMAGAZ), with 34 per cent of the equity held by the State-owned SMCPP, 33 per cent owned by Naftal and 33 per cent by Mauritanian private interests, which produces bottled gas.

The development of processing industries based on the country's agricultural, fisheries and mineral resources together with downstream linkages from industry into these productive sectors has been identified as a priority of the government's industrial development strategy. Mauritania's resource base has considerable potential to support such industries and their development may be expected to bring substantial increase in value added of products currently imported without or with little processing, to improve balance of payments through import substitution and export promotion as well as provide employment opportunities.

Although Mauritania's fish resources had been exploited since independence it was not until the adoption of the New Fishing Policy (Nouvelle Politique des Pêches) in 1978, with the promulgation of Law No.78,430 of February 28, 1978, that the fisheries sector began to be integrated into the economy. The new law sought to increase the value added accruing to the national economy by providing a firm foundation for a national fishing fleet of industrial and artisanal vessels and the development of a fish processing industry. This policy was strengthened by further legislation in 1982 which made the landing of all fish caught in Mauritania's Exclusive Economic Zone mandatory and obliged all companies fishing in Mauritanian waters to invest in shore-based facilities. The result has been a significant growth in the capacity of Mauritania's onshore freezing and storage capacity. There is, however, no true processing undertaken in Mauritania, other than the sorting and freezing of the catch, with some salting and filleting. Developments along these lines are essential for the further valorization of the country's fish resources. Facilities for the production of fishmeal, canning, salting and drying of fish, as well as the production of fish oil and frozen fish fillets may be envisaged.

The government has identified the development of linkages to the agricultural sector, in particular in the field of food processing, and the production of agricultural inputs, as a priority of its economic strategy. An important step towards the development of these linkages has been the abolition of the theoretical monopoly on trade in agricultural inputs held by the State agency Société Nationale pour le Développement Rural (SONADER), which restricted its sales to the irrigated perimeters under its jurisdiction. This has allowed private sector merchants to distribute fertilizers and pesticides and given a wider range of farmers access to these products. Furthermore, all subsidies on agricultural inputs were removed by stepped price rises from January 1985, allowing free trade in these commodities. Another important reform has been the centralization of agricultural credit facilities in the Fond National de Développement (FND) and the opening of FND offices in the main market centres. This is expected to encourage a marked increase in the consumption of fertilizers. These reforms will, it is hoped, provide a market environment conducive to the development of enterprises producing agricultural inputs.

The iron mining industry has traditionally operated as an enclave within the economy, both because of its geographical isolation in the north of the country and because the scale and technological complexity of many of the inputs it requires can only be supplied by foreign contractors and manufacturers. The recently developed gypsum mines have, on the other hand, promoted a flourishing processing industry with linkages into other manufacturing industries. Further developments in the mining sector are to be left to the private sector, with the government restricting its role to research and project formulation.

4.4 Institutional framework for industrial development

Under the terms of decree No. 84/12/PG the Ministry of Industry and Mines is responsible for the promotion, control and co-ordination of industrial activities, including the artisanal sector. Responsibility for the promotion of industry, including the preparation of feasibility studies, falls to a department within the Ministry, the Cellule d'Etude et de Promotion Industrielle (CEPI), established in 1979.

In recent years the Ministry's efforts have been directed more at the control of the industrial sector, in particular the assessment of applications under the Investment Code, and planning has been given little attention. Furthermore, there is no specialized institution or department which can assist businessmen with feasibility and market studies, investment proposals, applications for Investment Code approval and technical advice. Given the limited experience of many promoters this can be identified as a major handicap in the promotion of private sector investment, particularly in the small business sector.

A specialist investment promotion service was proposed by the CPDI in 1984: the Société d'Etudes et de Promotion Industrielle. Such an institution would provide a "bank" of feasibility and market studies, assistance to SMEs and, ideally, act as "one" window, through which private sector entrepreneurs would deal with the various government departments. In the statement of intent issued in January 1988, the government announced that steps would be taken to introduce an institution along these lines within the employers federation, the Confédération Générale des Employeurs de Mauritanie, CGEM.

Most major industrial enterprises in Mauritania are members of the CGEM and the organization already provides an informal channel for communication between the private sector and the government, an information centre and advice to entrepreneurs. The CGEM has received assistance from USAID for the organization of a programme of seminars and the execution of feasibility studies and technical assistance. In recognition of the organization's experience and close liaison with the business community the project has been accorded technical assistance by UNIDO (DP/MAU/87/007).

Given the government's strategy of improving the linkages between sectors and exploiting the country's natural resources, inter-ministerial co-ordination and co-operation are of considerable importance. Under the present institutional structure, the Minister of Economy and Finance has overall responsibility for implementation of the government's Economic and Financial Recovery Programme. There is an Inter-Ministerial Committee (Comité de Suivi), established in 1986, with a mandate to co-ordinate and supervise implementation of the recovery programme. All new investment projects, requiring foreign financing, must be approved by this committee, which includes the Minister of Finance, the Governor of the Central Bank, and the Chief of Staff at the Presidency. This committee reports to the President and the council of Ministers. Day-to-day monitoring of the recovery programme is vested in a technical support committee (Comité Technique d'Appui) which acts as a permanent secretariat for the Inter-Ministerial Committee. Centralization has proved an effective means of co-ordinating the planning process, however, there are few institutionalized channels for co-operation between ministries in day-to-day affairs. Such channels should be encouraged, with the specialist ministries providing the Ministry of Industry with details of potential linkages between the industry and the primary sector of the economy.

4.5 Financial infrastructure

In Mauritania levels of private sector fixed capital formation are low. From 1973-1980 they did not exceed 2 per cent of GDP and accounted for less than 6 per cent of total fixed investment. There was a brief surge in private sector investment during the period of economic recovery from 1981-1982 when

private sector fixed investment rose above 6 per cent of GDP in 1981. Most of this increase was directed at the fisheries sector. The level of investment subsequently slumped to only 2 per cent of GDP in 1983. To a large extent the poor levels of fixed capital formation reflect the limited number of investment opportunities within the scope of local entrepreneurs. However, the low levels and lack of adequate credit facilities has also proved a major constraint.

Traditionally, wealth has been stored in property - cattle, jewellery and buildings - or held as cash and many Mauritians, particularly those outside the main urban areas, are distrustful of banking practices. Furthermore, the low incomes of a large proportion of the population prohibit saving. Deposits held by the primary banks amounted to UM10,324 million in December 1986, of which only UM3,471 million were held on term. The concentration of the banking network in the major towns - in 1986 there was only one bank in the Senegal River basin at Kaedi - has also hindered the banks in their attempts to mobilize savings from the agricultural sector. More important in recent years, however, has been the constraint on the banks liquidity imposed by burden of uncollectable and bad loans which amounted to 51 per cent of credit and 36 per cent of the banks' total assets at the end of 1985. This situation reflects the limited experience of the five commercial banks in operation in the early 1980s and the lack of effective recovery procedures. As a result the banks faced low profits. Furthermore, although credit has expanded at a rate of 11.8 per cent per year between 1980 and 1984 an increasing proportion - 13 per cent in 1980 and 26 per cent in 1984 - of these credits were directed at the major public sector investment projects and the parastatal enterprises thereby restricting the funds available for the private sector. Since 1984, bank lending to the State has been capped as part of the IMF stand-by programme but the government has also, under the same agreement, restricted the growth in credit to the private sector - including the public enterprises - to approximately 5 per cent per year. Private sector entrepreneurs have experienced difficulty in mobilizing capital on account of the obligation to provide at least 30 per cent of the investment funds for any project out of their own resources and realistic guarantees for the remainder. Small investors, such as those within the artisanal sectors, have, on the other hand, been discouraged by banks who prefer to deal with large lump sum applications for loans. Commercial banks have, moreover, been unable to provide long-term credits - exceeding eight years - under current statutes. Limited opportunities for rediscounting through the Central Bank of Mauritania (BCM) have also led banks to restrict the availability of loans for working capital and bridging.

In January 1987, the total credit made available through the banking system was UM21,001 million, of which 89 per cent were short-term credits (less than two years), 10 per cent were medium-term credits (up to eight years) and less than one per cent were long-term credits (Table 4.2). The services sector has been the major beneficiary of these loans, accounting for nearly 50 per cent of total credits in January 1987 - with commerce accounting for 39 per cent of the total. Industry's share was significantly smaller - 22.7 per cent of the total with the manufacturing sector receiving 13 per cent of the total and the artisan sector only 0.15 per cent. While only the mining sector has received long-term loans, the manufacturing sector has received the largest share of medium-term credits - 40 per cent of the total value of medium-term credits - but these accounted for just one-third of all the credits received by the sector.

Table 4.2 Sectoral distribution of credits granted
by primary banks, January 1987

	Total UM mn	Per Cent	Percentage		
			Short- term	Medium- term	Long- term
Agriculture and fisheries	3,452	18.0	95.7	4.2	0.0
Agriculture	120	0.8	97.5	2.5	0.0
Livestock	94	0.4	100.0	0.0	0.0
Fisheries	3,194	16.6	95.5	4.4	0.0
Industry	4,362	22.7	79.1	20.3	0.5
Mining	453	2.3	94.7	0.0	5.2
Energy	99	0.5	100.0	0.0	0.0
Manufacturing	2,536	13.2	65.2	33.9	0.0
Artisanal	31	0.1	83.8	16.2	0.0
Construction	1,243	6.4	100.0	0.0	0.0
Services	9,544	49.7	92.7	7.2	0.0
Commerce	7,562	39.4	95.5	4.5	0.0
Households	243	1.2	5.3	94.6	0.0
Transport	214	1.1	88.3	11.7	0.0
Transit	501	2.6	96.8	3.2	0.0
Other services	1,024	5.3	91.1	8.8	0.0
Others	1,809	9.4	78.9	21.0	0.0
Total identified	19,167	100.0			
Total credits granted	21,001				

Source: Bulletin Trimestriel des Statistiques, June 1987, pp. 22-25.

Since 1984, the government has endeavoured to increase the amount of credit available to the private sector. In February 1985 interest rates, which had remained virtually unchanged since 1973, were increased by 2 per cent in an effort to increase levels of domestic saving and the government remains committed to maintenance of positive real interest rates. The government also anticipates that this will also bring about a more rational use of credit. Wider differentials in interest rates were also introduced in 1985 in order to favour the productive sectors and medium-term borrowers. Creditors in the agricultural and fisheries sector can take advantage of significantly more favourable terms - rediscounted medium-term credits at 8.0 per cent and rediscounted short-term credits at 8.5 per cent - than those in commerce - 11.5 per cent rediscounted short-term loans - with industry, mines and transport receiving rediscounted short-term loans at 10.5 per cent and medium-term loans at 11.5 per cent.

These reforms appear to have had some success. The agricultural sector's share of total credits has increased from 3.8 per cent in 1980 to 18 per cent in January 1987. Virtually all this increase has been directed towards the fisheries sector. Manufacturing industry's share, on the other hand, has remained relatively stable while that of the services sector has fallen. More recently the government has implemented a reform of the banking system aimed at restoring profitability and liquidity.

Although Mauritania has a commercial bank sector, investors in the industrial sector have depended heavily on credits from Mauritania's development banks. Until recently, there were two development banks: The Mauritanian Bank of Development and Commerce (BMDC) and the National Development Fund (FND). Both institutions served as official vehicles for promoting development by carrying out lending activities which commercial banks were neither able nor prepared to address. BMDC was established in 1974 and functioned both as a development bank and as a commercial bank: accepting deposits, and extending short, medium- and long-term loans. BMDC's status allowed it to participate in loans to higher risk projects. The FND was established in 1980 and began operations in 1982. In 1986, FND's UM400 million capital was owned 50 per cent by the State, 30 per cent by the Central Bank, 15 per cent by the National Social Security Fund (CNSS), and 5 per cent by the National Insurance Society (SMAR). The BMDC and FND had an institutional agreement by which the BMDC took the leading role in projects involving less than UM60 million and the FND undertook most of the projects of higher value. The volume of credits disbursed by the BMDC, at June 30 1988, amounted to UM7,212 million and by the FND, UM672 million.

In 1987 the BMDC and the FND were merged to form the Union des Banques de Développement (UBD), a Société Anonyme, with a capital of UM800 million shared equally between the Mauritanian government, the Caisse Nationale de Sécurité Sociale (CNSS), the Société Mauritanienne d'Assurance et de Reassurance (SMAR) and the Société Tunisienne de Banque (STB). The UBD's mandate is to provide technical and financial support for the creation, modernization, participation and extension of all projects for which the technical efficiency and financial profitability is demonstrated and which is expected to promote national development. The bank also conducts normal banking business. The fusion of the FND and the BMDC is not yet complete, as far as administrative and accounting procedures are concerned. For the time being, the accounting for the two parent organizations continues separately. In August 1988, the UBD launched an appeal for assistance to support the analysis and control of accounting procedures and to establish a recruitment plan. The rationalization will, it is hoped, reduce the costs of administering the development banking system, but will not affect the credit policy.

Since its operations began in 1982, the FND has granted 69 loans with a total value of UM816.2 million. The structure of interest rate charges on these loans has favoured the agricultural and artisanal sectors, from 8 per cent to 8.5 per cent as opposed to 11 per cent for the industrial sector. This has served as a further incentive to the small business sector. Nevertheless, loans to the industrial sector have dominated FND's portfolio (Table 4.3), accounting for 42 per cent of the loans granted. Loans to the industrial sector have, moreover, covered a higher proportion of the total investment cost than in any other sector. In terms of employment creation, however, the industrial sector, with a loan cost per job created of UM542,307, is notably less cost effective than the artisanal sector, with a loan cost per job created of UM244,776, and only exceeded by the fisheries sector, at UM637,000.

Table 4.3: Distribution of project loan portfolio held by the Fond National de Développement, 1986
(UM million)

	Industry	Fishing	Agricul- ture	Artisanal	Other	Total
Number of projects	9	5	1	8	4	31
Project cost UM mn	346.6	165.7	106.7	26.0	94.7	744.5
FND loan UM mn	141.0	80.9	57.2	16.4	52.9	328.4
Loan as percentage of project cost	40.8	48.8	53.6	63.7	55.6	44.1
Employment created	260	127	292	67	77	823
Percentage of loans granted 1982-1985	88.0	1.0	7.0	4.0	0.0	100.0

Source: Fond National de Développement, Annual Report, 1987.

Other than its development lending operations, FND was the organism responsible for management of the FIRVA (Fond d'Insertion et de Reinsertion dans la Vie Active), a fund established in 1985 to help displaced civil servants, young graduates, and returning emigrants to establish their own businesses. In 1986, FIRVA granted UM141.7 million to 91 applicants. As Table 4.4 indicates, none of these loans were granted to projects in the industrial sector. However, the FIRVA fund is one of the few sources of credit for projects in the informal sector - which accounts for 17 per cent of FIRVA's portfolio. In recognition of its contribution to employment generation, the government plans to replenish the fund's reserves.

Table 4.4: FIRVA: Distribution of loans, 1986

Distribution	Number	Per cent	Funding UM mill	Per cent
Agriculture	17	10	25.68	18
Livestock	33	36	55.33	39
Aviculture	5	4	8.32	6
Artisanal fishing	14	19	27.67	20
<u>Informal Sector</u>	<u>19</u>	<u>21</u>	<u>24.70</u>	<u>17</u>
Young graduates	35	38	30.47	22
Retirees	39	43	87.15	61
Emigrants	<u>17</u>	<u>19</u>	<u>27.67</u>	<u>20</u>
NKTT/NDB	35	38	54.00	38
<u>Interior</u>	<u>56</u>	<u>62</u>	<u>87.68</u>	<u>62</u>
Total:	91	100	141.70	100

Source: FND, Annual Report 1986.

The commercial banks have also been the subject of government reforms. Legislation has been introduced to tighten up banking practices and provide powers for the collection of bad debts. The Central Bank's role as a monitor of the primary banks and credit policy has been strengthened. The government has also offset the bad debts of public enterprises against bank liabilities to the Central Bank, thereby improving their balance sheets. Furthermore, the government has agreed to restrict its direct involvement in the banking sector to the unified development bank. It will then sell off two of the banks, with at least 80 per cent of the equity to be allocated to private investors, in which it holds a majority shareholding: the Banque Internationale pour la Mauritanie (BIMA) 70 per cent of whose equity is held by the Central Bank and the Société Mauritanienne de Banque (SMB) which is 55 per cent State-owned. These banks may be fused under private sector ownership. The two private sector banks, the Banque Mauritanienne Commerce Internationale (BMCI) and Banque Arabe Libyenne Mauritanienne pour le Commerce Extérieur et le Développement (BALM), will undertake reforms in line with the government's restructuring programme. A fifth private sector bank, the Banque al-Baraka Mauritanienne Islamique (BAMIS), which operates under Islamic principles, will be the subject of a special ruling on procedures. This reform package will restore the private banking sector's profitability and efficiency, thereby stimulating savings and investment.

5. RESOURCES FOR INDUSTRIAL DEVELOPMENT

5.1 Human resources

The population of Mauritania was officially estimated at 1.83 million in 1987.^{1/} During the period 1973 to 1984, the population increased at a rate of 2.1 per cent per year. The growth rate is, however, expected to accelerate to 2.7 per cent per year between 1980 and the year 2000, as improved health care and food security in both urban and rural areas leads to a further reduction in mortality rates. Projecting from the 1987 official estimate, a population of 3 million may be forecasted for the end of the century. Although not unusual in an LDC, this rate of growth presents a challenge, both from the point of improving the standard of living - currently among the lowest in the world - and finding jobs for the rapidly growing labour force.

Since Independence, the population distribution has changed markedly. In 1964 an estimated 59.0 per cent of the population lived a nomadic or semi-nomadic way of life. By 1987, after two decades of intermittent drought, the nomadic population has fallen by over 150,000 and now accounts for only 23.2 per cent of the population (Table 5.1). Areas of sedentary cultivation, principally the Senegal River valley, have had greater demographic stability. Nevertheless, the proportion of the population living in rural areas has fallen steadily from 90.9 per cent in 1964 to 65.8 per cent in 1987 (Annex Table A-5). This decline may be attributed to a large-scale migration to the urban areas by nomads, landless farmers and, after 1980, freed slaves in search of employment and food.

Table 5.1: Labour force, 1965-1990
('000 persons)

	1965	1975	1980	1985	1990
<u>Labour force by sector</u>					
Agriculture	295	298	304	...	...
Industry	10	24	35	...	...
Services	23	76	101	...	...
Total	328	398	440	485	543
<u>Labour force by sex</u>					
Male	316	382	421	464	518
Female	13	17	19	21	24

Source: World Bank, Islamic Republic of Mauritania: Country Economic Memorandum, 1985, p. 84.

^{1/} The last full census, which forms the basis for official population statistics, was held in 1976. A new census was undertaken in 1988, the results of which are not expected to be available before mid-1989.

Urban areas now account for 34 per cent of the population in contrast to only 8.3 per cent in 1964. Trends extrapolated from the 1977 census indicate an average annual urban population growth rate of 8.1 per cent - among the highest in Africa. Nouakchott, the capital, has seen the fastest rates of growth, increasing from 17,000 in 1964 to 285,000 in 1987. During the 1970s, the capital increased at a rate of 15-20 per cent per year. It now accounts for 45 per cent of the urban population in contrast to only 17 per cent a decade ago. This does not include the "temporary" urban population of migrants from both nomadic and sedentary communities who may number more than 100,000. Estimates of Nouakchott's total population range from 350,000 to 450,000. A conservative estimate of the city's labour force, assuming that the age and sex structure mirrors the national pattern, would be 91,000. However, it should be remembered that a disproportionate number of the city's new residents are male and fall within the working age group.

With such high rates of population growth and urbanization an employment generation strategy is essential. In rural areas agriculture has absorbed a large part of the growing labour force and with the completion of the irrigation projects in the south it will continue to do so. In the cities, on the other hand, the modern sector has proved incapable of keeping pace with the growth of the labour force in recent years leaving many dependent on the informal sector or unemployed.

The labour force numbered 440,000 in 1980 and, with an estimated 10,000 new entrants to the labour market per year, an increase to 542,000 was projected for 1990. A labour force numbering 700,000 would be a conservative estimate for the end of the century. These statistics take account of the low participation rates among females. Statistics prepared by the Statistisches Bundesamt Wiesbaden indicate that female participation rates were only 13.1 per cent in 1985 and, according to the World Bank women represented only 4.2 per cent of the labour force in 1980. Low levels of female participation are likely to remain a feature of the labour market for some time to come. This will relieve some of the pressure on the labour market. Nevertheless, even without detailed statistics on employment, there is evidence to suggest that the labour market cannot cope with the number of new entrants. This is particularly true of the urban labour market which has been overwhelmed by the influx of migrants from rural areas.

A World Bank report published in 1985 estimated that the total number of employees in the modern sector was 60,000, only 12 per cent of the labour force. Approximately 50 per cent of those in formal employment were employed by the government: 30 per cent within the civil service and 20 per cent within the parastatal sector, including SNIM, the national mining company. Since 1984, however, employment opportunities in the public sector have been cut drastically. In 1986, the government undertook a census of public sector employees and determined to restrict recruitment to reflect budgetary constraints. Within the parastatal sector too, the restructuring and cost cutting programme has slowed down the rate of job creation and led some enterprises to shed excess labour. In 1987, for instance, SNIM cut its work force by nearly 20 per cent. The government now looks to the private sector as the means of generating new employment opportunities and established the Fonds d'Insertion et de Réinsertion à la Vie Active (FIRVA) in 1985 in order to enable retired public sector employees, returning emigrants and graduates to carry out projects that create jobs.

Unfortunately, the private sector, in particular those enterprises within the manufacturing sector, have created few jobs. Employment in the industrial sector, other than SNIM, was estimated at 12,000, of which 10,000 worked in the construction industry. Less than 1,000 were thought to have been employed in small- and medium-manufacturing enterprises. Furthermore, over the past decade the manufacturing sector has lagged behind other sectors in the generation of new employment opportunities. A breakdown of new employees registered with the CNSS reveals that, of those registered from 1979 to 1985, 10 per cent were employed in agriculture, 9 per cent in mining, 26 per cent in construction, 12 per cent in banking and commerce, 8 per cent in transport, 24 per cent in other services and only 3 per cent, 782 persons, in manufacturing. What is more, the cost of generating employment in this sector has been extremely high: between \$15,000 and \$32,000 per job, even in the small- and medium-scale enterprises. These costs are, however, dwarfed by those in the large parastatal enterprises created in the 1970s.

Statistics published in 1985 by the Caisse Nationale de Sécurité Sociale (CNSS, National Insurance Fund), which registers all wage earning employees, confirm that only 32,571 persons were in full time, salaried employment in the private and parastatal sectors. Some 80 per cent of these had registered in the period 1979 to 1985, indicating that private sector employment had grown by only 4,400 jobs per year during the period. The World Bank estimated that only 20 per cent of new entrants to the labour force found employment in the formal sector in the mid-1980s. There is little evidence to suggest that the situation has changed markedly since. The scale of the problem is illustrated by the situation in Nouakchott, where, in 1985, according to the World Bank, as few as 60 per cent of the labour force were regularly employed in some form of wage earning activity and only 20 per cent - though a higher proportion than for the country as a whole - in salaried employment.

Despite the high levels of unemployment and underemployment some 15 per cent of all positions in the modern, formal employment sector are occupied by foreign nationals. This reflects the low level of general education and the shortage of skilled technical, clerical and administrative personnel. In the mid-1980s, for instance, the number of students graduating with four years of secondary school training was sufficient to fill only one in four of the 4,400 posts generated by the formal sector. Surveys of small- and medium-enterprises reveal that 70 per cent of the employees have no vocational training and only half were literate. According to the World Bank the levels of literacy nation-wide were scarcely 25 per cent in 1985.

The low level of education and training among the present work force is the product of an education system that suffered from low enrollment levels in the years before and shortly after Independence. In 1964 scarcely 5 per cent of the population were literate. During the 1960s enrollment levels among the primary school age group, the generation from which the ranks of middle management would be drawn today, were only 15 per cent and only 5 per cent for secondary schools.

Well into the 1970s, education was given a low priority. In the 1976-1980 Development Plan, for instance, education received only 3.7 per cent of the national budget. Subsequent budgets have, however, given education a higher profile: UM6,182 million, 6.9 per cent of the budget, was allocated to education under the 1981-1985 Plan; UM2,881 million, 22.3 per cent of the budget, in 1986; UM3,117 million, 22.7 per cent of the budget, in 1987; and UM3,346 million, 23.1 per cent of the government budget, in 1988. Education will continue to receive a large share of the budget with 11.4 per cent, UM1,596 million, of the Public Investment Programme for 1989-1991 targeted for education projects.

Increased expenditure has borne fruit in the increased enrollment of students. In the 1986-1987 academic year the primary school enrollment ratio had risen to 55 per cent and had reached 16 per cent in secondary education. An Arabic literacy campaign, the most recent in a succession of such campaigns, launched in 1988, is expected to improve the level of basic education among the older generation. Nevertheless, as the government is the first to recognize, the education system is in need of reform. It is one of the most expensive in West Africa due to the heavy dependence on expatriate staff, the high salaries paid to teachers and generous scholarships awarded by the government. Not only are the standards of basic education low, particularly in the sciences, the education system has also failed to produce sufficient trained technical and managerial staff. In the mid-1980s only 15 per cent of secondary school students received vocational training of any kind, and private sector entrepreneurs claim that the dearth of competent technical staff is one of the major constraints on industrial development.

Most enterprises are forced to recruit unskilled staff and train them on the job. SNIM, for instance, has developed its own training facilities and courses. There were two educational institutions providing specifically vocational training, one is the technical school at Nouakchott created in 1983. It provides two courses: a two-year course, the Brevet Technique Supérieur, for industrial maintenance workers - machine tools, mechanics and electronics - with about twenty students per year; and a four-year course for training and supervisory staff, with specialization in construction, with sixteen to twenty students. The second institution, the Centre de Formation et de Perfectionnement (CFPP), also in Nouakchott, provides in-service technical training for mechanics and construction, and training in office skills and basic accountancy for both public and private sector employees. The private sector contributes to the Centre's budget through a subsidy from the employers federation (GEGM). Higher levels of technical training are met entirely by Universities and technical institutes abroad.

Although the government identifies the rapid expansion of primary education as its priority in the education sector, it is also determined to restructure its education system so that it can meet the needs of the economy and to this end a major reform of the education system, to be implemented in the 1990s, is currently under review. The importance attached to the development of technical training may be judged by the allocation of UM800 million - out of a total education budget of UM1,926 million - to the construction of apprenticeship and training centres under the 1985-1988 under the Priority Investment Programme (PIP). The proposals for the Public Investment Programme for 1989-1991 are less ambitious. Six projects are included in the field of scientific and technical education for funding:

1. A study of means by which the educational system may be adapted to fit the needs of employers more closely (Total UM51 million; PIP UM2 million).
2. Development of the Technical College (Total UM107 million; PIP UM107 million).
3. Creation of a Commercial College within ENFACOS (Total UM36 million; PIP UM36 million).
4. Development of scientific education (Total UM243 million; PIP UM236 million).
5. Construction of a Hydro-Agricultural College at Boghe (Total UM122 million; PIP UM113 million).
6. Development of a Technical College at Nouadhibou (Total UM22 million; PIP UM22million).

Technical co-operation can complement these developments by providing specialist on the job training for both management and technical staff. In the past, technical co-operation has been restricted almost entirely to the public sector. However, enterprises in the private sector could also benefit from the advice and participation of experienced personnel. This assistance could be provided through upgrading courses made available to existing and new enterprises in the private sector through the CFPP. These facilities could be supplemented by SNIM'S training school which has an excellent record and ample facilities. There is a danger that the training school could be closed as part of SNIM'S restructuring and cost-cutting programme. However, a USAID report, prepared in 1986, revealed that private sector entrepreneurs were interested in maintaining the school for apprenticeships and that such a programme could be established with little modification to the school syllabus. The report proposed that USAID would fund scholarships to the school. The current status of this project is not known.

However, even with the expansion of existing and the development of new technical institutions Mauritania will still lack educational facilities for management and technical personnel at the highest grades who require a broader range of skills than can be provided from the domestic technical institutions. These personnel are currently trained abroad. Training facilities for managerial staff will be provided by the new Industrial Promotion Service within the CEGM, but these will only be of an introductory kind. Until training facilities of a sufficient calibre are available within Mauritania, the opportunities for Mauritians at technical institutions and universities abroad must be expanded if the country is to substitute local staff for expatriates in supervisory and senior managerial roles as well as on the shop floor.

5.2. Agricultural resources

Livestock herding is the most important activity in the rural economy, contributing UM10,909 million to GDP in 1985, 20 per cent of the total and over eight times as much as the agricultural sector proper. Estimates of herd strength vary considerably in the absence of an accurate annual census. Official statistics give a total herd strength, in 1987, of 1.2 million zebu (humped) cattle, 7.2 million sheep and goats and 850,000 camels.

The number of herd animals grew rapidly through the 1960s as a result of a vaccination programme and the improvement of water supplies, formerly the main constraint on herd growth (Table 5.2). However, increased stock levels took little account of the carrying capacity of pastures in the fragile steppes bordering the Sahara. Consequently, a prolonged drought from 1968-1973 led to the loss of approximately one-third of the national herd. Although the stock levels recovered by the early 1980s, a further drought in 1982-1984 led to heavy losses. As a result of land degradation and poor herd management, over-stocking in particular, significant fluctuations in herd size are likely to remain a feature of the pastoral economy.

Table 5.2: Estimated livestock population, 1968-1986 (selected years)
('000 head)

Type	1968	1974	1980	1982	1984	1986
Cattle	1,920	1,100	1,197	1,300	1,100	1,200
Sheep and goats	7,000	5,800	7,551	7,550	5,692	7,200
Camels	700	670	720	750	697	820

Source: Ministry of Rural Development.

Traditionally, the pastoral economy has had few links with the modern sector. The herds have been the mainstay of a nomadic subsistence economy and the animals' value has been estimated in social (status) rather than economic terms. Since the early 1970s, however, many of the nomads have abandoned pastoralism to seek work in the cities and have sold their herds to urban merchants. They have invested in the herds as a source of foreign exchange and a large, but unknown, number of animals are sold in countries to the south for convertible currency (CFA). Consequently, despite the growing participation of the modern sector in the pastoral economy, the links between the pastoral and industrial sectors have remained weak. The slaughtering of cattle and use of animal products is still restricted to an artisanal level and attempts to introduce industrial processing facilities have failed. Furthermore, herd losses and the export of animals combined with a growing demand for meat have led to Mauritania becoming a meat importer. In 1983, a drought year, domestic meat production met less than half of the national demand. Production recovered the following year but, in the long-term, meat imports are likely to increase.

Less than 1 per cent of Mauritania receives sufficient rainfall to sustain rainfed agriculture. Both crop production and the area under cultivation vary markedly with rainfall (Table 5.3). In the 1987-1988 season, for instance, the cultivable area attained 252,400 hectares, 34.6 per cent more than in the preceding year. Of this, Diiri (rainfed) agriculture accounted for 76.8 per cent of the total while Walo (floodplain) culture, both chiefly millet and sorghum, diminished by 29,000 hectares to 14.1 per cent of the total. The remainder was accounted for by irrigation, mostly rice and maize.

Since the early 1960s, when cereal production met about half domestic demand, production of the traditional cereal crops has stagnated. This has been attributed to the predominate sharecropping tenure regime - which discourages tenants or landowners from investing in the land, the use of traditional methods and few inputs, in turn a result of inadequate rural credit schemes. Over the same period drought and pest infestation have, however, led to fluctuations in harvest sizes from year to year.

Table 5.3: Production of major crops, 1981-1988
('000 tonnes)

Crop	1981	1982	1983	1984	1985	1986	1987	1988 ^{a/}
Millet and sorghum	31.0	40.0	20.0	6.0	6.5	80.2	93.1	97.0
Maize	5.0	5.1	6.1	4.5	11.2	1.2	2.9	0.9
Rice	9.3	11.3	13.6	18.0	14.8	14.8	19.8	30.5
Niébé	1.0	1.4	2.4	1.0	0.0	0.0	4.6	10.0
Wheat and barley	1.0	1.4	2.4	1.0	0.0	0.0	4.6	...
Dates	0.3	0.3	0.3	0.5	0.0	4.5	...	...

Source: Ministry of Rural Development and Central Bank.

a/ Estimate.

Increasing demand and stagnating production have led to a widening cereals deficit. Production has covered only 20 to 30 per cent of domestic demand in the past decade and fell to as little as 10 per cent of domestic demand in the drought year of 1983-1984. In 1986 and 1987, on the other hand, domestic production reached almost 40 per cent of estimated grain requirements following two years of normal rainfall.

The government's main response to the food crisis has been to increase the area under irrigation. Irrigated rice production has tripled since the 1970s, due to a steady expansion of the irrigated area, which reached 6,500 hectares by 1985. Even so, rice production amounted to less than 5 per cent of the country's cereals demand in 1985. Under the 1985-1989 Economic and Financial Recovery Programme the government hoped to bring another 2,000 hectares a year under irrigation through a multi-donor irrigation project on the River Senegal at Bonghe and the construction of a series of dams in central and western Mauritania. By these means the government hoped to raise the level of rice and maize production to 35,000 by 1990. At the same time, the government has sought to provide incentives for cereals producers by increasing producer prices by at least 20 per cent in February 1985. Despite these measures there is little prospect of cereal production keeping pace with the growth in demand in the near future.

Other than the main cereals crops, a small amount of root and tuber crops are produced in market gardens around Nouakchott, Rosso and in the Adrar. Production is insufficient to merit a small processing industry. Mauritania also used to be the world's second largest exporter, until 1972, of gum arabic, the sap of the Senegalese accacia, known locally as erwar. Exports were between 6,000 and 8,000 tonnes. But, following the death of many trees during the drought of the early 1970s, production has dwindled to an average

of 150 tonnes in the mid-1980s. Gum arabic is widely used in the pharmaceuticals industry and has a market price of about \$5 per kg. This might make the regeneration of the plantations remunerative and the European Development Fund (EDF) has funded a pilot project supported by a training programme financed by the Organization Arabe pour l'Agriculture (OAA). If this project proves a success, the processing of gum arabic may provide the starting point for domestic pharmaceutical industry.

5.3 Fish Resources

Mauritania's fish resources are among the richest in the world, comparable with those of Senegal and three-quarters those of Morocco. The annual potential of catch is estimated at 600,000 tons without danger of over-exploitation - though there is a need for more research to identify the stock levels of migratory species and institute a system of control in an industry which, by its very nature, escapes direct government supervision. Some 100,000 tons of the potential catch are demersal fish and cephalopods. The latter, especially octopus (Genus Octopodidae), squid (Genus Loligo) and cuttlefish (Genus Sepia), are the most sought after because of their high market value. Among the demersal species hake (Genus Merluccius) is the most important but trawling also brings up sole and bream. Approximately 440,000 tons of the potential catch are pelagic species largely mackerel (*Scomber scombrus*) and horse mackerel but including 10,000 tons of tuna (Genus *Thunnus*). There are also 40,000 tons of near-shore fish, mostly tollo (*Mustelus mustelus*), pero (*Psettodes belcheri*) and *Sparides sciaenides*. Table 5.4 shows the rapid growth of fish exports during 1980-1985. In 1986, the volume of fish export suffered a decline.

Table 5.4: Fish exports, by types, 1980-1986
('000 tonnes)

	1980	1981	1982	1983	1984	1985	1986
Fresh and frozen	61.8	136.4	164.0	278.2	237.1	335.1	309.6
Salt and dried	0.4	0.5	0.5	0.4	0.7	0.4	0.6
Shellfish	3.2	0.3	0.8	0.4	0.6	0.3	0.4
Fish oil and meal	9.6	6.1	14.2	32.9	24.3	37.9	31.6
Total	77.1	143.4	179.9	312.1	262.8	373.7	342.2
Total value in UM million		4,551	5,849	8,773	9,453	17,265	15,358

Source: Banque Centrale.

Since 1979, the government has actively encouraged the exploitation of these resources by nationals and restricted the number of fishing licences granted to foreign fishing fleets. As a result the national industrial fishing fleet expanded to 66 freezer trawlers and 35 fresh fish trawlers, most of which formerly flew foreign flags. The government has also encouraged the growth of an artisanal fleet of small inshore vessels numbering 650 to 700 craft. The total fish catch was 513,000 tonnes in 1983, the last year for which official statistics are available, though the actual catch was probably larger due to illegal fishing. This has led to some concern that the fish stocks are being over-exploited and there is evidence that production, particularly of the more valuable species, has stagnated in recent years. In an effort to prevent over-fishing the government reserved demersal species for the national fleet in 1987.

The fishing industry is, without doubt, potentially one of the most important resources for industrial development. However, despite the government's strategy of increasing the value added accruing to the national economy through the Mauritanianization of the fishing fleet and the development of processing industries, the fishing sector remains an enclave within the national economy with few linkages into the manufacturing sector. The fact that virtually all the fish catch is exported explains, in part, the poor development of the processing industry.

Local consumption is estimated only 6 kg per year per capita. Mauritians prefer meat (mutton) to fish which they regard as the food of the poor. The recent drought has led to some change in diet, with families having incomes of less than FF1,100 now eating more fish than meat, but educational programmes are needed if fish is to become acceptable to all income groups. The industry's growth has been fuelled by external demand. Exports of fish and fish products have expanded rapidly since 1979 and became the principal source of Mauritania's foreign exchange in 1983. The volume of exports fell significantly in 1984 when the MAUSOV, the joint Mauritanian and Soviet Union fishing company, suspended operations pending an agreement with the government - indicating the fishing industry's continued dependence on foreign fishing fleets for the exploitation of its marine resources. The results for 1986 were also disappointing, indicating a 12 per cent fall in export revenues and an 8.4 per cent fall in exports by weight. Preliminary results for 1987, however, indicate that the fish catch has recovered but there is still concern that overfishing will lead to further reductions in the catch in the long-term.

The dependence on export markets is a handicap to the local processing industry because most industrial fishing fleets have their own on-board processing facilities. Although the government made the landing of catches within Mauritanian waters mandatory in 1984 almost all the pelagic fishing fleet and some of the demersal fishing fleet have special permission to process and transfer their catches at sea. Landings at Nouadhibou, the main fishing port, are limited to the demersal fleet and the processing facilities there are export-oriented. Most of the fish consumed locally are landed by the artisanal fleet.

The government regards the expansion of the national fishing fleet at the expense of foreign vessels as the key to the development of these resources and the future development of processing industries. In order to achieve these goals it hopes to stimulate private investment, which has formerly been slow to take initiative, through the revision of utility tariffs, improved marketing, training, the rehabilitation of on shore and landing facilities and preferential access to credit. Artisanal fishing, with its relatively high employment potential, will be particularly favoured. These developments will, it is hoped, increase the proportion of the catch passing through on-shore and Mauritanian fishing fleet processing facilities.

5.4 Mineral resources

High grade iron ore (63-64 per cent Fe content) and silicious iron ore (54-64 per cent Fe content) deposits, near Zouerate in the north of the country, have been exploited since 1963 and provided the primary resource for the early development of the Mauritanian economy. In recent years, however, the State mining corporation Societe Nationale Industrielle et Mines (SNIM), formed by the nationalization of private interests in 1974, has faced a declining market for iron ore, soft world prices, rising costs and the decline of reserves at the existing mine. In order to overcome these problems, SNIM has instituted a major restructuring and rehabilitation programme.

Iron ore production at the Zouerate mine fell from a peak of 11.9 million tons in 1974 to 7.4 million tons in 1983 (Table 5.5), due to the fall in world demand which forced small and inefficient mines in many other countries to close. World market demand recovered slightly in 1984 and 1985 allowing the mines to step up production. Nevertheless, the prospects for a full recovery in the world iron ore market in the next decade remain bleak and in mid-1987 the company faced a structural financial deficit after amortization, debt servicing and payment of the 10 per cent sales tax.

Faced with the projected exhaustion of existing ore mines in the early 1990s, SNIM has, despite the poor prospects of an increase in market demand, been forced to undertake large investments in order to develop new reserves for the 1990s. In early 1985, a new mine was opened near El Rhein, 25 km north-east of Zouerate. The reserves at this Guelb - outcrop - deposit and those nearby at Oum Arwagen and Merizet are thought to total 500 million tons. However, the Fe content is only 38 per cent necessitating the construction of an enrichment plant. The total capital cost of the project, \$351 million (funded by the World Bank, France's CCE, the Islamic Development Bank, the European Development Bank, and Arab sources), has added considerably to the company's debt burden. Scheduled repayments for the period 1985-1989 totalled \$120 million in addition to \$60 million in interest payments.

SNIM's financial difficulties have been aggravated by overstaffing - the number of company staff rose to a peak of 6,000 leading to a decline in labour productivity by half in the ten years to 1985 - and in an effort to reduce operating and overhead costs SNIM shed nearly 20 per cent of its staff in 1987. The government has also agreed to a 50 per cent reduction in royalty payments in order to strengthen the company's financial situation. Further cost reductions and improvements to management practices will be undertaken as part of the SNIM's rehabilitation plan, which will be financed by new funding worth \$56 million agreed by the company's co-lenders in 1987.

Table 5.5: Production and exports of iron ore, 1974-1987 (selected years)

	Production		Exports	
	('000 tonnes)		('000)	UM
	Total	Guelbs	Tonnes	Million
1974	11,727	0	11,666	5,565
1976	9,543	0	9,664	6,689
1978	7,083	0	6,465	4,102
1980	8,939	0	9,313	6,086
1981	8,473	0	8,610	7,848
1982	8,208	0	7,753	7,227
1983	8,721	0	7,385	7,295
1984	9,000	0	9,527	9,170
1985	9,203	946	9,333	11,530
1986	9,262	1,499	8,929	10,512
1987	9,108	1,444	9,002	9,515

Source: Société Nationale Industrielle et Minière (SNIM).

Despite the poor state of the market, the continued exploitation of iron ore reserves in Mauritania may be justified by the extent of the deposits and the relatively developed nature of the infrastructure (in particular the port facilities and the 675 km rail link). Improvements in management practices and the reduction of costs should strengthen SNIM's financial position but the company will probably depend on external financial support - for the development of new resources at least - for some time to come. Nevertheless, SNIM is likely to receive continued support from lenders who, whilst eager to see the company become a financial success, are also aware that the company's closure would be catastrophic for Mauritania's economy.

As a resource for the industrial sector, however, the iron ore mines are of less significance. Until the development of the Guelbs deposits in 1985, the iron mined in Mauritania was exported unprocessed. At Guelbs-El Rhein the processing is limited to the enrichment of the ores before export and there is little linkage to the other sectors of the economy. Arab partners (SAMIA, the gypsum mining concern, in particular) have expressed interest in establishing a 4 million tonne per year iron ore pelletization plant near Nouadhibou, upgrading the 40-45 per cent iron content output from the Guelbs to 65-68 per cent iron content pellets. Output would be exported to the Maghreb region and to Egypt. There are no prospects of smelting facilities being developed: there is surplus capacity world wide, an absence of other primary inputs for a Mauritanian iron smelting industry - water and cheap electricity, and limited domestic and regional demand for iron and steel products. The small steel complex at Nouadhibou (operated by the Société Arabe du Fer et de l'Acier refurbished in 1987 with a production capacity of 12,000 tonnes per year for the steel plant and 36,000 tonnes per year for a rolling mill) currently recycles scrap material, availability of which is adequate for its present capacity and for current levels of consumption, even allowing some exports.

Exploitation of copper ore deposits close to Akjoujt (250 kilometers north-east of Nouakchott) began in 1970. Production peaked in 1973, at close to 22,000 tonnes, however, the low grade of the oxide ore, coupled with technical problems and a weak market, forced operations to a halt in 1978 (the foreign shareholders in SOMIMA withdrew in 1975). Analysis of the mine tailings, revealing a workable gold content (4-5 g/t), has encouraged renewed interest in the deposits. A new company, the Société Arabe des Mines de l'Inchiri (SAMIN), formed in 1981 and owned by the government (37.5 per cent) and Arab financial interests, plans to resume operations in 1989. Annual production will reach 500 kg of gold and 32,000 tonnes of copper concentrate from sulphide ores by the 1990s. The total cost of the project is around \$40 million. The Office Mauritanien de la Recherche Géologique (ORMG) has recently signed an agreement with the German company Otto-Gold for evaluating further copper deposits between Moudjerid and Diaguily. The ECU 1.5 million project is being financed by the European Development Fund.

Gold deposits have also been discovered in dry stream beds (khatts). Feasibility studies are being undertaken, financed by UNDP, to assess their value and the means of exploitation.

Gypsum deposits north of Nouakchott, estimated 4 billion tonnes, among the largest in the world, were exploited from 1973. The rock was transported to Senegal in lorries which returned laden with Senegalese cement. With the opening of Mauritania's cement factory in 1979, the transport costs became prohibitive and the operation, after reaching a peak output of 16,000 tons in 1979, closed in 1981. Quarrying at a new quarry at Sebka N'Drahamcha, some 5 km northeast of Nouakchott, resumed in 1983 under SAMIA, the Société Arabe des Industries Métallurgiques Mauritano-Koweitienne. Output which reached 19,402 tonnes in 1987 (Table 5.6) is planned to rise to 120,000 tonnes in the 1990s. The product is transformed into plaster locally and has linkages to a ceramic industry.

Table 5.6: Production and exports of gypsum and plaster, 1985-1987
('000 tonnes)

	1985	1986	1987
<u>Production</u>			
Gypsum	5,470	12,642	19,402
Plaster	3,900	10,302	14,809
<u>Exports</u>			
Plaster	0	7,873	8,615

Source: Poste d'Expansion Economique, Ambassade de France, Nouakchott.

Good quality deposits of phosphate rock at Bofal (near Kaidi close to the Senegal river) have been known about for some time. A study prepared in 1984 established that there were 93 million tonnes of mineral at 20 per cent P₂O₅ tenure. A consortium including SNIM, BRGM, GEOMINES and SSPT have shown interest in developing the deposits, with production of 4.7 million tonnes per year (2 millions tonnes of concentrate equivalent). However, the remote location of the deposit, the large investment required to start recovery - estimated at UM35.4 billion in 1984 - and the current low market price for phosphates have discouraged its implementation. Nevertheless, the prospect of using this resource for direct application in the surrounding Senegal river valley area continues to appeal to the government, which hopes to secure multilateral funding for a pilot project.

Sulphur deposits have been located some 80 km north-east of Nouakchott. A consortium grouping various Arab and African partners was established in 1987 with a view to exploiting this reserve, although feasibility studies have yet to be completed.

Although there has been no systematic survey of the geological resources of Mauritania, a number of other potentially exploitable minerals have been identified. Some 11 million tonnes of salt lying in pans close to the coast could be developed with minimal investment, although transportation costs limit the viability of such an industry. Deposits of beryllium, chalk, kaolin, lead, rutile, titanium, tungsten, uranium, zinc, zircon, and various quartz-type semi-precious stones have been identified. The 1989-1991 Public Investment Programme has planned to research deposits of beryllium and tungsten to assess their economic and technical viability, although these projects await funding.

5.5 Water resources

Water prospection and well drilling programmes, particularly in rural areas, have been financed by numerous development loans over the past few years. Nevertheless, only 13 per cent of city dwellers had direct access to water distributed through systems in 1986; 80 per cent obtain it only through resale at inflated prices and 7 per cent are supplied from casual sources such as often polluted rivers. The rapid growth of urban areas together with the inadequate, and often decrepit condition of existing distribution networks has led the government to identify an improvement in the supplies as a government priority, ahead of the needs of industry. The 1985-1988 Development Plan allocated UM7.7 billion to urban developments, of which UM6.93 billion was for water supplies (UM4 billion for Nouakchott and UM1.7 billion for Nouadhibou). A recent World Bank loan allocated \$20 million to the improvement of the Nouakchott urban water supply.

Water distribution is the preserve of the Société Nationale d'Eau et d'Electricité (SONLEC), which sets prices as a function of consumption, irrespective of distinctions between industrial, domestic, and agricultural usage. Little account is taken of the needs of industry. The food processing sector - including fish processing - requires water with low contamination, low salt content and regular supplies. In the rural areas and even in the capital such requirements are not met. A long-term water use strategy, taking into consideration industry's requirements, must be developed if this basic industry is not to hold back the growth of the food processing sector.

Table 5.7: Production of water in major urban centres, 1985-1987
('000 cubic metres)

Urban centre	1985	1986	1987
Nouakchott	5,548	4,950	7,600
Nouadhibou	1,200	1,280	1,532
Rosso	439	296	388
Kaedi	510	446	477
Akjoujt	178	223	157
Atar	72	75	147
Others	208	218	225
Total	8,155	7,488	10,526

Source: SONLEC.

5.6 Energy resources

Mauritania's sparse reserves of wood have long been exploited for fuel and transformation into charcoal. Although the urban areas have largely switched to butane, petroleum and electricity, fuelwood still accounted for about 50 per cent of total energy consumption in the mid-1980s and as much as 90 per cent of household demand according to government sources. There is widespread concern that the level of exploitation has contributed to the land degradation by removing the sparse vegetation cover. Furthermore, at current rates of exploitation - 800,000 cu m per year, about eight times as fast as the forest can regenerate - forest and scrub reserves could be exhausted by the end of the century. Imports of charcoal from neighbouring Senegal, once a market for Mauritanian charcoal, began in the mid-1980s, indicating the level of deforestation. The introduction of alternative cheap energy sources in rural areas warrants afforestation. Progress was made with the opening of a 3,000 bottle per day capacity butane gas bottling plant at Nouakchott in December 1987. In the meantime, firm steps towards the protection and regeneration of the country's remaining forest reserves are needed.

Declining reserves of fuelwood and the development of the modern sector have brought about a steady growth in the country's oil consumption, the second most important primary energy source, all of which is imported. From 1975 to 1983 the share of total energy consumption in total imports rose from 33 per cent to 55 per cent. In recent years however, the cost of oil imports has declined due to the fall in world oil prices. In 1987, the cost of oil imports amounted to UM2,639 million, 15.1 per cent of total imports, as compared with UM3,439 million, 22.4 per cent of total imports, in 1986. However, oil is likely to remain a substantial proportion of total imports well into the future and the financing of these imports will remain a considerable burden on the balance of payments.

Although five production sharing agreements have been signed since 1981 - with Mobil Oil, Oxoco International, Texaco, Amoco Mauritania and Atlantic Richfield - none of the concessions have borne fruit as yet. At present only two companies are prospecting. Consequently, even if oil is found, Mauritania is likely to remain an oil importer well into the next decade.

In the mid-1970s an oil refinery with a capacity of 1 million tonnes per year was constructed as a means of reducing oil import costs. Having lain idle from its completion till April 1987, apart from a short operation in 1982-1983, the plant, now under Algerian management, supplies domestic demand for oil products. About one-third of the annual output of 25,700 tons of butane, 275,000 tons of petrol, 83,000 tons of paraffin, 200,000 tons of gas oil and 357,000 of fuel oil are consumed domestically. The government purchases the products at world market price equivalent under the terms of a five-year agreement signed in 1985. The substitution of domestically refined oil products for imports will, it is anticipated, have a beneficial effect on the country's balance of payments situation.

Mauritania's electricity supply is a major handicap to the development of light industry due to its high cost - assessed in French centimes, Mauritania's electricity charges are the twelfth highest of eighteen Francophone African countries - and the unreliability of supplies. The generating system has been overstretched in recent years by the growth in demand - 5.4 per cent annually between 1974 and 1980 and subsequently 7.8 per cent (Table 5.8). Mining and manufacturing - though the share of the latter is unlikely to be significant - accounted for 63 per cent of total electricity consumption, commerce and the administration 10 per cent and households 26 per cent. Rapid growth is expected in this sector. At present less than a third of urban households have access to electric power.

Installed capacity, all oil powered, amounted to 105 MW in 1983. Only 45 MW of this, on five urban grids, was held by SONLEC. The remainder was operated by private consumers, principally SNIM, SAMIA and SOMIR. In addition there were a large, but unknown, number of small generators used by industrial and commercial establishments as back-ups for when the public supply fails and, in increasing numbers, as a sole source of electricity.

Table 5.8: Production of electricity in major urban centres, 1985-1987
('000 KWh)

Urban centre	1985	1986	1987
Nouakchott	42,951	50,964	60,711
Nouadhibou	29,274	35,585	36,200
Rosso	1,403	1,610	1,939
Kaedi	1,782	1,684	2,089
Akjoujt	...	...	...
Atar	1,102	1,244	1,303
Others	253	588	725
Total	76,765	91,675	102,967

Source: SONLEC.

In an effort to improve the urban electricity supply SONELEC is currently rehabilitating its facilities at Ksar (Nouakchott), with the new installation of 4 x 7 MW generators, which will go on line in 1989, and upgrading the distribution system at Nouadhibou. In 1988, capacity at Rosso increased from 400 kw to 880 kw with the installation of new generators. The government also hopes to take advantage of potential hydro-electric power sources with the installation of a planned - but unlikely to be attained - 800 gwh turbine capacity in the Manantali and Diama dams, 15 per cent of which would be available to Mauritania.

These developments will alleviate the problems of electricity supply in the main urban areas, though it will be decades before the electricity grid extends into the smaller urban centres. The problem of high electricity charges is, on the other hand, likely to persist. SONELEC, the electricity utility, has performed poorly over the past few years, incurring financial losses in almost every year because of excessively high production costs, a precarious cash flow position due to its poor billing and debt collection procedures, widespread illegal connection to the network, and high distribution losses. Furthermore, the dependence on oil powered generators is inherently expensive, even at a time of low oil prices. These costs have been passed on to the consumer; in 1985 electricity prices were increased by 10 per cent in an effort to reduce the utility's losses. The industrial sector bears a disproportionately large share of this burden since the tariff structure offers few concessions for large consumers. As a World Bank study pointed out, a reduction in the tariffs charged to light industry could help reduce costs by expanding utilization of its present capacity. However, the government has yet to take action on this pressing issue.

Besides the proposed hydro-electric developments the government has actively encouraged the development of innovative alternative power sources. Considerable potential exists for the establishment of aeolian power generators, given the strength of the Harmattan winds, and the use of solar power for heating water in public buildings. Two companies have been established recently in Nouakchott to capitalize on the availability of alternative energy sources: Etablissements Deyloul (l'Entreprise Mauritanienne pour la Mise en Valeur des Ressources Naturelles Deyloul) opened a small workshop in 1987 fabricating windmills and water pumps; while STA (Société de Technologies Appropriées) started a factory in 1984 producing solar ovens (with prospects for production of photovoltaic systems).

5.7 Infrastructure

The development of infrastructure is essential to secure an even spread of economic benefits, which, at present, are concentrated around the capital and ports. For these reasons the government placed the development of infrastructure at the top of its investment priorities in the early Third Development Plan (1976-1980), under which it received 45.4 per cent of actual investment. This share has since decreased but it consistently remained above 10 per cent of planned expenditure. Unfortunately, Mauritania's infrastructure is weak, expensive to build and maintain and difficult to justify when set against the low levels of traffic.

Only two major metalled roads exist, one running 450 km north-south from the copper town of Akjout, via Nouakchott to Rosso on the Senegal river, and the other running 1,100 km eastward from the capital to Nema, near the frontier with Mali. Despite its high cost and justifiable criticism of the route selected, it is contended that such investments are essential not only to market the crops produced in the (Senegal river valley) zone but also to the development of light industry in the zone. In addition, there are some 540 km of gravel-based roads (mainly in the south) and 5,105 km of other tracks - officially designated as mediocre. Plans to build a coastal highway from Nouakchott to Nouadhibou and a road following the Senegal river from Rosso to Kaedi have been shelved, pending funding. There is only one railway in Mauritania, laid to link the iron ore deposits near Zouérate to the port facilities near Nouadhibou, 675 km away.

The port at Nouadhibou is more important than that of the capital due to the large iron ore terminal, its role as the base for Mauritania's fishing fleet and the Nouadhibou oil refinery. In 1987, there were 3,557 ship movements: export volume was 8.5 million tons of iron ore and 384,000 tons of fish, while imports reached 99,000 tons. The mineral quay can receive vessels of up to 150,000 tons capacity, the limit frequently being set by the capacity of the port of reception. The port of Nouakchott, Port de l'Amitié, recently developed with aid from the People's Republic of China, serves as the major port for imports of food and capital and consumer goods. In 1987, imports were 414,206 tons, while exports attained 28,994 tons only. Cargo handling and warehousing at the port is entrusted to the private sector.

The river Senegal is navigable in the rainy season by small coastal vessels as far as Kayes (Mali) and by river vessels as far as Kaidi. In the dry season, the limits are Rosso and Boghi, respectively. The construction of dams at Diama and Manantali will reduce the possibility for river traffic.

All international passenger movements, and the majority of domestic business trips, are by air. There are two international airports, at Nouakchott and Nouadhibou, each with half a dozen scheduled services per day, ten smaller regional airports, and 13 landing strips scattered throughout the country.

Telecommunications are assured by satellite links with Arabsat and Intelsat, in service since 1985/86. Earth satellite stations are situated at Nouakchott and Nouadhibou. There is an international communications centre at Nouakchott. All these establishments are operated by the Office des Postes et Télécommunications (OPT).

5.8 Industrial estates

In September 1987, the Council of Ministers adopted a project approving the establishment of industrial zones around Nouakchott as part of the city development between 1988 and 2000. Industrial zones have hitherto developed in a haphazard way and the anarchic and rapid development of the city has resulted in mixed occupation zones, with factories rubbing shoulders with villas, artisanal workshops, and shanty-towns.

The newly-designated zones, the first of which, covering 130 hectares, will be situated close to the port and hopes to attract industries associated with maritime activities, will be reserved for industrial occupation only, with provisions being made to dissuade beneficiaries of land grants from converting land to living quarters. Furthermore, such land will not be available for speculation, with only companies with sufficient financial capacity to develop their plots receiving allocations. Private transfers will be forbidden. Land prices within these zones will be fixed at UM300 per sq metre. In the third, evolutive zone, which has yet to be defined, prices for industrial development will be fixed at UM100 per sq metre. These prices compare favourably with current land prices of around UM400 per sq metre and the extremely high cost of levelling and provision of services at an unprepared site. Details of the infrastructural facilities to be provided in industrial development sites are not yet available. The Public Investment Programme for 1989-1991 has, however, allocated UM218 million for the development of the site but is still awaiting funding.

Further developments along these lines are planned. The 1989-1991 Public Investment Programme has allocated UM14 million for a feasibility study to assess another industrial zone at Nouadhibou and another UM240 million for studies and the development of three regional industrial zones. Funds for these projects have not yet been forthcoming.

5.9 The role of technical assistance to industry

Mauritania benefits from considerable multilateral and bilateral assistance, consistent with its status as a least developed country. According to a recent UNDP report,^{1/} external aid to the country was estimated at \$241 million in 1986, (\$218 million in 1985, \$213 million in 1984, and \$259 million in 1983, at current prices). Of the \$158 million identified assistance in 1986^{2/} only 6 per cent went to non-mining industry (mostly Algerian aid for the petroleum refinery and associated projects, and grants to the national development fund for the promotion of small-scale industry).

Figures published by the OECD^{3/} show that DAC aid from France reached \$33 million in 1986. Projects completed by UNIDO in the past are listed in Annex B. There is one major project in which UNIDO is involved at the present, Development of the Private Sector (UNIDO project No. DP/MAU/87/007).

One of the major aims of the government's programme is promotion of the private sector and reduction of the role of the State in the economy. Nevertheless, the government recognized that the lack of an institutional framework for private initiatives, together with the quasi-absence of financial and advisory services, was a constraint to development. As a result, the government approached UNIDO for assistance in developing a programme to improve such services, in co-ordination with the Employer's Federation of Mauritania (CEM) and USAID.

1/ UNDP, Coopération au Développement, 1983-1986.

2/ Excluding budgetary aid, French bilateral technical assistance and certain flows from Arab countries - UNDP acknowledges its reporting system to be incomplete and estimated such flows to arrive at its global figure for assistance.

3/ OECD, Development Co-operation, 1987.

The Mauritanian authorities are anxious to rehabilitate the technically sound Nouakchott sugar refinery complex. The refinery has been inoperational since 1977, largely due to the insufficiency of adequately trained local staff and problems with input procurement. The resumption of refinery operations would provide employment (an estimated 200 jobs), make a significant contribution to foreign exchange savings (estimated at \$7.6 million per year in a preliminary feasibility report), and could favour the development of new agro-industries (sugar cane could be grown in the Senegal river valley), possibly allowing the development of other downstream industrial activities (sugar cane waste can provide a source of ethyl alcohol, as well as animal feed and fertilizer). This project is currently in abeyance, pending the results of actions taken by UNDP.

Mauritania imports all brand-named chemical-based pharmaceuticals (locally-available traditional medicines are widely favoured, however). Projects to develop a pharmaceutical industry have been under consideration for some time, and may benefit from assistance under the wider aid given to the employer's federation (CGEM). Rejuvenation of gum arabic plantations (which suffered particularly with the droughts of the 1970s and early 1980s) could provide the basis for such an industry.

SAFA has been considering the possibility of co-operation with UNIDO since 1985, seeking assistance with rehabilitation of its installations and in improving its management systems. A more productive plant would have significant export opportunities, although SAFA already enjoys a monopoly position in the local market.

After prolonged discussions with SAMIN, with a view to exploiting the gold content of the residue of the Torco mine, UNIDO is still awaiting an official request for assistance. The project may eventually be realized through private funding (from shareholders in SAMIN).

The Ministry of Industry and Mines has reconfirmed its interest in this project, stating that an official request for complementary assistance will be shortly delivered to UNIDO, via UNDP. Bilateral (French) funding has already been secured for the project. The Ministry of Industry and Mines has reconfirmed its interest in a feasibility study for exploiting phosphate deposits, indicating that a formal request will shortly be presented to UNIDO. Preliminary feasibility studies will be required before the viability of a full-scale investment programme can be established. Mauritania's economic recovery programme will include revision to the systems of industrial investment incentives and promotion. The Industry Directorate would like to benefit from UNIDO's experience in developing such systems (particularly that gained in Senegal) Such assistance would include the establishment of an industrial information centre, for which preliminary studies would need to be conducted by AIDO in collaboration with UNIDO.

ANNEX A
STATISTICAL TABLES

Table A-1: Manufacturing enterprises employing more than twenty persons, 1980

ISIC 31 Food production, drinks and tobacco	10
Abattoir	1
Fish processing	6
Bakeries	1
Soft drinks	1
ISIC 32 Textiles, clothing and leather	2
Clothing	1
Carpets	1
ISIC 33 Wood and wood products	2
Furniture	2
ISIC 34 Paper and printing	2
Printing	2
ISIC 35 Chemicals and plastic products	5
Dyes	1
Detergents and sanitary products	1
Soap	1
Plastic tubes	1
Synthetic foam	1
ISIC 36 Non-metallic minerals	1
Ceramic tiles	1
ISIC 38 Metallic products and machinery	1
Nails and wire	1
ISIC 39 Other manufacturing industries	1
Matches	1

Source: Ministry of Industry and Mines.

Table A-2: Size of industrial and handicraft enterprises by number of employees, 1980

Category (employees per enterprise)	No. of enterprises	Number of employees per enterprise	
		Total	Mean
1	2,699	2,699	1
2 to 5	389	973	2.5
6 to 20	57	582	10.2
Greater than 20	24	1,800	75.0
Total	3,169	6,054	1.9

Source: Ministry of Industry and Mines.

Table A-3: Geographic distribution of industrial enterprises by size, 1980

Size of enterprise by number of employees	Number of enterprises			Total
	Nouakchott	Nouahdibou	Other	
1	683	142	1,874	2,699
2-5	248	24	117	389
6-20	35	16	6	57
Greater than 20	15	7	2	24

Source: Ministry of Industry and Mines.

Table A-4: Planned public investments in the industrial sector
in the Third Development Plan, 1976-1980
(\$ million)

Project	Investment \$ million
Copper refinery	185.0
Pellet plant	225.0
Oil refinery	70.0
Spinning and weaving mill (in Rosso)	30.0
Sugar refinery	18.0
Electric iron furnace	15.0
Clinker grinding plant	5.0
Total	548.0

Source: World Bank, Islamic Republic of Mauritania: Recent Economic Developments and External Capital Requirements, 1979, p. 8.

Table A-5: Urban and rural distribution of population, 1964-1987

	1964		1976		1987	
	Persons '000	Per Cent	Persons '000	Per Cent	Persons '000	Per Cent
Urban	100	8.3	308	21.7	625	34.1
Nouakchott	17	1.4	135	9.5	285	15.5
Other	83	6.9	173	12.1	340	18.5
Rural	997	83.2	1,111	78.2	1,204	65.8
Sedentary	439	36.6	615	43.3	779	42.5
Nomadic	558	46.6	496	34.9	425	23.2
Total	1,197	100.0	1,419	100.0	1,829	100.0

Source: Statistisches Bundesamt Wiesbaden, Statistik des Auslandes, Mauretanien, 1987.

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

Islamic Republic of MAURITANIA

(1)
since 1972

<u>Backstopping Responsibility</u>	<u>Spec.Act./ All.Acc.Code</u>	<u>Project Number</u>	<u>Project Title</u>
IO/IIS/INFR	31.3.N	DP/MAU/80/001	Création d'un centre national d'information industrielle
IO/IIS/INFR	31.3.N	TF/MAU/77/002	Creation of an industrial information service to SNIM
IO/IIS/INFR	31.3.L	DP/MAU/77/003	Establishment of a study and industrial promotion unit
IO/IIS/IMR	31.4.B	SI/MAU/79/802	Assistance à la Société Nationale de Confection (SONACO)
IO/IIS/IMR	31.4.C	TF/MAU/77/001	Seminar on the management of industrial enterprises
IO/IIS/IMR	J12206	UC/MAU/83/073	Assistance in the reorganization of the Ministry of Commerce and Industry
IO/IIS/PLAN	32.1.00	IS/MAU/71/804	Assistance to programming industrial development
IO/IIS/PLAN	31.2.A	RP/MAU/84/001	Séminaire national sur la DDIA (see RP/MAU/85/601) (IDDA)
IO/IIS/PLAN	31.2.A	RP/MAU/85/601	Séminaire national sur la DDIA Mauritania (IDDA)
IO/IIS/PLAN	31.2.D	IS/MAU/74/011	Industrial diagnosis
IO/IIS/PLAN	31.2.D	SI/MAU/74/811	Industrial diagnosis
IO/T/AGRO	30.6.01	VS/MAU/74/075	Establishment of a small-size garment pilot and demonstration plant
IO/T/AGRO	31.7.B	IS/MAU/74/006	Textile industry
IO/T/MET	31.8.A	DP/MAU/79/005	Etude sur l'exploitation industrielle des sables noirs
IO/T/MET	31.8.A	UC/MAU/78/292	Study on the industrialization of black sands (multifund to UD/MAU/78/292)
IO/T/MET	31.8.A	UD/MAU/78/292	Study on the industrialization of black sands (multifund to UC/MAU/78/292)
IO/T/MET	31.8.A	VC/MAU/77/046	Study on the industrialization of black sands
IO/T/MET	J13207	SM/MAU/80/009	Etude de faisabilité sur l'extraction de l'or et de l'argent contenus dans les résidus miniers d'Akjoujt (continued under DP/MAU/85/005)
IO/T/MET	J13207	DP/MAU/85/005	Etude de faisabilité sur l'extraction de l'or dans les résidus miniers d'Akjoujt (phase II) (continuation of SM/MAU/80/009)
IO/T/MET	00.0	IS/MAU/71/805	Iron and steel engineer
IO/T/MET	30.2.02	IS/MAU/71/806	Pre-feasibility study of copper smelting and fabrication
IO/T/MET	30.2.00	TS/MAU/74/001	Exploratory mission on evaluation of heavy mineral sands deposits

Annex B (continued)

Islamic Republic of MAURITANIA

(2)
since 1972

<u>Backstopping Responsibility</u>	<u>Spec.Act./ All.Acc.Code</u>	<u>Project Number</u>	<u>Project Title</u>
IO/T/CHEM	32.1.B	DP/MAU/80/003	Assistance au développement des industries de matériaux de construction à base de constituants minéraux
IO/T/CHEM	32.1.B	IS/MAU/75/008	Gypsum fabrication and fabrication of pre-fabricated elements made of gypsum
IO/T/CHEM	32.1.B	SI/MAU/75/808	Gypsum fabrication and fabrication of pre-fabricated elements made of gypsum
IO/T/CHEM	32.1.B	SI/MAU/79/801	Fabrication des briques en terre cuite
IO/SD/FEAS	31.6.A	DP/MAU/79/007	Étude de faisabilité de projets industriels
IO/SD/TRNG	31.5.B	RP/MAU/82/001	Evaluation of industrial projects
PPD/SPA/ECDC	30.9.Z	UC/MAU/81/030	Round-table ministerial meeting of selected Arab countries for co-operation in the industrial development of Mauritania
IPCT/II	31.1.B	UC/MAU/81/074	Investment promotion tour for Mauritania
EPL/REL/GOV	70.3.Z	RP/MAU/80/001	Consultation avec le Minstre de l'Industrie, de Mines et le Directeur de l'Industrie

II. The operational and/or approved projects

Islamic Republic of MAURITANIA

<u>Project Number</u>	<u>Backstopping Responsibility</u>	<u>All.Acc.Code</u>	<u>Project Title</u>
DP/MAU/87/007*	IO/IIS/INFR	J12103	Développement du secteur privé

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

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