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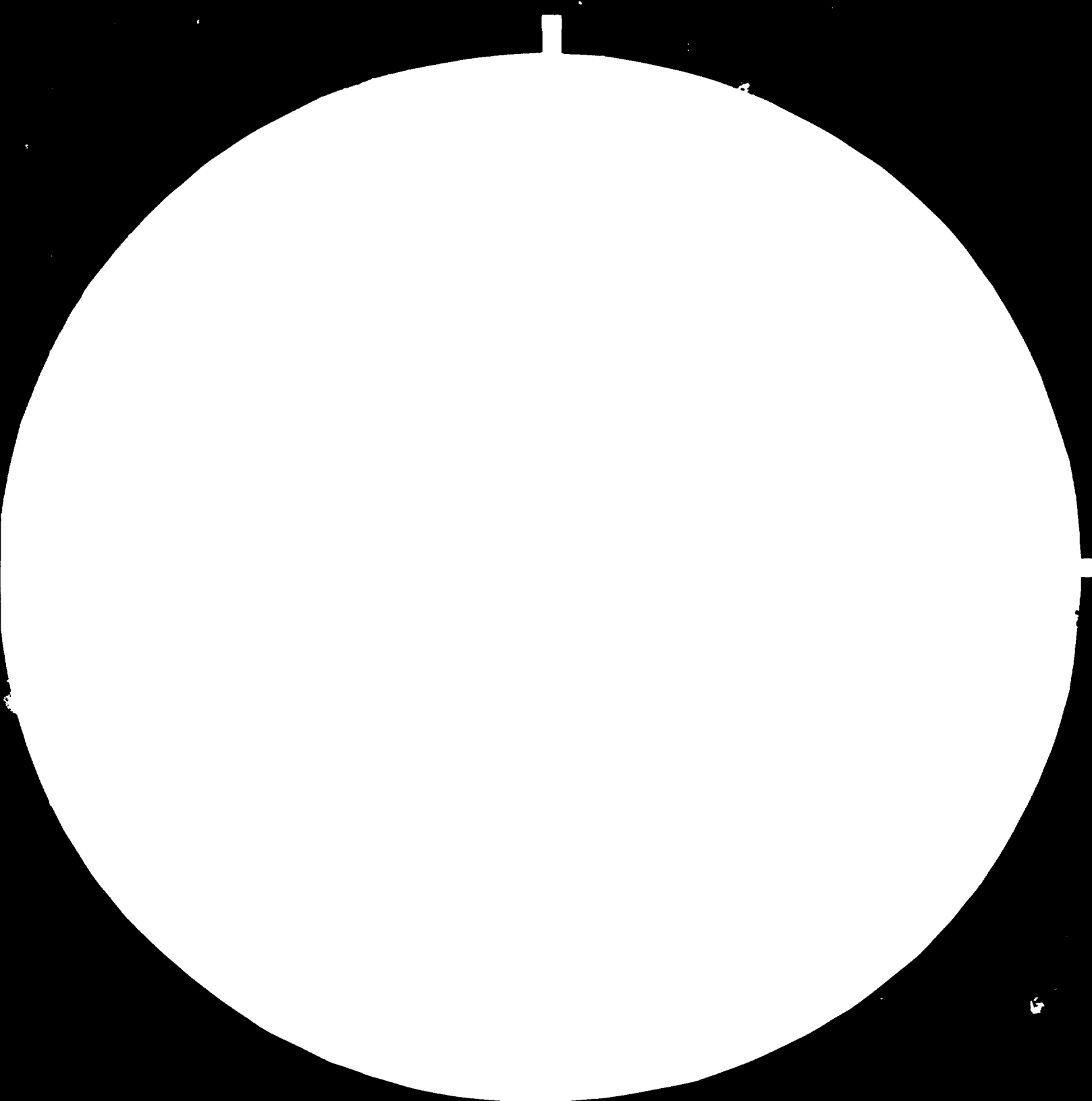

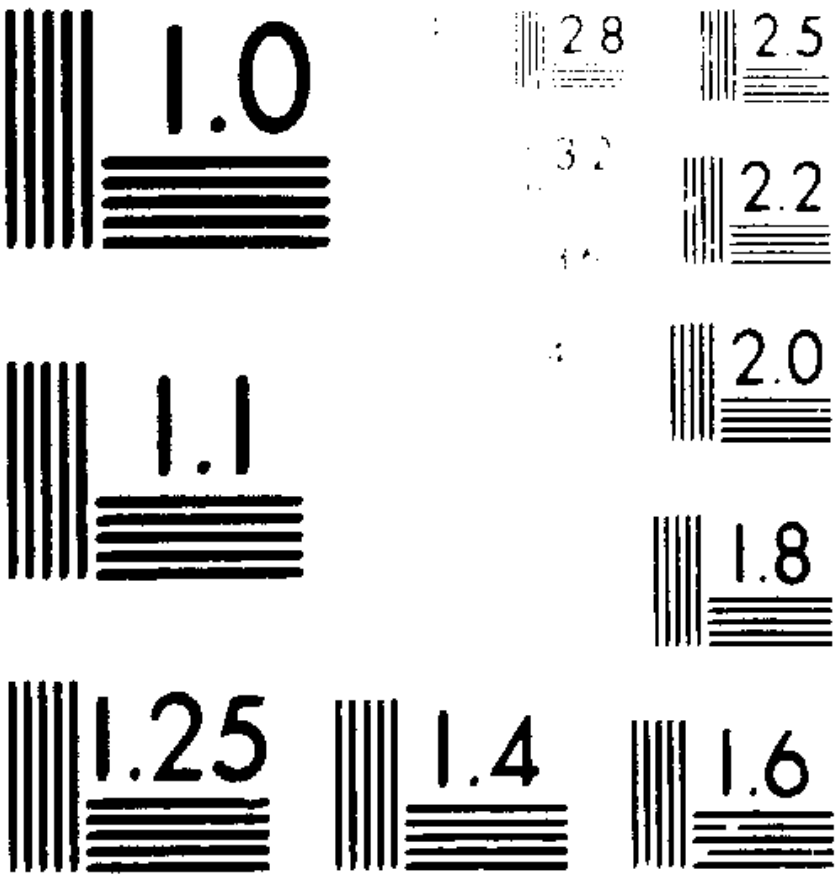
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Industrial Development and Prospects of Somalia.

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Regional and Country Studies Branch

Division for Industrial Studies

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CHAPTER I

Macroeconomic Indicators: An Overview of the Economy

1. The Somali Democratic Republic is one of the Least Developed Countries of Africa which is suffering deep economic and social difficulties. It falls in the same latitude of Subsahra Sahel region and it is a segment of great arid swathe of the African continent.

2. Somalia is situated in the North of Africa, placed geopolitically between the Arabian peninsula on one hand and the African continent on the other. Towards the North and East, it faces the Gulf of Aden and the Indian Ocean. In the West and South, it borders on Djibouti, Ethiopia and Kenya. It has three thousand kilometers of Coastline, one of the longest in Africa, bordering on the Gulf of Aden in the north and the Indian Ocean in the east.

3. The varied topography of the country ranges from a hot and arid coastal plain to sparsely wooded savannah, rugged mountains, agricultural plateaux and lowlands of varying fertility and rainfalls. Rainfall is not only low but also irregular, so that the risk of periodic droughts is ever present bringing, when they occur, great hardships to people and livestock.

4. Climatically, Somalia may be devided into three regions: The Northern and North Western highlands, where the average rainfall exceeds 400mm per annum in certain areas; these areas enjoy cool winters and a semi-Mediterranean type of climate. The central region of the country and the northern sea coast where it is mainly hot and arid, and the annual average rainfall of the area range from 50 to 150 mm. Then the South which is relatively higher, and has an equatorial type of climate.

5. There are only two rivers, Juba and Shabella, both in the South and originating in Ethiopia, where rains are abundent. There are some other streams, but there are seasonal. The two main rivers of Somalia provide most of the country's usable surface water. It is this inter-riverine area

.../..

which has the heaviest rainfall but even here, on the average, it is less than 600 mm annually. Over much of the country, there are two main rainy seasons. The heaviest rain falls in the "GU" season (April to June), while the intermittent rain comes in the "DER" season (October to December).

6. Somalia has an area of 638,600 square kilometres. It is estimated that about 13 per cent of the country is potentially cultivable, and 45 per cent is considered suitable for grazing; most of Somalia is between arid and semi-arid. Good quality groundwater resources are limited and unevenly distributed throughout the country. Somalia has the longest coastline of any country in Africa and proven fishery resources are large. For lack of physical and social infrastructure, only a small proportion of the arable land is currently used for growing crops. Most agricultural activities are concentrated in the inter-riverine area, where irrigation is possible. The country has a large livestock population of about 5 million camels, 4 million heads of cattle and 25 million sheep and goats. However, under the present husbandry practives, the country's grazing resources are degenerating rapidly.

7. Population estimates for Somalia are very approximate. Owing to the predominance of nomadism, a way of life which necessitates movement inside and outside Somalia in search of water and better grazing land, it has been found impossible to take a full census. According to preliminary results of the 1975 census, Somalia had in that year a population of 3,7 million people. About 60% of the population are nomads and semi-nomads who depend on livestock for their livelihood and about 20 - 25 per cent are farmers cultivating land along the Juba and Shabella rivers and in the higher rainfall areas, mainly in the north-west, and the remaining 15 - 20 per cent are engaged in non-agricultural occupations. The population is estimated to have grown at a

rate at between 2.5 and 3 percent a year; this rate of growth would give Somalia a population of 5 million in 1980 (approx.) 1/ .

Table 1 below shows the population of Somalia by region, divided into nomads, settled in farming,and non-agricultural population in 1975.

8. The country has the unique problem of sustained inflow of refugees, displaced by war with Ethiopia, and by the extremity of drought. The current estimates of refugees in Somalia are 1.25 million living in refugee campas and about 800.000 spread all over the country, the provision of a basic minimum needs of this economically inactive population is a growing economic burden on the Somali economy.

9. The population of Somalia can be further classified as:
a) Nomads. b) Semi-nomads. c) settled: i. Rural
ii. Urban
and in 1980 the population of the country comprised of 2.8 million nomadic population, 1.1 million of settled rural population and 1.1 million urban population. The density of the population as per 1975 estimate was 5.2 persons pe: square kilometre and illiteracy rate was estimated as 30 percent.

10. The main feature of the age structure of Somalia's population, as in many other developing countries, is the predominance of persons under 15 years of age. They constitute 45 percent of the total population in Somalia, as against 25 percent in many industrialized developed countries. With a dependency ratio of 1.89, the burden on the conomically active population is relatively heavy and this must have adverse implications for Somali efforts to mobilize its limited resources for its development.

1/ Country review meetings, UNCLDS, (Western and Central Africa, 25 May to 5 June 1981) Country presentation of Somalia.

Table 1 SOMALIA: NOMADIC, SETTLED FARMING AND NON-AGRICULTURAL POPULATION BY REGION, 1975
(Thousands)

	Total		Nomadic		Settled Farming		Non-Agricultural	
	No.	%	No.	%	No.	%	No.	%
North-West	698	18.7	469	12.6	160	4.3	69	1.9
W. Galbeed	440	11.8	271	7.3	118	3.2	51	1.4
Togdheer	258	6.9	198	5.3	42	1.1	18	0.5
North-East	386	10.4	295	7.9	64	1.7	27	0.7
Sanaag	145	3.9	113	3.0	22	0.6	10	0.3
Bari	154	4.2	116	3.1	27	0.7	11	0.3
Nugal	87	2.3	66	1.8	15	0.4	6	0.1
Central	397	10.7	289	7.8	76	2.0	32	0.8
Mudug	215	5.8	170	4.6	32	0.8	13	0.3
Galguduud	182	4.9	119	3.2	44	1.2	19	0.5
Shebelli River	1188	31.9	475	12.8	233	6.3	480	12.9
Hiran	147	3.9	116	3.1	22	0.6	9	0.2
Middle Shebelli	263	7.1	166	4.5	68	1.8	29	0.8
Lower Shebelli	398	10.7	193	5.2	143	3.9	62	1.7
Mogadishu	380	10.2	-	-	-	-	380	10.2
Juba River	651	17.5	477	12.8	122	3.3	52	1.4
Gedo	212	5.7	181	4.8	22	0.6	9	0.3
Middle Juba	216	5.8	141	3.8	52	1.4	23	0.6
Lower Juba	223	6.0	155	4.2	48	1.3	20	0.5
Inter-Riverine	402	10.8	179	4.8	156	4.2	67	1.8
Bakool	100	2.7	79	2.1	15	0.4	6	0.2
Bay	302	8.1	100	2.7	141	3.8	61	1.6
TOTAL	3722	100.0	2184	58.7	811	21.8	727	19.5

Source: Ministry of Planning, Three-Year Plan, 1979-81

Note: The figures for population given in this table are rough and tentative. According to the Three-Year Plan (1979-81), the number of people is not known precisely as the census was taken in 1975 at the height of the worst drought ever recorded. Many of the people, especially the nomads were moving in search of food and water and accurate enumeration obviously could not be obtained under such circumstances. Even at this stage, full details of census data remain unpublished.

11. With the advent of drought the country witnessed a rapid growth of urbanisation. The growth rate of urban migration is estimated at 6 percent per annum and it is estimated that by 1985 urban population of Somalia will be 30 percent of total population accompanied by the demand for large urban housing and social service facilities.
The major towns are: Mogadicio, the capital with about half million people, Hergeisa; Chrisimaio; Berbera; and Merca.

12. The rural-urban scene is characterised by predominance of large number of small villages and temporary nomadic settlements. The exact number of villages in 14 districts of Somalia is not known and patterns of urbanisation are seen near coastal, port towns and industrial centers of southern and norther Somalia. The distribution of population area shows that there is large concentration of 60 percent in southern area followed by 29 percent in northern area and 11 percent in central area.

13. The country has a high infant mortality rate of 177 per thousand compared to 150 per thousand for Africa and 21 per thousand in Europe. The average life expectancy is 41 compared to 47 for the whole of Africa. It is also noticed that 45 to 47 percent of Somalia's population consists of the age group below 15 years.

Gross Domestic Product (GDP)

14. Until very recently, it was hardly possible to say anything meaningful about the growth of the economy, or even the level of income. Recently, however, the first results of the 1975 Population and Livestock Census became available. Also, the Statistics Department in the Ministry of National Planning, with techincal assistance from the United Nations Economic Commission for Africa and the World Bank, made some progress with the compilation of national accounts statistics for the period 1972-78. Considerable work remains to be done in reconciling aggregate production and

expenditure estimates. Although the quality of statistics needs to be improved, it is felt that these first, tentative aggregate production statistics are roughly representative of growth trends and level of income.

15. As for gross domestic product (GDP) in 1977 - estimated at $US 341.6 million (factor prices), 27 percent (of expenditure on GDP) was accounted for by Government consumptions, 69 percent by private consumption and 21 percent by gross capital formation.1/

16. According to the estimated total GNP was about So. Sh. 7,500 million in 1978, which would give Somalia a GNP per capita of about $295 in 1978 at the official exchange rate of 6.3 shillings to the US dollar. The shilling, however, was substantially over-valued and it seems appropriate to use a more realistic exchange rate of 10 shillings to the dollar, which would give a per capita income of about $185 in 1978. This figure is still much higher than previous estimates, (the World Bank Atlas gives $130 for 1978). Table 2 gives tentative estimates of GDP at factor cost in the main sectors of the economy and their respective growth rates in real terms.

1/ "Transfer and Development of Technology in Somalia", Report by an UNCTAD mission, United Nations 1980.

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Table 2: Estimates of GDP at factor cost, 1972 and 1978
(at 1978 constant prices)

	1972	1978	% of total in 1978	Average annual growth rate
	(So.Sh.million)		%	%
Productive Sectors	4,405	4,675	72.0	+1.0
Agricultural sector of which:	3,775	4,060	62.5	+1.2
Livestock	(2,820)	(3,265)	(50.3)	+2.5
Crops	(670)	(490)	(7.5)	-5.0
Other	(285)	(305)	(4.7)	+1.0
Industrial sectors	630	615	9.5	-0.5
Services sectors	1,255	1,820	28.0	+6.5
Government services	350	570	8.8	+8.5
Other services	905	1,250	19.2	+5.5
Total GDP at factor cost	5,660	6,495	100.0	+2.5

Source: - Ministry of National Planning, "National Accounts Estimates, 1970-78" (Mimeo.), December, 1979.
- World Bank, "Somalia: National Income Accounts," (Mimeo.), April, 1980.

17. The composition of GDP shows that the country is largely composed of pastoral society, with some sedementary agriculture and very limited modern industrial development. About half of GDP is generated in the livestock sector, crop cultivation contributes 7 to 8 percent of GDP, whereas the contribution of the industrial sectors, including manufacturing, construction and public utilities, is less than 10 percent.

Between 1972 and 1978, total GDP in real terms probably increased at an average annual rate of 2.5 percent, about the same as that of the population. However, with a growth rate of only one percent a year, the productive sectors of the economy have grown considerably slower than the services sectors. The high growth of government services (8.5 percent per annum) particularly reflects, to a large extent, the increase of Government employment.

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Value added

18. Table 3 shows value added by economic sectors for the years 1969 to 1978, while table 4 shows the percentage share of each sector in the GDP. Services have been contributing over 40 percent to the GDP since 1969; their share rose to 45.90 percent in 1978, thereby making them the largest sector. Second to services is agriculture. Its share has been declining over these years from 38.66 in 1969 to 31.71 percent in 1978. This decline can partly be explained by severe droughts in the 1970s and the adverse effects of the war against Ethiopia. The share of manufacturing grew from 6.57 percent in 1969 to 9.32 percent in 1978.

Domestic market

19. The total population of the country amounting to some 3.7 million persons in 1975 and 5 million (estimate by Somali Authorities) in 1980 constitute a relatively small group of local consumers. Other factors which tend to reduce the size of the domestic market are:

- the large number of nomads (58.7 percent) who make up the subsitance sector of the economy.
- the very low gross national product per capita of US $295 (estimate by the World Bank in 1978 when the rate of exchange was US$1 = So.Sh. 6.3)
- salaries and wages are very low.
- the uncertainties of incomes arising from adverse effects of the vagaries weather on crop and livestock production;
- being at the initial stage of development, the monetized sector of the economy is so small that only very few import substitution industries are economically feasible.

20. Thus the purchasing power in Somalia is so low that it constitutes one of the constraints on industrialization and economic development of the country. The limitation of the small size of the domestic market to industrialization points to the necessity of identifying and promoting

.../..

Table 3. Value added by economic sector, 1969 to 1978

(in millions of US dollars at constant 1975 prices)

Year	Agriculture	Mining and quarrying	Manufacturing	Utilities	Construction	Services	GDP	Population (in millions)
1969	140.8	23.7	23.9	2.9	18.7	154.1	364.2	2.73
1970	149.7	25.9	29.4	2.9	18.7	162.0	388.7	2.79
1971	154.3	26.3	35.8	5.9	24.4	171.5	418.2	2.86
1972	153.8	27.1	40.1	6.2	25.0	194.3	446.5	2.93
1973	154.0	29.0	44.3	6.8	26.6	207.1	467.8	3.01
1974	154.7	25.1	44.5	7.4	28.1	216.7	476.5	3.09
1975	158.5	26.4	47.1	8.0	29.9	222.6	492.5	3.17
1976	165.1	27.5	48.3	8.3	31.0	229.6	509.9	3.26
1977	170.7	28.8	50.6	8.7	31.9	238.9	529.7	3.35
1978	169.8	28.1	49.9	8.6	33.3	245.8	535.4	3.44

Source: Data Base, Regional and Country Studies Branch, UNIDO.

Table 4. Shares of economic sector value added in GDP 1969 to 1978

(Percentage)

Year	Agriculture	Mining and quarrying	Manufacturing	Utilities	Construction	Services
1969	38.66	6.50	6.57	0.80	5.15	42.32
1970	38.53	6.66	7.57	0.75	4.80	41.69
1971	36.90	6.29	8.57	1.40	5.84	41.00
1972	34.45	6.08	8.97	1.38	5.60	43.52
1973	32.91	6.20	9.48	1.46	5.69	44.27
1974	32.46	5.28	9.35	1.56	5.89	45.47
1975	32.19	5.35	9.56	1.63	6.07	45.21
1976	32.39	5.39	9.48	1.63	6.08	45.03
1977	32.23	5.44	9.56	1.64	6.02	45.11
1978	31.71	5.25	9.32	1.60	6.22	45.90

Source: UNIDO data base, Regional and Country Studies Branch.

such small scale industries as would thrive on the support of a small market such as Somalia's. Otherwise, potentials for establishing relatively large scale industries will require promotion and maintenance of export markets.

21. The distribution of finished goods, raw materials and other inputs is severely constrained by the rudimentary transportation system which exists and the critical shortage of commercial motor vehicles, spare parts and components and petrol and oil.

22. It is also worth mentioning that the introduction of franco-valuta system in imports led to the increase in the prices of imported goods and therefore caused inflationary pressures and dislocations in the local price structure; it had therefore to be withdrawn. The government has been persuing price control policy; purchasing and selling prices were uniform and at the same levels for the whole country, without taking into account transport costs and other overheads. This caused losses to some organizations. Consequently, private industrialists resorted to blackmarket prices.

23. Broadly, trade in the domestic market is divided in such a way that wholesale trade is in the hands of the public sector while retail trade is undertaken by the private sector. According to the Manpower Survey of 1978, there were 16,825 retailers and 121 wholesale traders. Mogadiscio, the capital and largest commercial centre, had 54 wholesale traders and 7,563 retailers.

Exports and imports

24. Somalia imports a relatively wide range of capital, intermediate and consumer goods. Table 5 below shows total imports by value for the years 1973 to 1978. There have been three phenomena which have had adverse effect on Somalia's trade, namely: the droughts of 1973-74 and 1979-80, international monetary and energy crises, and the hostilities with Ethiopia which resulted in a large influx of refugees.

.../..

Table 5. SOMALIA: IMPORTS BY COMMODITIES, 1973-78

(So.Sh. Million)

	1973	1974	1975	1976	1977	1978
Consumer goods	300.7	352.9	349.0	361.4	487.1	588.7
Food	134.0	175.7	235.0	221.2	305.6	250.5
Cereals and cereal products	(57.5)	(71.5)	(161.0)	(134.1)	(191.4)	(31.1)
Fruits and vegetables	(12.3)	(13.2)	(18.8)	(5.0)	(6.3)	(7.9)
Sugar and sugar products	(42.3)	(61.5)	(4.4)	(1.4)	(1.6)	(78.4)
Dairy products	(1.2)	(1.5)	(7.4)	(12.5)	(23.9)	(66.3)
Coffee, tea, and cocoa	(11.0)	(13.9)	(12.3)	(22.4)	(20.7)	(32.4)
Oil seeds, etc.	(0.1)	(-)	(0.1)	(1.5)	(5.2)	(-)
Animal and vegetable oils	(7.9)	(12.8)	(29.5)	(41.4)	(51.4)	(32.0)
Other food	(1.7)	(1.3)	(1.5)	(2.9)	(5.1)	(2.4)
Beverages and tobacco	19.8	7.3	18.4	22.9	19.9	64.2
Medicinal and pharm. products	37.2	24.2	25.3	27.9	47.5	20.0
Personal and household toiletries	9.1	6.5	1.2	1.0	2.0	4.4
Textile articles	56.5	95.2	29.4	33.9	52.0	68.2
Clothing and footwear	21.5	20.2	7.8	11.4	24.7	54.3
Other manufactured goods	22.6	23.8	31.9	43.1	35.4	127.1
Mineral fuels	28.8	60.3	60.0	67.0	62.5	100.8
Petroleum and petroleum products	28.6	60.1	59.4	66.5	61.4	100.5
Other	0.2	0.2	0.6	0.5	1.1	0.3
Intermediate goods	165.6	288.9	253.6	269.3	359.0	347.7
Fertilizers, mfd.	5.4	3.1	5.9	0.1	3.9	-
Other chemicals	25.6	33.7	27.6	38.0	9.1	49.6
Rubber products	8.6	16.0	15.9	22.5	43.4	21.4
Paper and paper products	36.4	49.2	45.5	27.1	51.7	16.2
Wood, lumber, cork and products	10.8	24.5	13.5	17.3	20.5	9.9
Cement and building materials	10.3	29.9	46.1	34.9	55.5	42.1
Iron and steel	18.3	68.2	22.9	29.1	53.3	26.3
Metal and mineral manufactures	30.1	36.9	37.0	42.8	43.1	121.1
Other	20.1	27.4	39.2	57.5	88.5	61.1
Capital goods	180.4	193.8	308.7	276.0	510.2	470.8
Non-electrical machinery	69.6	88.1	152.1	93.9	196.7	112.7
Electrical machinery	26.3	37.8	36.2	31.9	118.5	59.8
Transportation equipment	84.5	67.9	120.4	150.2	195.0	298.3
Other	1.9	2.5	2.4	4.3	14.0	10.9
Total imports, c.i.f.	677.4	898.4	973.7	978.0	1432.8	1518.9

Note: Excludes franco valuta imports.

Source: Ministry of Planning, Central Statistical Department, Foreign Trade Returns and Statistical Abstract.

IBRD Report No.2384-50 of 16 March, 1981

Imports rose significantly from So.Sh.677.4 million in 1973 to So.Sh. 1518.9 million in 1978. For the next three years, it rose to So.Sh. 1,804.6 in 1979 and then it fell slightly to So.Sh. 1,734.1 in 1980 and So.Sh. 1,253.1 in 1981. (Source: IMF International Financial Statistics). Mineral fuels imports which stood at So.Sh. 28.8 million in 1973 sharply rose to So.Shs. 100.8 million in 1978. After rising from So.Shs. 180.4 million to So.Shs. 510 million in 1977, capital goods imports dropped to So.Shs. 470.8 million in 1978. The value of imports of intermediate goods also slightly decreased from So.Sh. 359.0 million in 1977 to So.Shs. 347.7 in 1978. On the other hand, the value of imports of consumer goods increased from So.Shs. 300.7 million in 1973 to So.Shs. 588.7 million in 1978.

25. In volume terms, however, export developments have been most unfavorable (Table 6). Although livestock production recovered from the effects of the drought in 1974, recorded exports of live animals in 1978 had not yet reached pre-drought levels. Domestic consumption appears to have increased faster than production. The sharp drop in other exports was mainly due to the fall in banana production and the cessation of exports of canned meat to the USSR. Exports have now become extremely vulnerable. Of total merchandise exports in 1978 of $109 million, 83 percent consisted of live animals, and 90 percent of this was exported to just one country, Saudi Arabia.

Table 6. Volume Indices of Exports, 1972-1978

	1972	1974	1977	1978
Live Animals	100	71	66	91
Other Exports	100	77	39	37
Total Exports	100	73	56	71

Source: IBRD Mission Estimates based on Somali statistics of Foreign Trade Returns.

.../..

26. Exports are made up of very few commodities. Table 7 gives information on Somalia's exports by value and in percentages for the years 1973 to 1978. The value of total exports increased from So.Shs. 340.4 million 1973 to So.Shs. 671.0 million in 1978. For the next three years, the value of total exports rose subsequently to be So.Sh. 697.8 in 1979, So.Sh 887.8 in 1980 and So.Sh 1,257.8 in 1981.

(Source: IMF international Financial Statistics).

Live animals contributed 57.8 percent and 87.1 percent in 1973 and 1978, respectively. Livestock is therefore the largest earner of foreign exchanges, followed by banana export which constituted 19.8 percent of total exports earnings in 1973; but earning from banana exports have been declining every year until 1978 when they were So.Shs. 54.1 million or 8.1 percent of total export earnings.

27. As to the years 1979 and 1980 the main commodities exported were as follows:

	So.Sh.	
Exports	1979	1980
Live animals	499.0	710.8
Bananas	73.2	49.1
Hides and Skins	59.4	20.8

(Source: IMF International Financial Statistis; Somalia Monthly Statistical Bulletin; UN Yearbook of International Trade Statistics).

28. Table (8) shows trend of Foreign Trade for the years 1976-1981. The improvement in the trade balance shown for 1981 seems likely to be due partly to food aid on imports, and partly to the effect of the new dual exchange rate on exports. 1/

1/ EIU, Annual supplement 1982.

.../..

Table 7. SOMALIA: EXPORTS BY COMMODITIES, 1973-78

(So.Sh. Million)

	1973	Percent	1974	Percent	1975	Percent	1976	Percent	1977	Percent	1978	Percent
Bananas	67.6	19.8	79.8	20.4	64.3	11.5	178.7	30.0	54.6	13.9	54.1	8.1
Live animals	196.7	57.8	222.4	56.9	382.0	68.5	281.2	47.2	279.5	70.5	588.7	87.1
Meat and meat products	22.6	6.6	35.8	9.2	44.1	7.9	43.0	7.2	13.3	3.4	0.3	0.1
Hides and skins	13.1	3.9	14.1	3.6	26.3	4.7	51.0	8.6	9.5	2.4	12.0	1.8
Fish and fish products	13.5	4.0	15.2	3.9	11.6	2.1	15.6	2.6	9.4	2.4	2.6	0.4
Other	26.9	7.9	23.3	6.0	29.2	5.3	26.0	4.4	30.2	7.4	13.3	1.9
Total	340.4	100.0	390.6	100.0	557.5	100.0	595.5	100.0	396.5	100.0	671.0	100.0

Note:

(a) Export values as assessed by customs do not always reflect current market prices; rather they serve as benchmark values for purposes of levying export tax and statistical and service duty.

(b) Export values as assessed by customs differ from export receipts as reported by the Central Bank due to differences in coverage, timing and valuation.

Source: Ministry of Planning, Central Statistical Department, Foreign Trade Returns.
IBRD Report No. 23 September-So. of March 16, 1981.

Table 8. Foreign Trade and Payments

Trend of Foreign Trade

(So.Sh)

	1976	1977	1978	1979	1980	1981
Exports	594.8	396.5	670.8	697.8	887.8	1,257.8
Imports, cif	979.8	1,432.8	1,519.0	1,804.6	1,734.1	1,253.1
Balance	-385.0	-1,036.3	-848.2	-1,106.8	-846.3	4.7

Source: IMF International Financial Statistics.

29. Table (9) shows the country's main trading partners for 1978 and 1989. Furthermore, it is worth noticed that Somalia is an associated territory of the EEC. It receives a preference of 12 percent on Bananas in the EEC, but faces considerable competition from the Ivory Coast. The authorities are giving priority to improving the competitveness of Somalia's Banana exports and to finding new markets.

Table 9. Main Trading Partners

(percent of total value)

Exports	1978	1979	Imports	1978	1979
Saudi Arabia	38.5	76.9	Japan	0.7	0.7
Italy	14.9	14.6	Italy	29.8	33.8
Kuwait	-	0.1	China	0.2	2.0
South Yemen	2.5	0.2	USSR	1.3	0.4
U K	0.5	0.1	Thailand	0.9	4.1
USSR	9.6	-	USA	6.5	8.1
			U K	12.2	11.1
			Kuwait	2.1	0.1
			India	7.8	1.1
			West Germany	6.3	4.8
			Iraq	4.7	4.2

Source: IMF Direction of Trade.

.../..

Balance of Payments

30. Table (10) gives the overall balance of payments position up to 1980. According to the assessment of the Somali official sources, the overall balance has improved substantially between 1979 and 1980. 1/ The final overall balance of payments deficit is actually estimated to be closer to So.Sh. 330 million for 1980. The current stablisation programme 2/ has therefore had a beneficial effect and needs to be re-inforced further to improve the position in 1981. Nevertheless, this improvement has to be seen in the perspective of three factors:-

1. As pointed out earlier export receipts are almost entirely dependent on livestock and bananas. These two commodities are highly vulnerable both to internal drough conditions and international market

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1/ UNCLDC, Country Review meetings, Country presentation, Somalia, UN 1980.

2/ Stabilisation Programme

The Government has formulated a one-year program to deal with the current economic and financial imbalance. The program aimed at moderating both the external imbalance and prospective current rate of domestic inflation in 1980, while maintaining gross-official reserves equivalent to about three months' imports. To this end, wide-ranging policy measures have been adopted to restrain both public and private demand, raise output of domestically produced food crops, increase export receipts, and curtail the food imports bill. With these measures, the program aimed at restraining the prospective overall balance of payments deficit for 1980 to So.Sh. 130 million. In light of the existing parallel market for foreign exchange, it is also intended to pursue an active exchange rate policy in order to provide adequate incentives for exports and import substitutes, to shift external transactions from the parallel market to offcial channels, and to increase government revenue derived from external transactions. In the context of the program, action has been taken with respect to: (i) the budget, (ii) producer prices of locally consumed crops, bananas and cotton, (iii) interest rates (iv) import control and export promotion policies.

.../..

Table 10. Balance of Payments (Million So.Sh.)

		1975	1976	1977	1978	1979	1980 (est.)
I.	GOODS AND SERVICES	-643.7	-692.6	-685.7	-1,073.2	-1,886.6	-1,471.0
	Export f.o.b	557.6	510.2	449.0	689.1	667.4	770.0
	Import c.i.f	1,021.2	1,107.7	1,105.7	1,732.3	-2,480.8	2,191.0
	- Franco Valuta Import	-	-	(- 73.6)	(-477.4)	(-217.4)	-
	- Project Aid	(-172.8)	(-337.1)	(-332.8)	(-393.4)	(-325.9)	-
	Trade Balance	-463.6	-597.5	-656.7	-1,043.2	-1,813.4	-1,421.0
	Services (Net)	-180.1	- 95.1	- 29.0	- 30.0	- 73.2	- 50.0
II.	TRANSFERS (NET)	175.0	256.8	679.8	666.4	591.6	791.0
	Government	163.1	250.0	666.2	175.0	365.6	430.0
	Private	11.9	6.8	13.6	491.4 1/	226.0 2/	361.0
III.	CURRENT ACCOUNT BALANCE	-468.7	-435.8	- 5.9	-406.8	-1,295.0	-
IV.	CAPITAL MOVEMENT (NET)	327.9	539.3	142.9	413.2	640.0	310.0
	Private	58.7	21.9	58.0	1.9	24.4	10.0 2/
	Official	269.2	424.4	194.6	494.6	527.1	300.0 2/
	Commercial Bank	456.6	93.0	-109.7	- 32.8	88.5	
V.	OVERALL BALANCE	321.5	103.5	178.0	51.2	-531.6	-370.0

SOURCE: Central Bank of Somalia

1/ Included Franco Valuta
2/ Not included project aid capital inflow in kind

fluctuations. Therefore a deterioration of the situation in either areas causes export receipts to fluctuate and makes the overall balance of payments highly vulnerable to sudeen deterioration;

2. Given the presently high level of world inflation and in particular escalating oil prices, the future import bill is likely to increase just on this account;

3. The overall reserve position has deteriorated from So.Sh. +78 million in December 1979 to So.Sh. -70 million in December 1980. In the short term given this extremely weak position, as stated in the stablisation programme above, substantial foreign exchange resources will be required to tide over.

31. The present difficulties. The government has negotiated a stand-by arrangement of approximately So.Sh. 94 million with the International Monetary Fund for the current period. However, if the current import requirements both of essential commodities and essential imports for the developmental project and programmes are to be met additional balance of payments assistance is urgently required. If this is not forthcoming there will be a worsening of the presently difficult supply position relating to essential goods and services; and the long term developmental effort, which is the basis for a permanent change in the structure of imports and exports and an improved balance of payments, will also be negatively affected.

External debt

32. Table (11) gives information on Somali's external debt situation up to 31 December 1979. The total public debt disbursed was about US $546 million at the end of 1979, while US $360 million (excluding undisbursed commitments from 'Eastern European Countries'of US $154 million) were still undisbursed. New commitments increased from US $88 million in 1972 to US $253 million in 1977 after which they dropped to US $93 million in 1979. The total outstanding and undisbursed debt was equal to 42 percent of GDP and 4 times the size

Table 11. SOMALIA: EXTERNAL PUBLIC DEBT OUTSTANDING INCLUDING UNDISBURSED AS OF DEC. 31, 1979

INCLUDES ONLY DEBT COMMITTED JANUARY 1, 1900 - DECEMBER 31, 1979
DEBT REPAYABLE IN FOREIGN CURRENCY AND GOODS
(IN THOUSANDS OF U. S. DOLLARS)

Type of Creditor / Creditor Country	Debt Outstanding			In Arrears	
	Disbursed	Undisbursed	Total	Principal	Interest
Nationalization					
Italy	1,106	-	1,106	-	-
Total Nationalization	1,106	-	1,106	-	-
Multilateral Loans					
African Dev. Bank	2,938	-	2,938	191	79
African Dev. Fund	7,061	28,700	35,761	66	1
Arab Fund EC SOC DEV	34,688	25,338	60,026	-	-
IDA	62,502	67,531	130,033	-	-
Islamic Dev. Bank	7,658	30,968	38,626	-	-
OAPEC Special Acct.	7,300	2,660	9,960	-	-
OPEC Special Fund	2,050	7,700	9,750	-	-
Total Multilateral Loans	124,197	162,897	287,094	257	80
Bilateral Loans					
Abu Dhabi	67,048	39,999	107,047	-	-
Algeria	1,000	-	1,000	-	-
Bulgaria	4,876	-	4,876	32	43
China	87,177	74,389	161,566	-	-
German Dem. Rep.	1,095	-	1,095	171	17
Iraq	14,535	1,964	16,499	-	1,354
Kuwait	27,139	17,531	44,670	-	673
Libya	3,000	-	3,000	3,000	360
Qatar	10,000	-	10,000	4,287	1,350
Saudi Arabia	81,867	45,912	127,779	4,884	-
United States	12,691	17,700	30,391	-	-
USSR	109,974	-	109,974	425	71
Total Bilateral Loans	420,402	197,495	617,897	12,799	3,868
Total External Public Debt	545,705	360,392	906,037	13,056	3,948

Source: World Bank, External Debt Division.

Notes: (1) Only debts with an original or extended maturity of over one year are included in this table.
(2) Debt outstanding includes principal in arrears but excludes interest in arrears.

of export earnings. The large debt in relation to GDP points to a heavy service burden, and by 1983, the debt payments could amount to about 24 percent of expected export earnings.

Manpower

33. The composition of labour force by age, sex and urban and rural areas is shown in table (12). It excludes the population in nomadic areas of Somalia. The percentage of females of 25 years and over, except for 45-49 years, is higher than that of men, and it is still higher in respect of the group of 50 years and over.

Table 12. Labour force distribution by age, sex and areas

(Percentage)

Age-group	Urban			Rural			Total		
	male	female	total	male	female	total	male	female	total
10-14	19.5	14.9	17.2	19.1	14.7	16.9	19.2	14.8	17.1
15-19	14.2	16.1	15.2	14.6	12.5	13.6	14.5	14.0	14.3
20-24	14.3	13.4	13.8	12.1	11.4	11.7	13.0	12.3	12.6
25-29	9.9	10.4	10.1	7.7	8.7	8.2	8.6	9.4	9.0
30-34	9.8	11.1	10.4	8.7	10.7	9.7	9.1	10.9	10.0
35-39	5.6	5.6	5.6	4.8	5.0	4.9	5.2	5.3	5.2
40-44	6.9	7.3	7.1	6.5	7.4	7.0	6.7	7.4	7.0
45-49	2.5	2.2	2.4	2.5	2.2	2.3	2.5	2.2	2.3
50 +	11.2	13.5	12.4	13.1	14.9	14.0	12.3	14.3	13.3
Not stated	6.1	5.5	5.8	10.9	12.5	11.7	8.9	9.4	9.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Statistical Abstract 1979, State Planning Commission.

CHAPTER II

Manufacturing Sector: General Characteristics and Performance

34. Manufacturing industry in Somalia is still in a stage of infancy. Inspite of this, overall manufacturing output has been declining over the past few years and the production of major items such as sugar, textiles, edible oils is lower to-day than in 1978.[1/]

35. The industrial sector is composed of public and private firms. Since the policy of the Government is to give " control of the commanding heights of the economy" to the public sector, large manufacturing enterprises are at present mainly in the public sector. Public ownership and management has expanded through nationalization, creation and growth of enterprises. The public sector had at the beginning of 1979 some 50 autonomous agencies.

36. Private ventures are mostly small-scale enterprises. Current private investment is mainly in speculative short-term assets such as trade inventories, real estate and housing. Thus, public sector industries are predominant, and are to be found in the relatively large and medium establishments. Table (13) below provides information of the number of private and public sector enterprises in the manufacturing sector in the years 1977 to 1978, their respective contribution to employment, gross output and value added. According to the table, there were 277 manufacturing establishments of which 53 were publicly owned and 244 private.

37. It is observed that with 72 large establishments, the food manufacturing subsector is the largest, followed by wearing apparel with 44 establishments and furniture and fixtures with 36 establishments. Of the total 277 establishments in the manufacturing sector, these three subsectors together had 152 establishments or more than 50 percent

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1/ UNLDC, country review meetings, country presentation, Somalia, United Nations 1981.

Table 13. Public and private industrial establishments, 1978

Product	Number of establishments			Number of employees			In millions of Somalian shillings: Gross output			In millions of Somalian shillings: Value added		
	Private	Public	Total	Private	Public	Total	Private	Public	Total	Private	Public	Total
Food manufacture	59	13	72	492	3,411	3,903	21.7	136.0	157.7	7.3	57.7	65.0
Beverages	4	1	5	216	529	745	33.1	45.0	78.1	23.5	32.6	56.1
Textiles	10	1	11	134	1,582	1,716	0.4	64.0	64.4	0.2	37.0	37.2
Wearing apparels	42	2	44	245	227	472	6.7	5.0	11.7	2.4	2.2	4.6
Leather and footwear	12	3	15	253	266	519	10.2	15.5	25.7	3.8	3.4	7.2
Furniture and fixtures	30	6	36	316	148	464	8.8	2.8	11.6	3.8	1.2	5.0
Publishing and printing	-	1	1	-	928	928	-	31.2	31.2	-	20.7	20.7
Other chemicals	5	1	6	176	31	207	22.5	0.7	23.2	3.8	0.2	4.0
Plastics	-	1	1	-	195	195	-	31.5	31.5	-	16.6	16.6
Pottery	2	-	2	15	-	15	Neg.	-	Neg.	Neg.		Neg.
Structural clay	19	5	24	217	409	626	8.0	13.6	21.6	2.0	8.9	10.9
Lime	9	-	9	124	-	124	0.6	-	0.6	0.5	-	0.5
Metal products	12	2	14	134	139	273	4.4	6.0	10.4	1.9	4.1	6.0
Jewellery	12	-	12	72	-	72	2.8	-	2.8	0.8	-	0.8
Other industries	8	2	10	353	364	717	3.1	14.0	17.1	2.3	4.5	6.8
Electric light and power	-	10	10	-	866	866	-	27.0	27.0	-	10.5	10.5
Water works	-	5	5	-	640	640	-	21.7	21.7	-	16.3	16.3
Total	224	53	277	2,747	9,535	12,482	122.3	414.0	536.3	52.3	215.9	268.2

Source: The sectoral plan chapter on industry, prepared by the National Planning Commission; and the 1979 Statistical Department of the National Planning Commission.

of the total. Of the 152 establishments, 131 establishments were privately owned. Numberically, the manufaturing sector is dominated by private ownership. The larger emplyers are food manufacture, textiles, printing and publishing and electric light and power. The largest contributors to gross output are food, beverages, textiles, plastics and printing and publishing. Regarding the contributions of value added as a percentage of gross output, the largest subsectors are beverages, printing and publishing, textiles, metal products and plastics. It is estimated by the Statistical Department that since 1977 to 1978 the number of industrial establishments increased by 42 percent, emplyment by 86.7 percent, gross production by 144 percent and value added by 119 percent.

Regional distribution of manufacturing establishments

38. Table (14) below shows the distribution of establishments among districts in 1971 and 1978. With 1,501 establishments or 49.3 percent, the predominant number of manufacturing establishments were in Mogadiscio. With 408 establishments or 13.4 percent, Hargeisa was second, and Chisimaio then came third with 133 establishments or 4.4 percent in 1978. So Mogadiscio, Hargiesa and Chisimaio had 67.1 percent of the total number of manufacturing establishments.

Manufacturing performance

39. The performance of the manufacturing sector could be viewed from the stand point of its contribution to total output, value added, employment, foreign exchange earnings or savings. Here below some major aspects of the performance of the industrial sector are discussed, albeit using statistical data that are rather inadequate in coverage and period of time.

Gross output 1974-1977

40. Table (15) below shows manufacturing gross output in current prices for the years 1974 to 1977. Food manufacturing is the largest producer in terms of value of the products. The food manufacturing subsector

.../..

Table 14 . Regional Distribution of Manufacturing Establishments

District	1971		1978		Growth 1971 - 1978	
	No.	%	No.	%	No.	%
1. Mogadishu	1,263	49.0	1,501	49.3	238	2.7
2. Chalambod + Genale	39	1.5	36	1.2	-3	1.1
3. Afgoi	63	2.5	59	1.9	-4	0.9
4. Merka	206	0.0	119	3.9	-87	-6.0
5. BaLAD	10	0.4	23	0.8	13	18.6
6. Gioher	51	2.0	113	3.7	62	17.4
7. Chiamaio	98	3.8	133	4.4	35	5.1
8. Baidoa	56	2.2	77	2.5	21	5.4
9. Giamama	59	2.3	35	1.2	-24	-5.8
10. Barava	35	1.4	43	1.4	8	3.3
11. Gelib	36	1.4	20	0.7	-16	-6.3
12. Bur-Hacaba	9	0.3	23	0.8	14	22.2
13. Galkayo	12	0.5	30	1.0	18	21.4
14. Beiet Weine	71	2.8	84	2.8	13	2.6
15. Elbur	8	0.3	6	0.2	-2	-3.6
16. Bulo-burto	24	0.9	41	1.3	17	10.1
17. Duso Mareb	8	0.3	16	0.5	8	14.3
18. Hobyo	40	1.6	2	0.0	38	-13.6
19. Garowe	-	-	8	0.3	-	-
20. Las Anod	-	-	11	0.4	-	-
21. Gardo	-	-	8	0.3	-	-
22. Bosasso	17	0.7	9	0.3	-8	-6.7
23. Habo-poli-mok	2	0.0	-	-	-	-
24. Kandala	1	0.0	1	0.0	-	-
25. Alula	1	0.0	-	-	-	-
26. Erigavo	10	0.4	44	1.54	34	48.6
27. Las-koreh	6	0.2	1	0.0	-5	-11.9
28. Burao	110	4.3	85	2.8	-25	-3.2
29. Hargeisa	236	9.1	408	13.4	172	10.4

Table 15 : Gross output at current prices, 1974-77

(in thousands of So. Sh.)

Branch	1974		1975		1976		1977	
	Value	% share	Value	% share	Value	% share	Value	% share
Food manufacturing	178,000	55.2	157,410	42.2	209,090	46.9	201,460	38.5
Beverage industries	9,220	2.9	22,300[a/]	6.0	60,800[a/]	13.6	60,990[a/]	11.6
Tobacco manufacturing	0	0.0						
Textiles	19,710	6.1	35,490	9.5	31,370	7.0	77,100	14.7
Wearing apparel, exc. footwear	9,460	2.9	5,060	1.4	12,090	2.7	9,630	1.8
Leather and leather products, leather substitutes, fur, footwear, except vulcanized or moulded rubber or plastic footwear	12,850	4.0	9,810	2.6	9,490	2.1	19,310	3.7
Wood, wood + cork products, except furniture	0	0.0	0	0.0	0	0.0	0	0.0
Furniture + fixtures, exc. primarily of metal	8,480	2.6	8,140	2.2	9,400	2.1	8,540	1.6
Paper + paper products	0	0.0	0	0.0	0	0.0	0	0.0
Printing, publishing + allied industries	21,010	6.5	72,180	19.3	22,790	5.1	57,890	11.1
Industrial chemicals	0	0.0	0	0.0	0	0.0	0	0.0
Other chemical products	12,090	3.8	14,960	4.0	18,850	4.2	20,840	4.0
Petroleum refineries	0	0.0	0	0.0	0	0.0	0	0.0
Misc. petroleum + coal products	0	0.0	0	0.0	0	0.0	0	0.0
Rubber products	0	0.0	0	0.0	0	0.0	0	0.0
Plastic products not elsewhere classified	29,970	9.3	22,910	6.1	44,680	10.0	28,260	5.4

Table 15 Gross output at current prices, 1974-77 (in thousands of So. Sh.) (continued)

	1974		1975		1976		1977	
	Value	% share	Value	% share	Value	% share	Value	% share
Pottery, china, earthenware	40	0.0	620	0.2	90	0.0	90	0.0
Glass, glass products	0	0.0	0	0.0	0	0.0	0	0.0
Other non-metallic mineral products	10,430	3.2	12,450	3.3	11,690	2.6	16,620	3.2
Iron + steel basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Non-ferrous metal basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Fabricated metal products, exc. machinery and equipment	4,770	1.5	3,190	0.9	5,390	1.2	2,780	0.5
Machinery, except electrical	0	0.0	0	0.0	0	0.0	0	0.0
Electrical machinery apparatus, appliances and supplies	0	0.0	0	0.0	0	0.0	0	0.0
Transport equipment	0	0.0	0	0.0	0	0.0	0	0.0
Professional, scientific, measuring + controlling equip. not elsewhere classified; photographic and optical goods	0	0.0	0	0.0	0	0.0	0	0.0
Other manufacturing industries	6,340	2.0	8,770	2.3	9,970	2.2	20,230	3.9
TOTAL	322,370	100.0	373,290	100.0	445,700	100.0	523,740	100.0

Note: - = missing value

a/ Includes beverages and tobacco

Source: Data base, Regional and Country Studies Branch, UNIDO

produced goods worth So.Shs. 178 million (or 55.2 percent) in 1974; its products were worth about So.Shs. 201.5 million in 1977, but its percentage share in total production dropped to 38.5 percent in that year. The other relatively large producers in 1977 were textiles, beverages and tobacco, and printing and publishing with 14.7, 11.6 and 11.1 percent, respectively. Gross output of the four subsectors amounted to 75.9 percent of total output in 1977. It is worth noting that total gross output had been increasing every year from So.Shs. 322.4 million in 1974 to 523.7 in 1977.

41. Table (16) shows in percentages the growth rates of gross output. There were fluctuations in the growth rates in almost all subesctors. Food and manufacturing had declining growth rates from 77.2 percent in 1969/70 to 3.5 percent in 1976. After a positive rate of 26.8 in 1973-74, the growth rate declined to 11.5 percent in 1974-75, after which period the rate then rose to 32.8 percent in 1975-76.

42. Printing and publishing and textiles show increases of 154.0 percent and 145.8 percent 1976-77, respectively. The compound growth rate for the manufacturing sector as a whole declined; the growth rate was 52.9 percent in 1969-70 compared to 17.5 percent in 1976-77. The declines were more marked in 1971-72 and 1972-73 when they were 3.2 and 4.6 percent, respectively. There was a remarkable jump in the growth rate to 45.2 in 1973-74. This was due to significant growth in a few sub-sectors.

Manufacturing value added 1974-1977

43. Table (17) shows manufacturing value added for 1974-1977 in current prices. There was an increase from So.Shs. 101.9 million in 1974 to So.Shs. 243.0 million in total manufacturing value added in 1977. Manufacturing value added fluctuated and the fluctuations are reflected in the contributions of some subsectors from year to year. Taking 1977, food manufacture, beverages and tobacco, textiles, printing and publishing contributed 28.3, 17.1, 17.6 and 14.5 percent, respectively. With 77.5 percent of the total manufacturing value added in 1977, the four sub-sectors were the predominant industrial activities.

.../..

Table 15: Growth-Rates of Gross Output for Somalia

(per cent)

Branch	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Food manufacturing	77.2	20.9	-6.5	-9.2	26.8	-11.5	32.8	-3.5
Beverage industries	-8.9	-6.0	59.3	-13.8	29.0	(0)	172.6[a/]	0.3[a/]
Tobacco manufacture	(0)	(0)	(0)	(0)	(0)	(0)		
Textiles	(0)	89.4	52.4	61.5	-21.5	80.1	-11.5	145.8
Wearing apparel, except footwear	(0)	(0)	(0)	16.3	240.3	-46.4	138.9	-20.2
Leather + leather prod., leather substitutes, fur, footwear, except vulcanized or moulded rubber or plastic footwear, + wearing apparel	-5.9	17.4	-17.2	162.9	113.5	-23.6	-3.2	103.5
Wood + wood + cork products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Furniture + fixtures, except primarily of metal	3.6	17.6	-4.5	31.1	84.3	-3.9	15.5	-9.0
Paper + paper products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Printing, publishing + allied industries	-4.6	31.7	28.7	18.9	96.7	243.6	-68.3	154.0
Industrial chemicals	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other chemical products	-33.7	62.0	39.1	14.9	29.3	23.7	26.0	10.6
Petroleum refineries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Misc products of petroleum + coal	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Rubber products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Plastic products not elsewhere classified	(0)	(0)	(0)	266.9	430.4	-23.5	95.0	-36.7
Pottery, china + earthenware	(0)	(0)	(0)	(0)	(0)	1450.0	-85.4	(0)
Glass + glass products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other non-metallic mineral [illegible]	-43.2	-6.0	73.8	54.6	81.1	[illegible]	[illegible]	[illegible]

Table 16. Growth-Rates of Gross Output for Somalia (continued)

Branch	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Iron + steel basic industries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Non-ferrous metal basic	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Fabricated metal products, except machinery + equipment	-75.3	54.2	36.5	96.0	140.9	-33.0	69.0	-48.3
Machinery except electrical	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Electrical machinery apparatus, appliances + supplies	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Transport equipment	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Professional + scientific + measuring + controlling equipment not elsewhere classified, + of photographic + optical goods	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other manufacturing industries	-56.8	90.3	-17.7	35.1	142.0	38.3	13.7	102.9
Total	52.9	23.6	3.2	4.6	45.2	15.8	19.4	17.5

a/ Includes beverages and tobacco.

Source: Data base, Regional and Country Studies Branch, UNIDO

Table 17 : Manufacturing value added in current prices, 1974-1977
(in thousands of So. Shs.)

Branch	1974 Value	1974 % share	1975 Value	1975 % share	1976 Value	1976 % share	1977 Value	1977 % share
Foor manufacturing	43,090	42.3	41,510	35,1	80,160	45.1	68,820	28.3
Beverage industries	2,440	2.4	10,420[a/]	8.8[a/]	41,660[a/]	23.5[a/]	41,560[a/]	17.1[a/]
Tobacco manufactures	0	0.9						
Textiles	9,970	9.8	8,080	6.8	14,930	8.4	42,690	17.6
Wearing apparel, exc. footwear	3,900	3.8	1,670	1.4	1,850	1.0	5,580	2.3
Leather + leather prod., leather substitutes, fur, footwear, exc. vulcanized or moulded rubber or plastic footwear + wearing apparel	5,890	5.8	3,940	3.3	3,240	1.0	7,220	3.0
Wood, wood + cork prod., except furniture	0	0.0	0	0.0	0	0.0	0	0.0
Furniture + fixtures, exc. primarily of metal	3,900	3.8	3,080	2.6	3,910	2.2	1,790	0.7
Paper + paper products	0	0.0	0	0.0	0	0.0	0	0.0
Printing, publishing + allied industries	10,650	10.4	23,740	20.1	14,550	8.2	32,250	14.5
Industrial chemicals	0	0.0	0	0.0	0	0.0	0	0.0
Other chemical products	870	0.9	2,830	2.4	4,230	2.4	4,060	1.7
Petroleum refineries	0	0.0	0	0.0	0	0.0	0	0.0
Misc. petroleum + coal prod.	0	0.0	0	0.0	0	0.0	0	0.0
Rubber products	0	0.0	0	0.0	0	0.0	0	0.0
Plastic products not elsewhere classified	12,320	12.1	9,820	8.3	4,260	2.4	20,320	8.4

Table 17. Manufacturing value added in current prices, 1974-1977 (in thousands of So. Shs.) (continued)

Branch	1974 Value	1974 % share	1975 Value	1975 % share	1976 Value	1976 % share	1977 Value	1977 % share
Pottery, china, earthenware	30	0.0	0	0.0	90	0.1	80	0.0
Glass, glass products	0	0.0	0	0.0	0	0.0	0	0.0
Other non-metallic mineral products	3,060	3.0	5,980	5.1	3,250	1.8	7,030	2.9
Iron + steel basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Non-ferrous metal basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Fabricated metal products, exc. machinery + equipment	2,050	2.0	1,460	1.2	1,550	0.9	850	0.3
Machinery, exc. electrical	0	0.0	0	0.0	0	0.0	0	0.0
Electrical machinery apparatus, appliances + supplies	0	0.0	0	0.0	0	0.0	0	0.0
Transport equipment	0	0.0	0	0.0	0	0.0	0	0.0
Professional, scientific, measuring + controlling equip. not elsewhere classified; photographic + optical goods	0	0.0	0	0.0	0	0.0	0	0.0
Other manufacturing industries	3,750	3.7	5,730	4.8	3,870	2.2	7,780	3.2
Total	101,920	100.0	118,260	100.0	177,550	100.0	243,030	100.0

Note: - = missing value

Source: Data base, Regional and Country Studies Branch, UNIDO

a/ Includes beverage and tobacco

44. Table (18) below provides information on the percentage compound interest growth rate of value added for the years 1969-70 to 1978-79. There were fluctuations and downward trends in the compound growth rate of the manufacturing sector during this period. The compound growth rate for the subsector dropped from 52.7 percent in 1969-70 to 39.6 percent in 1978-79. After 1969-70, the second best year for growth of manufacturing value added was 1975-76 when the rate was 50.1 percent. The rate continued to decline thereafter until 1978-79 when it recorded a negative decline of -39.6 percent.

Gross fixed capital

45. Capital formation in the industrial sector has been receiving the lion's share of the resources allocated to the development plans since 1970. In specific terms gross fixed capital formation in this sector has more than doubled from 1974-1978, i.e. during the second five-year development plan.

46. In table (19) the value and share of each manufacturing subsector in the gross fixed capital formation are given for the years 1974 to 1977. In 1976, gross fixed capital formation was recorded at its highest value of So.Shs. 125,825,000 compared with So.Shs. 92,704,000 in 1977. There was therefore a decline of 33,121,000 comparing 1976 and 1977. By percentage shares, the highest gross fixed capital formation was (in 1977) in textiles, food manufacture, printing and publishing and manufacture of other non-metallic mineral products; the percentage shares for these subsectors were: 28.7, 11.4, 9.3, 42.4 and 29.0, respectively. So the share of these four subsectors in the total gross fixed capital formation in the manufacturing sector was 91.8; this demonstrates their dominance in the sector.

47. Table (20) shows the compound interest growth rate of gross fixed capital formation for the years 1969-70 and 1976-77. In 1969-70, there was a negative compound interest growth rate positive of -41.7 percent, which, after significant growth rates in all the intervening years, except in 1974-75, dropped to -26.2 (after a positive growth rate of 100.8 percent in 1975-76). At 268.0 percent, 1973-74 had the highest

.../..

Table 18 : Compound interest growth rates of value added, 1969-70 to 1978-79

(per cent)

Branch	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
Food manufacturing	77.1	5.3	1.8	-23.6	-40.9	-3.6	93.1	-14.0	-2.9	-5.0
Beverage industries	-14.5	18.1	0.0	11.3	-11.5	(0)	299.8[a/]	-0.1[a/]	(0)	(0)
Tobacco manufacture	(0)	(0)	(0)	(0)	(0)	(0)			(0)	(0)
Manufacture of textiles	(0)	239.5	6.2	183.7	-24.3	-18.9	84.8	185.9	6.8	(0)
Manufacture of wearing apparel, except footwear	(0)	(0)	(0)	27.8	239.1	-57.1	10.8	201.6	(0)	(0)
Leather + leather prod., leather substitutes, fur, footwear, except vulcanized or moulded rubber or plastic footwear, + wearing apparel	-16.1	-12.8	-6.5	143.9	111.9	-33.0	-17.7	122.8	(0)	(0)
Manufacture of wood and cork products, except furniture	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Manufacture of furniture and fixtures, except primarily of metal	-11.4	57.4	-4.9	36.6	66.0	-20.9	26.9	-54.1	(0)	(0)
Manufacture of paper and paper products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Printing, publishing and allied industries	-18.1	41.0	41.4	18.4	37.1	122.9	-38.6	142.3	(0)	(0)
Manufacture of industrial chemicals	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Manufacture of other chemical products	-99.5	1700.0	39.8	21.2	-56.4	225.3	49.5	-3.9	(0)	(0)
Petroleum refineries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Manufacture of miscellaneous products of petroleum + coal	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Manufacture of rubber products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Table 18. Compound interest growth rates of value added, 1969-70 to 1978-79 (continued)

Branch	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
Manufacture of plastic products not elsewhere classified	(0)	(0)	(0)	(0)	600.0	-20.2	-56.5	377.0	(0)	(0)
Manufacture of pottery, china and earthenware	(0)	(0)	(0)	(0)	(0)	(0)	(0)	-11.0	(0)	(0)
Manufacture of other non-metallic mineral products	-67.5	110.4	-43.7	114.3	56.9	95.4	-45.6	116.3	(0)	(0)
Iron and steel basic industries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Non-ferrous metal basic industries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Manufacture of fabricated metal products, except machinery and equipment	-79.5	142.1	0.0	91.3	133.0	-28.7	6.2	-45.1	(0)	(0)
Manufacture of machinery except electrical	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Manufacture of electrical machinery apparatus, appliances and supplies	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Manufacture of transport equipment	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Manufacture of professional + scientific + measuring + controlling equipment not elsewhere classified, and of photographic + optical goods	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other manufacturing industries	(0)	189.3	-46.2	54.0	179.9	52.8	-32.4	101.0	(0)	(0)
TOTAL	52.7	13.3	3.1	-5.0	-8.0	16.0	50.1	36.9	0.4	-39.6

Source: Data base, Regional and Country Studies Branch, UNIDO

a/ Includes beverage and tobacco

Table 19: Gross fixed capital formation at current prices, 1974 to 1977 (in Thousand So. Sh.)

Branch	1974 value	1974 % share	1975 value	1975 % share	1976 value	1976 % share	1977 value	1977 % share
Food manufacturing	11448	16.9	17431	27.8	50333	40.0	10543	11.4
Beverage industries	2735	4.0	1058[a]	1.7[a]	16875[a]	13.4[a]	2677[a]	2.9[a]
Tobacco manufactures	0	0.0						
Manufacture of textiles	533	0.8	39913	63.7	47564	37.8	26587	28.7
Manufacture of wearing apparel, except footwear	165	0.2	24	0.0	16	0.0	17	0.0
Leather + leather products, leather substitutes, fur, footwear, except vulcanized or moulded rubber or plastic footwear, + wearing apparel	1307	1.9	612	1.0	978	0.8	2109	2.3
Manufacture of wood and wood and cork products, except furniture	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of furniture and fixtures, except primarily of metal	699	1.0	405	0.6	721	0.6	61	0.1
Manufacture of paper and paper products	0	0.0	0	0.0	0	0.0	0	0.0
Printing, publishing and allied industries	4089	6.0	2591	4.1	5306	4.2	8639	9.3
Manufacture of industrial chemicals	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of other chemical products	192	0.3	303	0.5	1473	1.2	2369	2.6
Petroleum refineries	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of miscellaneous products of petroleum and coal	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of rubber products	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of plastic products not elsewhere classified	41912	61.8	0	0.0	449	0.4	97	0.1
Manufacture of pottery, china and earthenware	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of glass and glass products	0	0.0	0	0.0	0	0.0	0	0.0

Table 19. Gross fixed capital formation at current prices, 1974 to 1977 (in Thousand So. Sh.) (continued)

Branch	1974 value	1974 % share	1975 value	1975 % share	1976 value	1976 % share	1977 value	1977 % share
Manufacture of other non-metallic mineral products	4606	6.8	186	0.3	564	0.4	39325	42.4
Iron and steel basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Non-ferrous metal basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of fabricated metal products, except machinery and equipment	67	0.1	28	0.0	1489	1.2	29	0.0
Manufactury of machinery except electrical	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of electrical machinery apparatus, appliances and supplies	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of transport equipment	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of professional and scientific and measuring and controlling equipment not elsewhere classified, and of photographic and optical goods	0	0.0	0	0.0	0	0.0	0	0.0
Other manufacturing industries	38	0.1	108	0.2	57	0.0	251	0.3
TOTAL	67811	100.0	62659	100.0	125825	100.0	92704	100.0

Note: - = missing value

Source: Data base, Regional and Country Studies Branch, UNIDO

a/ Includes beverage and tobacco

Table 20 : Compound interest growth rates of gross fixed capital formation for Somalia, 1969-70 to 1976-77

(per cent)

Branch	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Food manufacturing	-54.6	243.9	-34.6	109.3	10.3	52.3	188.8	-79.0
Beverage industries	-39.3	13.2	33.6	-19.5	208.7	(0)	1,495.0[a/]	-84.0[a/]
Tobacco manufacture	(0)	(0)	(0)	(0)	(0)	(0)		
Textiles	(0)	28.7	440.5	-91.9	37.6	7117.5	19.2	-44.0
Wearing apparel, except footwear	(0)	(0)	(0)	-55.5	4025.0	-85.4	-33.2	6.2
Wood + wood + cork products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Furniture + fixtures, except primarily of metal	16.2	-12.7	466.7	-92.8	2230.0	-42.0	78.0	-91.4
Paper + paper products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Printing, publishing + allied industries	-16.2	202.4	161.0	7.8	290.5	-36.5	104.8	62.8
Industrial chemicals	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other chemical products	2414.0	-26.8	51.4	-65.7	-53.0	57.8	386.1	60.8
Petroleum refineries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Misc products of petroleum + coal	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Rubber products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Plastic products not elsewhere classified	(0)	(0)	(0)	272.0	778.8	(0)	(0)	-78.3
Pottery, china + earthenware	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Glass + glass products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other non-metallic mineral products	-35.6	66.7	-89.9	2933.3	4961.5	-95.9	203.2	6872.5

Table 20. Compound interest growth rates of gross fixed capital formation for Somalia, 1969-70 to 1976-77 (continued)

Branch	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Leather and leather prod., leather substitutes, fur, footwear, except vulcanized or moulded rubber or plastic footwear	-98.2	880.0	-95.8	4,812.5	232.6	-53.1	59.8	115.6
Iron + steel basic industries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Non-ferrous metal basic industries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Fabricated metal products, except machinery + equipment	-98.0	0.0	(0)	(0)	1016.7	-58.1	5217.9	-98.0
Machinery except electrical	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Electrical machinery apparatus, appliances + supplies	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Transport equipment	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Professional + scientific + measuring + controlling equipment not elsewhere classified, + of photographic + optical goods	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other manufacturing industries	-98.4	-79.9	-33.2	300.0	375.0	184.2	-47.1	340.4
TOTAL	-41.7	116.2	38.5	23.0	268.0	-7.5	100.8	-26.2

Source: Data base, Regional and Country Studies Branch, UNIDO

a/ Includes beverages and tobacco

growth rate. It is noticed from the table that there were marked divergencies of growth among subsectors and years.

Establishments, average number of employees, wages and salaries

48. Table (21) provides information on the total number of establishments for the years 1974 to 1977. Food, wearing apparel, furniture and fixtures and other non-metallic mineral products had 24.5, 17.9, 10.9 and 17.5 percent, respectively, of the total number of establishments; they together had 70.8 percent of the establishments in 1977.

49. The total number of employees in the manufacturing establishments increased from 8,448 in 1974 to 10,460 workers in 1977 as is seen from table (22). The food manufacturing subsector has been the largest sigle job provider. It employed 3,793 persons or 36.3 percent of the total employees of the manufacturing sector in 1977. Textiles employed 1,893 persons or 18.1 percent in the same year. None of the remaining manufacturing subsectors provided up to 9.0 percent employment of the total employees in the sector.

50. Coumpound interest growth rates of the average number of employees is given in table (23) for the years 1964-70 to 1976-77. The total rate of growth was 27.3 percent in 1969-70, compared with 8.4 percent in 1976-77, with 36.1 percent for 1973-74 being the highest growth rate. The average rate for the whole period under consideration was about 13.3 percent. It is noteworthy that in 1971-72 there was a negative growth rate of -15.1 percent.

51. Wages and salaries of employees are shown in table (24) for the years 1974 to 1977. The total wage bill increased from So.Shs. 37.3 million in 1974 to So.Shs. 63 million in 1977; they were increased from year to year. With 34.6 percent, 20.7 percent and 12.5 percent, respectively, food manufacturing, textiles and printing and publishing were bearing the largest wage bill burden. None of the remaining manufacturing sectors had a wage bill exceeding 10 percent of the total.

.../..

Table 21: Number of Establishments

Branch	1974 Number	1974 Percentage	1975 Number	1975 Percentage	1976 Number	1976 Percentage	1977 Number	1977 Percentage
Food manufacturing	81	21.6	71	24.7	64	25.1	63	24.5
Beverage industries	5	1.3	4[a]	1.4[a]	4[a]	1.6[a]	5[a]	1.9[a]
Tobacco manufactures	0	0.0						
Textiles	29	7.7	24	8.4	21	8.2	10	3.9
Wearing apparel, exc. footwear	54	14.4	34	11.8	34	13.3	46	17.9
Leather + leather prod., leather substitutes, fur, footwear, exc. vulcanized or moulded rubber or plastic footwear + wearing apparel	29	7.7	18	6.3	19	7.5	19	7.4
Wood, wood + cork prod., except furniture	0	0.0	0	0.0	0	0.0	0	0.0
Furniture + fixtures, exc. primarily of metal	37	9.9	34	11.8	25	9.8	28	10.9
Paper + paper products	0	0.0	0	0.0	0	0.0	0	0.0
Printing, publishing + allied industries	1	0.3	1	0.3	1	0.4	1	0.4
Industrial chemicals	0	0.0	0	0.0	0	0.0	0	0.0
Other chemical products	10	2.7	10	3.5	9	3.5	7	2.7
Petroleum refineries	0	0.0	0	0.0	0	0.0	0	0.0
Misc. petroleum + coal products	0	0.0	0	0.0	0	0.0	0	0.0
Rubber products	0	0.0	0	0.0	0	0.0	0	0.0
Plastic products not elsewhere classified	3	0.8	1	0.3	1	0.4	1	0.4

Table 21. Number of Establishments

Branch	1974 Number	1974 Percentage	1975 Number	1975 Percentage	1976 Number	1976 Percentage	1977 Number	1977 Percentage
Pottery, china, earthenware	5	1.3	1	0.3	2	0.8	4	1.6
Glass, glass products	0	0.0	0	0.0	0	0.0	0	0.0
Other non-metallic mineral products	63	16.8	58	20.2	40	15.7	45	17.5
Iron + steel basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Non-ferrous metal basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Fabricated metal products, exc. machinery + equipment	28	7.5	9	3.1	10	3.9	8	3.1
Machinery, exc. electrical	0	0.0	0	0.0	0	0.0	0	0.0
Electrical machinery apparatus, appliances + supplies	0	0.0	0	0.0	0	0.0	0	0.0
Transport equipment	0	0.0	0	0.0	0	0.0	0	0.0
Professional, scientific, measuring + controlling equip. not elsewhere classified; photographic + optical goods	0	0.0	0	0.0	0	0.0	0	0.0
Other manufacturing industries	30	8.0	22	7.7	25	9.8	20	7.8
Total	375	100.0	287	100.0	255	100.0	257	100.0

Note: – = Missing number

Source: Data Base, Regional and Country Studies Branch, UNIDO

Table 22: Average Number of Employees 1974 - 1977

Branch	1974		1975		1976		1977	
	Number	% share	Number	% share	Number	% share	Number	% share
Food manufacturing	3190	37.8	4210	44.4	3839	39.8	3792	36.3
Beverage industries	205	2.4	810	8.5[a/]	679[a/]	7.0[a/]	773[a/]	7.4[a/]
Tobacco manufacturing	0	0.0	-		-		-	
Textiles	1295	15.3	1030	10.9	1272	13.2	1893	18.1
Wearing apparel, exc footwear	295	3.5	145	1.5	292	3.0	406	3.9
Leather + leather products, leather substitutes, fur, footwear, except vulcanized or moulded rubber or plastic footwear	504	6.0	422	4.4	390	4.0	475	4.5
Wood, wood + cork products, except furniture	0	0.0	0	0.0	0	0.0	0	0.0
Furniture + fixtures, exc. primarily of metal	485	5.7	385	4.1	366	3.8	282	2.7
Paper + paper products	0	0.0	0	0.0	0	0.0	0	0.0
Printing, publishing + allied industries	529	6.3	677	7.1	822	8.5	800	7.6
Industrial chemicals	0	0.0	0	0.0	0	0.0	0	0.0
Other chemical products	142	1.7	139	1.5	224	2.3	186	1.8
Petroleum refineries	0	0.0	0	0.0	0	0.0	0	0.0
Misc products of petroleum + coal	0	0.0	0	0.0	0	0.0	0	0.0
Rubber products	0	0.0	0	0.0	0	0.0	0	0.0
Plastic products not elsewhere classified	416	4.9	250	2.6	199	2.1	206	2.0
Pottery, china + earthenware	4	0.0	0	0.0	0	0.0	0	0.0

Table 3. Average Number of Employees 1974 - 1977 (continued)

Branch	1974		1975	
	Number	% share	Number	% share
Glass + glass products	0	0.0	0	0.0
Other non-metallic mineral products	627	7.4	569	6.0
Iron + steel basic industries	0	0.0	0	0.0
Non-ferrous metal basic indust.	0	0.0	0	0.0
Fabricated metal products, except machinery + equipment	251	3.0	140	1.5
Machinery except electrical	0	0.0	0	0.0
Electrical machinery apparatus, appliances + supplies	0	0.0	0	0.0
Transport equipment	0	0.0	0	0.0
Professional + scientific + measuring + controlling equipment not elsewhere classified, + of photographic + optical goods	0	0.0	0	0.0
Other manufacturing industries	505	6.0	715	7.5
TOTAL	8448	100.0	9492	100.0

Source: Data base, Regional and Country Studies Branch, UNIDO

Note: - = Missing number

	1976		1977	
	Number	% share	Number	% share
	0	0.0	0	0.0
	663	6.9	848	8.1
	0	0.0	0	0.0
	0	0.0	0	0.0
	248	2.6	72	0.7
	0	0.0	0	0.0
	0	0.0	0	0.0
	0	0.0	0	0.0
	0	0.0	0	0.0
	657	6.8	727	7.0
	9651	100.0	10,460	100.0

Table 23 : Compound Interest Growth Rates of Average Number of Employees for Somalia

Branch	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Food manufacturing	31.8	11.7	-26.9	22.7	4.7	32.0	-8.7	-1.1
Beverage industries	-18.4	3.7	16.8	-19.0	10.2	(0)	-16.1[a/]	13.6[a/]
Tobacco manufacture	(0)	(0)	(0)	(0)	(0)	(0)		
Textiles	(0)	-3.1	4.0	-7.2	73.6	-20.4	23.5	46.8
Wearing apparel, except footwear	(0)	(0)	(0)	25.9	63.9	-50.7	101.4	39.0
Leather + leather products, leather substitutes, fur, footwear, except vulcanized or moulded rubber or plastic footwear	1.5	41.1	-28.7	99.5	27.6	-16.2	-7.5	21.8
Wood + wood + cork products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Furniture + fixtures, except primarily of metal	50.2	6.2	-9.0	-11.9	61.7	-20.5	-4.8	-22.9
Paper + paper products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Printing, publishing + allied industries	17.3	1.2	0.4	55.7	33.2	28.0	21.4	-2.6
Industrial chemicals	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other chemical products	53.8	25.0	13.3	-14.0	-2.6	-2.0	61.2	-16.9
Petroleum refineries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Misc products of petroleum + coal	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Rubber products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Plastic products not elsewhere classified	(0)	(0)	(0)	229.2	163.3	-39.8	-20.3	-3.5
Pottery, china + earthenware	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Table 23. Compound Interest Growth Rates of Average Number of Employees for Somalia (continued)

Branch	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Glass + glass products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other non-metallic mineral products	-8.4	28.3	-10.5	65.4	79.7	-9.2	16.5	27.9
Iron + steel basic industries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Non-ferrous metal basic	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Fabricated metal products, except machinery + equipment	-64.0	184.8	-81.8	670.6	91.6	-44.1	77.1	-70.9
Machinery except electrical	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Electrical machinery apparatus, appliances + supplies	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Transport equipment	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Professional + scientific + measuring + controlling equipment not elsewhere classified, + of photographic + optical goods	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other manufacturing industries	-80.0	12.5	-29.5	77.9	198.8	41.6	-8.0	10.7
TOTAL	27.3	11.3	-15.1	24.2	36.1	12.4	1.7	8.4

Source: Data base, Regional and Country Studies Branch, UNIDO

a/ Includes beverages and tobacco.

Table 24 : Wages and salaries of employees at current prices, 1974 to 1977 (in Thousand So. Sh.)

Branch	1974 value	1974 % share	1975 value	1975 % share	1976 value	1976 % share	1977 value	1977 % sha
Food manufacturing	15478	41.5	20964	45.1	21836	38.6	21819	34.6
Beverage industries	1320	3.5	3528[a/]	7.6[a/]	5217[a/]	9.2[a/]	6145[a/]	9.8[a/]
Tobacco manufactures	0	0.0						
Manufacture of textiles	6684	17.9	7475	16.1	10447	18.5	13051	20.7
Manufacture of wearing apparel, except footwear	762	2.0	402	0.9	935	1.7	1559	2.5
Leather + leather products, leather substitutes, fur, footwear, except vulcanized or moulded rubber or plastic footwear	1853	5.0	2236	4.8	2492	4.4	3318	5.3
Manufacture of wood and wood and cork products, except furniture	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of furniture and fixtures, except primarily of metal	1008	2.7	1700	3.7	1780	3.1	1401	2.2
Manufacture of paper and paper products	0	0.0	0	0.0	0	0.0	0	0.0
Printing, publishing and allied industries	4042	10.8	3877	8.3	5593	9.9	7857	12.5
Manufacture of industrial chemicals	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of other chemical products	682	1.8	863	1.9	1007	1.8	1159	1.8
Petroleum refineries	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of miscellaneous products of petroleum and coal	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of rubber products	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of plastic products not elsewhere classified	2225	6.0	1445	3.1	2028	3.6	1684	2.7
Manufacture of pottery, china and earthenware	1	0.0	0	0.0	0	0.0	0	0.0
Manufacture of glass and glass products	0	0.0	0	0.0	0	0.0	0	0.0

Table 24. Wages and salaries of employees at current prices, 1974 to 1977 (in Thousand So. Sh.) (continued)

Branch	1974 value	1974 % share	1975 value	1975 % share	1976 value	1976 % share	1977 value	1977 % share
Manufacture of other non-metallic mineral products	1100	3.0	1549	3.3	2255	4.0	2667	4.2
Iron and steel basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Non-ferrous metal basic industries	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of fabricated metal products, except machinery and equipment	888	2.4	710	1.5	1193	2.1	429	0.7
Manufacture of machinery except electrical	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of electrical machinery apparatus, appliances and supplies	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of transport equipment	0	0.0	0	0.0	0	0.0	0	0.0
Manufacture of professional and scientific and measuring and controlling equipment not elsewhere classified, and of photographic and optical goods	0	0.0	0	0.0	0	0.0	0	0.0
Other manufacturing industries	1228	3.3	1695	3.6	1746	3.1	1920	3.0
TOTAL	37271	100.0	46444	100.0	56529	100.0	63009	100.0

Note: - = missing value

Source: Data base, Regional and Country Studies Branch, UNIDO

a/ Includes beverages and tobacco

52. Compound interest growth rates of salaries and wages are shown in table (25) for the years 1969-70 to 1976-77. The rate of growth for the whole sector was 55.7 percent in 1969-70 compared with 11.5 percent in 1976-77. The average compound interest growth rate for the period under review was 19.9 percent.

Capacity utilization in some plants

53. Table (26) shows the rate of capacity utilization for the years 1975-1979. The utilization of installed capacity has been fluctuating from year to year and from factory to factory. In 1979, apart from pasta production which was running at 63.7 percent of the installed capacity, all other plants were working below 50 percent of their capacity. Most of the excess capacity is attritutable to scarcity of funds, manpower with the necessary skills and capabilities, shortage of raw materials, spares and components, transport and transportation equipments, hostilities with Ethiopia and dislocation of some plants, especially meat and fish processing plants which arose from the almost spontaneous departure of the Russians and the withdrawals of their technical and financial assistance to those plants.

Table 25: Compound interest growth rates of wages and salaries of employees for Somalia

(per cent)

Branch	1969-70 per cent	1970-71 per cent	1971-72 per cent	1972-73 per cent	1973-74 per cent	1974-75 per cent	1975-76 per cent	1976-77 per cent
Food	70.1	-0.7	-45.4	20.3	18.9	35.4	4.2	0.0
Beverage industries	12.0	-7.5	34.9	-29.5	79.1	(0)	47.9[a]	17.8[a]
Tobacco	(0)	(0)	(0)	(0)	(0)	(0)		
Textiles	(0)	-1.5	23.7	8.3	50.6	11.8	39.8	24.9
Wearing apparel, except footwear	(0)	(0)	(0)	21.7	100.0	-47.1	132.6	66.7
Leather + products of leather, leather substitutes and fur, except footwear + wearing apparel	18.5	50.1	-19.5	113.6	9.1	20.7	11.4	33.1
Wood + wood + cork products, except furniture	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Furniture + fixtures except primarily of metal	75.5	8.3	0.6	-8.8	-6.5	68.7	4.7	-21.2
Paper + paper products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Printing, publishing + allied industries	78.3	-2.8	2.2	100.9	32.4	-4.0	44.3	40.5
Industrial chemicals	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other chemical products	42.3	77.4	33.0	2.4	-4.5	26.5	16.7	15.1
Petroleum refineries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Miscellaneous products of petroleum + coal	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Rubber products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Plastic products not elsewhere classified	(0)	(0)	(0)	421.0	244.4	-35.0	40.3	-16.9

Table 25. Compound interest growth rates of wages and salaries of employees for Somalia (continued)

(per cent)

Branch	1969-70 per cent	1970-71 per cent	1971-72 per cent	1972-73 per cent	1973-74 per cent	1974-75 per cent	1975-76 per cent	1976-77 per cent
Pottery, china + earthenware	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Glass + glass products	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other non-metallic mineral products	-16.7	29.6	19.7	82.9	45.3	40.8	45.6	18.3
Iron + steel basic industries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Non-ferrous metal basic industries	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Fabricated metal products, except machinery + equipment	-74.1	270.4	-79.9	535.0	133.1	-19.9	68.0	-63.9
Machinery except electrical	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Electrical machinery apparatus, appliances and supplies	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Transport equipment	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Professional + scientific + measuring + controlling equipment not elsewhere classified, + of photographic + optical goods	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other industries	-85.9	-23.1	-0.8	72.3	127.0	38.0	3.0	10.0
Total	55.7	1.8	-26.4	28.3	35.8	24.6	21.7	11.5

Source: Data base, Regional and Country Studies Branch, UNIDO

a/ Includes beverages and tobacco

Table 26 Rate of capacity utilisation of industrial plants

Factory and unit	Installed capacity	Percentage rate of capacity utilisation 1975	1976	1977	1978	1979
Sugar mill Jowhar (in tons)	42,200	75.5	78.7	71.1	56.7	28.7
Kismayu meat (in thousands of cans)	20,000	72.2	54.7	33.2	0.0	0.0
Sopral meat (in thousands of cans)	12,000	-	-	0.0	0.0	0.0
Laskorch fish (in thousands of cans)	6,600	23.5	19.8	22.6	0.0	0.0
Milk plant Mogadishu (in thousands of litres)	6,600	43.3	52.7	61.3	63.2	28.2
Pasta (in tons)	9,000	-	51.0	80.3	86.0	63.7
ITOP fruits and vegetables (in tons)	12,240	7.7	11.8	9.5	7.1	7.9
SOMALTEX (in millions of yards)	21.5	25.6	33.9	60.1	64.2	46.2
INCAS plastic bags (tons)	881	45.4	42.0	31.8	28.4	34.0
INCAS card board boxes (in tons)	19,000	-	33.7	25.0	23.7	25.8
Cigarettes (in tons)	585	-	51.3	49.6	41.0	44.4
Crude oil refinery (in thousands of tons)	500	-	-	-	-	49.8
Oil mill Mogadishu (in tons of oil seeds)	21,000	-	6.4	17.1	12.8	7.8
Bride factory Afgoi (in thousands of brides)	7,680	-	39.2	18.5	17.2	NA

Source: Ministry of National Planning, Mogadishu.

CHAPTER III

Resources Assessment

54. The resources of the country may be broadly grouped as (a) agricultural resources which cover crops, livestock, fisheries and forestry; (b) mineral resources; (c) human resources; (d) energy resources; and (e) financial resources for industrial investments. Each of these resources is discussed in the following paragraphs.

Agricultural resources

55. Table (27) provides details of land use in Somalia. The figures show that 37,000,000 hectares, or 58 percent of the total area, are suitable for crop and grazing, and of these, only 8,150,000 hectares, or 12.8 percent are suitable for crop.

Table 27: Land-use potential

	Area (hectares)	% of total area
Suitable for crops	8,150,000	12.8
Suitable for grazing	28,850,000	45.2
Non-agricultural land	26,765,000	42.0
Total	63,765,000	100.0

Source: Ministry of Agriculture, Mogadiscio.

56. At present nearly 540,000 hectares of land are cultivated under rain-fed conditions. There are two million hectares of land having good quality soils and situated in rainfall zones, which have potential for farming. Ground water surveys which have been carried out indicate that some regions have good potential for ground water development, and even for irrigation. However, very few wells exist, and in most cases no data are available on installation, soil strata, water quantity and quality, nor the long-term supply of ground water. The first action

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necessary for the economic exploitation of ground water resources is an exploratory drilling programme for the areas defined as having excellent or good potentials. Some detailed work should be undertaken in the most promising hydrological regions, i.e. the alluvial sub-regions of the Wadi Gohel system, the Erigavo-Gardo system and Togder-wadi Nogal system.

Crop resources

57. As far as irrigated farming is concerned, bananas are the most important cash crop and an important export commodity, second only to livestock exports. Sorghum is the main crop grown on rain-fed areas. Maize and sorghum are the two staple crops which are produced almost entirely by small farmers mainly for their own subsistence. Sugar cane, cotton and oilseeds are also important cash crops. Large part of the population including nomads as well as settled farmers produce mainly for their own consumption, and market only the small surplus which they may have in excess of their own family needs. The agriculture practices followed by small farmers have remained too simple, and in the absence of the use of modern techniques, productivity is low. Keeping in view the small size of holdings, natural calamities, availability of animal power and the traditional way of farming, the immediate need is to introduce animal-operated improved implements which would be suited to local conditions, coupled with added facilities for irrigation, use of better yielding and disease-resisting seeds, guidance on the use of fertilizers, and the use of manure and plant protection measures. This obviously points to the need for strengthening agricultural extension services.

58. As regards agricultural production, Table (28) below shows that there was stagnation during the 1970s. Production fluctuated from year to year. The production of bananas, declined from 130,000 tons in 1970 to 65,000 tons in 1977, and thereafter increased to 90,000 tons in 1979. Table (29) shows the changes in export and producers' prices of bananas.

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Table 28: Agricultural production, 1970-79

(000 metric tons)

Year	Food crops	Cash crops	Fruits	Vegetables
1970	294	511	196	29
1971	239	482	273	23
1972	276	448	365	27
1973	171	459	273	31
1974	115	418	248	33
1975	253	424	187	25
1976	263	396	219	26
1977	274	357	2)1	27
1978	271	376	219	27
1979	272	396	238	27

Source: Ministry of Agriculture, Mogadiscio (Agricultural Sector Draft Plan, 1982-1986).

59. Even though the cost of agricultural inputs has been sharply rising from year to year, only marginal benefits from rising export prices have been passed on to the producer. This, too, has been an important cause for the decline in banana production.

60. There have been substantial imports of cereals and cereal preparations. The dependence on imported cereals and cereal preparations increased from 59,000 tons in 1970 to 122,800 tons in 1977. The quantity of edible oils imported substantially increased. Total value of food imports as is shown in Table (30), went up sharply during the years 1970-1978.

61. The 1982-86 Plan puts emphasis on (a) increasing agricultural output at an average annual growth rate of 6.2 percent at 1980 constant prices; (b) achieving self-sufficiency in the production of sorghum and maize, sugar, fruits and vegetables, increase total production of oilseeds, cotton and rice so as to reduce imports; (c) boosting the export of bananas; and (d) developing agro-industries. For this purpose, measures would be taken to (1) ensure extensive and intensive utilization of land in public and private sectors; (2) intensify irrigation facilities and avoid water logging and salinity of the soil; (3) encourage the use of imported seeds and other inputs and promote plant protection measures through extension services; and (4) remodel the marketing and pricing policies in order to sustain growth in production. The implementation of the steps proposed for 1982-86 is expected to increase production substantially.

62. The growth rate in value is based on output at 1980 constant prices. However, the rate of growth in value added could be significantly lower since the value of fertilizers, pesticides, etc. would be much higher in 1986 compared to the base year. The existing yield levels are very low. Similar information about other crops is not available. Even the requirements for improved seeds, fertilizers and pesticides are mere estimates.

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Table 29: Banana prices in Somali shillings per ton

Year	Export Price	Producer price	Banana Board's cost and margin
1971	619	54)	79
1972	584	540	44
1973	604	540	64
1974	686	540	146
1975	989	680	309
1976	1,217	650	567
1977	1,216	750	466
1978	1,221	750	477

Source: National Banana Board, Mogadiscio

Table 30: Imports and exports of agricultural produce

(So.Sh. million)

	Food imports				Exports
Year	Cereals	Edible oils	Others	Total	Bananas
1970	55.0	0.0	34.5	89.5	62.7
1971	104.8	15.0	33.2	153.0	63.8
1972	56.4	14.7	51.1	122.2	78.2
1973	57.5	7.9	72.9	138.3	67.6
1974	71.5	12.8	89.4	173.7	79.8
1975	161.0	29.5	96.8	287.3	64.3
1976	134.1	41.4	30.9	206.4	178.7
1977	194.4	51.4	33.2	276.0	54.6
1978	31.1	32.0	121.1	184.2	54.1

Source: Directorate of Statistics, State Planning Commission, Mogadiscio

63. Soils need to be investigated. The alluvial soil do appear suitable for irrigated agriculture, but salinity or water logging may pose problems and prevent economically sould exploitation of ground water. The distribution of irrigated areas by regions and methods of irrigation are given in table (31) below. Table (32) provides information on present and potential cultivated areas in hectares.

Table 31: Distribution of irrigated areas
(000 hectares)

	Controlled Irrigation		Flood Irrigation		Total Irrigated	
	1970	1979	1970	1979	1970	1979
Shabelli Valley	25	30	25	50	50	80
Juba Valley	5	15	45	50	50	65
Other areas	-	1	-	4	-	5
Total	30	46	70	104	100	150

Source: Ministry of Agriculture, Mogadiscio.

64. The estimated present (1980) and potential areas of irrigated and rain-fed farming are shown in table (32).

Table 32: Present and potential cultivated areas
(000 hectares)

	Present	Potential	% used
Controlled irrigation	50	250	20.0
Uncontrolled flood irrigation	110	-	-
Rainfed	540	7,900	6.8
Total	700	8,150	26.8

Source: Ministry of Agriculture, Mogadiscio.

65. There is scope for horizental expansion of farming. The intesity of cropping on both irrigated land as well as dry farming is low; it might be increased by 25 percent.

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66. It appears that for the purpose of estimating potential for developing enterprises for the manufacture of fertilizers and pesticides, the data given in table (33) below could be taken as the level of minimum demand. Thus there appears to be reasonable scope for promoting enterprises for the manufacture of fertilizers and pesticides, fungicide, insecticide and herbicide formulations. Small plants for the manufacture of granulated mixed chemical fertilizers can be promoted; these could provide compositions suitable for crops and soils. What is stated here is subject to confirmation by feasibility studies.

67. The following still remain severe constraints to the development of agriculture; too small sizes of farm; high percentage of nomadic population; excessive dependence on uncertain rain for irrigation; inadequate grazing land which leads to overgrazing; inadquate investment in farming, and failure of the farmers to invest and to adopt new methods and techniques of farming, including mechanized farming; and inadequate availability of manpower for extension services. There is, however, scope for the introduction of improved animal-driven implements and for substantial expansion of such activities as the BAI project in Baidao. At the same time, a study should be undertaken of similar developments which are being undertaken in countries such as China, India, Pakistan, Sri Lanka and others. The mechanical and foundry shop established at Mogadiscio could be more extensively utilized to develop prototypes and even for the introduction of production of selected implements on a commercial scale.

68. The National Planning Ministry conducted a study of demand for important agriculture commodities up to 1986. Some of the information revealed by the study is given in table (34). The table reveals that in spite of emphasis being put on the agricultural sector during 1982-86, it would not be possible to attain self-sufficiency even in respect of the main commodities, except in case of sugar. It is encouraging to note that an exportable sugar surplus of 10,000 tons would be available in 1986. It is also observed that whereas in the

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Table 33. Requirements of selected inputs for selected crops in 1986

	Requirements (in tons)						Estimated consumption (in tons)		
	Targeted production (000 tons)	Targeted productivity per Ha. (tons)	Anticipated area (000 Ha)	Improved seeds	Fertilizers	Pesticides, etc.	Improved seeds	Fertilizers	Pesticides, etc.
Sorghum	275	0.5	550.0	10.0	-	2	5,500	-	1,100
Maize	150	1.5	100.0	20.0	50	2	2,000	5,000	200
Rice	20	2.3	8.7	100.0	100	15	870	870	131
Oilseeds	46	0.8	57.5	22.5	40	2	1,290	2,300	115
Sugar cane	980	70.0	14.0	20.0	50	2	280	700	28

Source: Draft Five-Year Development Plan, State Planning Commission, Mogadiscio, August 1981

Table 34. Production and demand for selected agricultural commodities

(000 tons)

Commodity	1981			1986		
	Production	Demand	Deficit/Surplus	Production	Demand	Deficit/Surplus
Surghum	175	225	- 80	275	292	- 17
Maize	110	137	- 27	150	157	- 7
Rice	12	71	- 59	20	90	-.70
Oilseeds	32	141	-109	46	177	-131
Sugar	50	73	- 23	98	88	+ 10

Source: National Planning Ministry, Mogadiscio

case of commodities consumed in the form of staple food the deficit would be initially small; but it would grow larger by 1986 in respect of rice and oilseeds, which are also important components of the diet of the people. In other words, agriculture is not expected to provide significant opportunities to develop industry based on locally produced surpluses. Efforts should not be spared, however, to promote industrial activities based on increased demand for processed agricultural commodities, where feasible. There are many products which could be produced from local raw materials, if only sufficient markets could be found to ensure their economic viability.

69. Rejected bananas, banana leaf fibre, stems and trunks offer industrial potentialities. Rejected bananas could br processed into powder used locally in confectionery manufacture and bakeries, or for export after being rendered much less hygroscopic than in its original form. Fried banana chips can also be popularized as snacks. There is great demand for bags for sugar, cement, flour, rice, oilseeds, and other products. Banana fibre is suitable for bags and can also be pulped and used in making cardboard, paperborad, and containers for banana export. The main factor remains the availability of adequate demand to justify production.

70. There are by-products from the sugar industry, such as bagasse. The use of bagasse for the manufacture of cardboard, gypsum boards and paper boards should be explored. However, this will not be possible as long as bagasse is used as fuel. Part of molasses could be used in the manufacture of alcohol, which is a chemical with many industrial uses, e.g. in alcoholic beverages. It can be mixed with petrol for use as fuel for automobiles. It is also used for the manufacture of cosmetics. Molasses can be further used for cattle feed. It is understood that the Juba Sugar Factory is presently exporting molasses, and that there are future plans to process it within the country and thus increase value added.

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71. The expansion proposed in the cultivation of cotton will increase the scope for delinting of cotton seeds and support one cotton ginning and bailing plant. Cottonseed contains 8 to 12 percent oil by weight. Cottonseed oil could also be sued for soap making, and the residual cake after recovery of the oil by a solvent extraction process could be used for cattle feed along with other oil cakes. (Of course, care would have to be exercised so that the cakes would not develop toxicity). The residual cakes of sesame and ground nuts could be subjected to solvent extraction process and the cakes left to be used thereafter for cattle feed. Ground nuts could also be sued for groundnut butter and in flour milling. Maize could be the basis for obtaining maize oild and flour. All these potentials or industrial opportunities depend upon an expansion of local production of surpluses for processing.

72. Even during the period of the next development plan, there does not appear to be possibilities of surplus cereals. However, there may be a possibility for using some quantity of sorghum for the manufacture of light beer; this could be explored. There is also scope for expanding the fruit juice and tomato paste)ketchup industries. To avoid seasonal shortages of fruits and vegetables it is necessary for cold storages to be established in the main cities. The possibility of manufacturing, papain and pectin from papaya should also be studied.

73. Rice straw is a suitable raw material for the manufacture of straw board, kraft paper, writing paper and cigarette paper. Rice bran oil can be obtained from the processing of paddy. Rice husk could be processed for the manufacture of activated carbon, which is used as a refining agent in the petroleum industry. Such possibilities as these are dependent upon prior substantial expansion in the cultivation and yield of rice.

Animal resouces

74. The basic requirement of the livestock industry is land, The land is predominantly arid and with limited scope for improvement; nevertheless it has a certain quality which supports livestock rearing; one of the main

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problems has been overgrazing. Except in few areas, the condition of range land recovered well during the following years of good rainfall from overgrazing, lack of seeding and the drought of the mid-1970s. However, a failure of "DER" rains in 1979 and delayed "GU" rains in 1980, caused a setback, though relatively minor. There have been two significant changes in the availability of land. First, the National Range Agency had achieved by 1979 a degree of management control of 140 grazing reserves of various types. Second, greater use is being made of the rich but tsetse-infested riverline grazing than before. With the start of the Tsetse Survey and Control Project, the effective use of more land for livestock rearing is increasing.

75. About 60 percent of the population is entirely dependent on livestock, and another 20 percent supplement their incomes from this source. The share of livestock in exports of the country rose from approximately 70 percent to 90 percent during the past decade, despite the fact that the share in investment in this sector has never been a major one and has not risen in relation to earnings in foreign exchange as is evident from table (35).

Table 35: Planned sectora investment, 1968-81

(So.Sh. million)

Plan period	Total investment	Investment on livestock sector	%share
1968-70	705.0	45.9	6.5
1971-73	999.5	59.4	5.9
1974-78	3,863.4	189.5	4.9
1979-81	7,103 6	630.8	8.9

Source: State Planning Commission, Mogadiscio.

76. According to UN Food and Agriculture Organization (FAO) norms, cattle = 0.8 unit of animal, camel = 1.0 unit and sheep and goat = 0.1 unit each. In accordance with the norm, the livestock population of Somalia in 1975 was 11.7 million animal units. The traditional system

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of rearing livestock is mainly composed of namadic pastoralism, significantly by settled farmers and marginally by specialized livestock production by urban dwellers. In addition, the Government has launched specialized livestock enterprises in the form of ranches, specialized dairy farms and cattle-fed lots. The distribution of livestock by different regions of the country based on the 1975 census is shown in table (36) below.

77. The export data reveals that the total value has been on the increase year after year, except in 1976 and 1977. It is possible that some of the cattle included for exports actually came from Kenya and Ethiopia. There is a ban on the export of females and immature males. Saudi Arabia is the main buyer of Somali live animals and accounts buys all camels exported and 80 to 90 percent of cattle, sheep and goats. Qatar and the United Arab Emirates are the other importing countries. North Yemen has also become a new market.

78. It is forecast in the 1982-86 Draft Plan that Somalia will retain its share of exports of cattle, sheep and goats in its traditional markets, but that exports of camels will be rather uncertain since the consumption of camel meat is being progressively replaced by frozen beef and mutton.

79. Incidentally, this should enhance the chances for Somalia to capture demand for beef products which should have a boosting effect on the domestic beef industry. There is a possibility of increasing exports at a modest rate during 1982-86 as the availability of stock increases due to better disease control and other development efforts. It should be possible to increase exports of sheep and goats at an average annual rate of 3 percent, and cattle at 5 percent. This would mean that during 1982-86 period, exports of cattle might go up by 16,000 and those of sheep and goats by 183,000.

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Table 36: Number of livestock by region and type

(human population and livestock in 000)

Region	Area (000 km)	Human population	Camels	Cattle	Sheep	Goats	Total
Northwest	86	698	926	189	3,152	3,978	8,245
Northeast	174	386	600	101	3,132	3,370	7,203
Central	113	397	1,146	588	1,724	4,478	7,906
Shabelle River	82	1,188	991	977	708	2,098	4,774
Juba River	116	651	1,081	1,564	581	902	4,128
Inter-riverines	66	402	554	355	134	466	1,509
Total	637	3,722	5,298	3,744	9,431	15,292	33,765

Source: A report of Livestock Adviser (1981), State Planning Commission, Mogadiscio

80. Most live animals are from the Northwest part of the country, but exports of cattle and camels from the South became significant during 1979. The prices of livestock substantially vary in the North and South.

Domestic consumption

81. Due to the low overall level of production during the 1970s and the effect of the high export values on local prices of animals, domestic per capita consumption of meat has decreased. Furthermore, by the late 1970s, both meat factories were forced to cease operation since purchase prices for animals were too high to enable them to market at competitive prices. In Mogadiscio the price of beef rose from So.Sh. 4.03/kg in 1970 to So.Sh. 15.67/kg in 1978. Internal consumption of meat during 1970-1979 is estimated by the Livestock and Range Sector Study conducted by FAO expert Mr. Willby in March 1981, and is shown in table (37).

82. Besides traditional butcheries and municipal slaughterhouses, the Government has established two meat processing factories with their own slaughterhouses. The Kismayu factory has capacity to slaughter 50 cattle per hour and can process meat of 250 heads per day for canning. Until 1977 it regularly produced canned stewed meat for export to the USSR. During the mid-1970s, the factory also manufacture cooked corned beef for African and Mediterranean markets, and during the 1973 drought period forzen meat was also one of its products. Due to the loss of the USSR market, the factory closed down in 1979. Thereafter, it has been operating intermitently in the face of difficult price competition in the European market for processed meat. The second factory in Mogadiscio - the Sopral meat factory, has not been operating since 1977 because it was unable to market its products at competitive prices. There is a plan to re-open this factory for corned beef for export.

83. Apart from meat, there are very many by-products which could be used in a variety of ways. Bones could be used for bone meal. However, blood and stomach fill are discharged into the sea, and fleshings are not put to much use. The tallow is processed and use is being made of

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Table 37: Estimated Internal Consumption of Meat Animals

('000 heads)

Livestock	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1982	1986
Cattle	262	219	227	279	138	101	146	167	225	233	253	283
Camels	130	132	144	133	129	121	130	135	136	149	162	180
Sheep and Goats	2298	2844	2774	2326	2373	2071	1502	1671	2460	3663	3980	4447

Source: A report by Livestock Adviser (1981), State Planning Commission

offal. The Livestock Development Agency established a cold storage in 1973 at Hargeisa with a capacity of 40 cattle carcasses per day.

84. There is a need for conducting a thorough feasibility study relating to the development of the meat processing industry in the country. The study should examine: (a) the full utilization of by-products through the establishment of viable processing factories; (b) the potential shift in favour of consumption of frozen instead of canned meat; and (c) bilateral agreements with other nations for joint financing, management and marketing of exports. It might then be possible to establish the economic viability of expanding operating meat-processing facilities. It is essential to promote livestock-based industries rather than rely only on export of live animals. This should be among the top priorities during the 1982-86 Development Plan. In this connection, it is understood that the Government is not only keen to ensure the effective functioning of the two meat processing plants, but also intends to invest in a third abattoir and cold storage at Hargeisa. The viability of that project will depend on the price of forzen and canned meat, which it will produce, and the fullest use of by-products.

85. The mortality rate in recent years has been 15 percent for cattle, 12 percent for sheep and goat and 8 percent for camels. With the implementation of the proposed measures, the mortality rate is expected to go down. The other by-products which are available from livestock are hides and skins, bone meal, bone meat and blood meal, fleshing, intestines/bristles, and liver. The purchase of hides and skins made by the Hides and Skins Agency (HASA) during 1973-79 is shown in table (38).

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Table 38: Purchase of hides and skins by HASA

Year	Cattle hides	Camel hides	Sheep and goat skins
1973	-	340	692,310
1974	106,526	10	3,729,942
1975	132,107	21,462	3,846,787
1976	133,405	NA	1,542,119
1977	114,020	20,828	1,812,400
1978	72,217	17,527	2,307,228
1979	67,976	17,500	3,766,490

Source: A report by Livestock Adviser (1981), State Planning Commission, Mogadiscio.

86. It is estimated by HASA that during 1979 the total production of cattle hides was 193,200, camel hides 52,260, and sheep and goat skins 5,440,200. HASA was able to purchase only 35 percent of cattle hides, 33 percent of camel hides, and 69 percent of sheep and goat skins. In theory, of course, HASA is the sole buyer of hides and skins in the country. Certain numbers of skins purchased are supposed to originate in Ethiopia. The purchase prices by HASA have remained the same since 1976, at So.Sh 4/kg for first-grade suspension cattle hides, So.Sh. 32/camel hide and So.Sh. 9/skin. In 1979, the rates were well below world market prices and thus resulted in a decline in the purchase of hides.

87. The camel hides purchased by HASA are 50 percent wet salted, 40 percent dry salted and 10 percent ground dried. Ninety-five percent of cattle hides purchased are dry salted, and 5 percent ground dried, while 80 percent of the sheep and goat skins are suspension dried and 20 percent are ground dried. Ground dried hides and skins are considered to be of low quality. The low price of hides and skins is due to their poor quality resulting from bruising and branding and from poor flaying and handling techniques. During a visit to the government tannery at Kismayu, it was observed that large percentages of the hides and skins had various defects and were of low grade. The factory was operating at low capacity. This was because the export prices of hides and skins had

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fallen so low that income could not cover the cost of production, particularly on account of the increase in the prices of raw materials. Generally, most of the skins and nearly 50 percent of the cattle hides are exported while camel hides are fully locally consumed.

88. There is an urgent need for improving the quality of hides and skins at the branding, flaying and salting stages. Such care can significantly improve export marketability of the hides and skins and at the same time increase profitability in the operation of tanneries.

Tanneries

89. There are seven tanneries, four of which are owned by the Government. They are located in Mogadiscio, Kismayu, Hargeisa and Burao. The three private ones are located in Mogadiscio, Barava and Kismayu. The Kismayu tannery was established in 1977 to process 500 cattle hides per day, to produce wet blue hides for export and sole upper finished leather for local consumption. The meat factorz at Kismayu was to be the main supplier of hides, but since that factory has been operating intermittantly, the supply of hides to the tannery has been inadequate. The tennary has, therefore, had to include the processing of skins. The factory has 120 employees. in 1978 it produced 150,000 wet blue skins, 36,275 wet blue cattle hides, 14,000 sq. ft. of finished upper leather, and 2,270 sq.ft. of sole leather. The Mogadiscio tannery is fairly small and is being expanded to handle 2,800 pieces every day. Hargeisa and Burao tanneries specialize in sheep and goat skins. The capacity of the Hargeisa tannery is for 1.2 million pickled skins per year, which are being exported to East Germany under a bilateral agreement. At times it stopped functioning due to shortages of tanning materials. The factory at Burao has also not been functioning for similar reasons.

90. The fluctuations in the prices of tanned hides and skins in foreign markets and the ever-increasing cost of tanning materials have destabilized the tanning industry in the country. The large number of hides and skins, if exported without tanning, fetch too low a price.

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Fuller development of industrial activities based on hides and skins will provide employment opportunities, increase value added and increase the social/economic benefits to the population. Efforts should, therefore, be made to establish facilities for the full exploitation of hides and skins resources, especially to produce leather and leather products. Basic skills to convert leather to consumer products are available in the country. But there is a great and urgent need for upgrading the skills and capabilities which are necessary for the production of diversified high quality leather and leather goods.

91. There are small establishments making leather shoes. Modern techniques could be introduced through mechnization of some operations in phases. Export of leather goods could be promoted through trade agreements concluded with different countries. Even joint ventures for the manufacture of products according to specifications could be encouraged, particularly to take advantage of the low wage in Somalia which would tend to reduce the cost of production. Some leather products which could be further developed are shoes, garments, sports goods, suitcases, purses, belts, covers for various industrial products and many fancy goods. In fact, an in-depth study should be undertaken with a view to formulating a plan for further development of leather and leather-based products. The feasibility report should, inter alia, cover sources of finance, marketing, phased development programmes, and other aspects.

Domestic milk production and consumption

92. Camel, cattle, sheep and goat milk consitute a major item of food for a significant section of the population of Somalia. The Government has developed a few farms for the production and supply of milk. Dairy farms also purchase milk, process and then supply it, particularly to town dwellers. The available information about milk production is given in table (39).

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Table (39) Estimates of Milk Production

('000 tons)

Source	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Camel, cattle, Sheep and goats breader from farm production	939.0	781.7	910.5	875.6	654.5	970.5	851.2	1136.2	1315.6	1084.4
Afgoi Dairy Farm	-	-	-	-	-	-	110.0	150.0	211.0	245.0
Warmoham Ranch	-	-	-	-	-	-	85.5	117.0	89.0	158.0
Goryoley Farm	-	-	-	-	-	-	-	-	-	12.0
Municipiality Dairy Farm Mogadishu	-	-	-	-	-	-	180.0	95.0	59.0	35.0
Sub total farms	-	-	-	-	-	-	375.0	362.0	359.0	450.0

Source: State Planning Commission, Mogadiscio.

93. The milk factory at Mogadiscio is engaged in the production of pasteurized milk, cheese, cream, butter and ghee. Since 1975, dried skimmed milk, butter oil and water have been used to produce "toned" milk. Pasteurized milk was standardized to 2.8 percent fat. The details of the production of the factory from 1970 to 1979 are shown in table (40).

94. Demand for milk in Mogadiscio during 1979 was estimated at 90,000 liters per day; this is expected to double by 1990. The capacity of the factory, built in 1965 with assistance from the USSR, is 10,000 liters of milk per shift. Daily intakes have ranged from 3,500 liters in 1970 to 11,000 lieters in 1974 and 10,000 liters in 1979. The equipment of the factory is worn out and the supply of milk is inadequate.

95. The production and consumption of milk in the country is significantly dependent upon the rainfall pattern. During the 1970s, according to the 1982-86 Draft Plan, the maximum consumption of milk was 1.31 million tons per year, and it increased to 1.39 million tons in 1981. During the first year of the new Plan, that is in 1982, the requirement is expected to grow to 1.47 million tons, and in 1986 to 1.64 million tons. The corresponding estimate for 1990 stands at 1.83 million tons. The estimates are based on the expected growth in population. Total milk production as estimated in the Somalia National Income Accounts, April 1980, is much higher than the figures mentioned above, which is possibly due to the inclusion of milk produced and consumed by the nomadic population, while the above figures take account of only urban population consumption.

Feed suppliers

96. Higher yields from cattle, sheep and goats depend upon the quality and quantity of feeds. Potential resources of feed with high nutritional value are (a) improved pastures, (b) fodder crops, (c) fodder residues, (d) agro-industrial by-products, (e) feed grains, (f) oil seeds and (g)

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Table 40: Input-output of Mogadiscio milk production

Item	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Raw milk received '000 litres	3500	2200	2700	3230	3980	2258	2204	2612	2543	2525
Average daily in litres	9589	6027	7397	8849	10904	6186	6039	7156	6968	6919
Pastured milk produced '000 litres	-	-	-	-	-	2573	3175	3841	3312	2713
Average daily in litres	-	-	-	-	-	7049	8699	10523	9074	7433
Cheese produced in Kgs.	-	-	-	-	-	16669	13709	14888	9037	9735
Butter/Ghee produced in Kgs.	-	-	-	-	-	1808	309	-	657	1125
Cream produced in Kgs.	-	-	-	-	-	1765	711	3820	1837	3086

Source: Ministry of National Planning, Mogadiscio.

animal by-products. Improved pastures are feasible only in river valleys, but there are other crops, the production of which have more pressing claims. Considerable work still needs to be done for pasture improvement. There are no surplus cereals grown in Somalia. The availability of brans from five maize and sorghum mills, pasta and flour factory at Mogadiscio and rice mill at Shalambot is indicated in table (41).

Table 41: Availability of brans
(tons)year)

Type of bran	Output of brans	
	1977	1979/80
Wheat	3,650	6,000
Maize and sorghum	4,170	9,900
Rice	400	900
Total	8,220	16,800

Source: Ministry of National Planning, Directorate of Statistics, Mogadiscio.

97. The quantity of available brans during 1982-86 will depend upon further increase in the consumption of cereals. There are many small-scale oil mills operating in the private sector. Information about their crushing capacity and actual quantity of oil cake produced is not readily available. There is a vegetable oil plant operated by the Ministry of Industry. It has capacity to crush 20 tons of oil seeds per day. This plant produces oil cake suitable for animal feeds. The smaller establishments are planned to be brought together into a co-operative society. The known availability of cakes from different types of oil seeds is as per table (42) below.

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Table 42: Production of oil cake
(tons/year)

Type of cake	Actual production	1979/80 projected
Sesame	1,875	5,500
Cotton seed	110	1,500
Groundnut	12	600
Total	1,997	7,600

Source: Draft Five-Year Development Plan, State Planning Commission, Mogadiscio.

98. Molasses constitutes another important ingredient of cattle feed. The Jowhar Sugar Factory produces 12,500 tons of milasses per year which is used for the manufacture of alcohol. The Juba Sugar Factory was expected to produce 20,000 tons of molasses in 1980 and 50,000 tons by 1983. Its production of molasses is for export and for cattle feed. The by-products from the meat processing industry such as: 110 tons of meat and boen meal from the Kismayu Meat Factory, 600 tons of crushed bones from the Mogadiscio Slaughter House and from SOPRAL and meat, bone and blood meals from the Mogadiscio Plant. These are of immense use in the production of poultry feed. There is considerable scope to expand the availability of fish as raw material for the production of poultry feed.

99. The feed plant at Mogadiscio, which makes available mixed feeds for government poultry and dairy farms, has experienced decline in its production from 1,500 tons to 1,200 tons over the last three years (poultry feed 950 tons and cattle feed 250 tons). There is an element of subsidy to the tune of 25 percent in the pricing of the feeds. Expansion of poultry production is planned during 1982-86, but the expansion will depend largely upon the availability of feedstuffs supply. Import of maize for about 40 percent of the feed produced is also an issue requiring consideration.

100. In short, raw materials available for feeds during 1977 were around 8,200 tons of bran, 2,000 tons of oilseed cakes, 100 tons of meat and bone meal, 600 tons of crushed bones and 12,500 tons of

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molasses. In 1983, the requirements are expected to be at least 17,000 tons of bran, 7,600 tons of oilseed cakes and 50,000 tons of milasses. Locally-produced feeds are more suitable for cattle than they are for poultry. For developing a satisfactory quality of poultry feed, food grains will have to be imported. As long as the indigenous production of grains does not provide a surplus for poultry feed production, there does not seem to be much potential in expanding poultry production. The concentrates for cattle feed are not in great demand. Therefore, if new feed mills are set up, they will operate only part time. Thorough investigations are therefore necessary before additional investments are made in this industry during the next plan period. The Plan includes a project for a feed mill and feed lots with a total investment of So.Sh. 4.4 million, of which the equivalent of So.Sh. 2.7 million will be needed in the form of foreign exchange. It includes development of optimum systems for the utilization of crop residues and by-products and to determine the economic feasibility of intensive feeding systems for beef production. On completion, the project would have a capacity of 4,800 tons of mixed feed.

101. The Plan also provides for a number of additional projects. For development of poultry, for example, a modern poultry farm is to be established near Mogadiscio with a total investment of So.Sh. 24.93 million to produce 10 million eggs per year. Another poultry farm at Hargeisa will be established at an estimated cost of So.Sh. 5.0 million, of which So.Sh. 4.2 million will be in foreign exchange. The farm should reach the target supply of 5 million eggs in 1984. The poultry farm near Mogadiscio is to be expanded to produce 5 million eggs per annum. The cost of the expansion is estimated at So.Sh. 8.4 million, of which So.Sh. 2.5 million will be in foreign exchange to be met from the committed USAID grant.

102. Another important addition is the extension of the ROMSOMA project at a total expenditure of So.Sh. 406.98 million, of which So.Sh. 172.54 will be in foreign exchange. A commercial credit of So.Sh. 100 million

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is already provided in the contract with Romagrimex. At full development the project will produce 20,000 fattened cattle, 90,000 fattened sheep, 2.5 million broilers and 30 million eggs annually. For the implementation of all these proposals (for supply of broilers and eggs), substantial expansion in the field of poultry feed manufacture will be necessary during the 1982-86 period.

103. The 1982-86 Plan lays enough emphasis on dairy farming. The Afgoi Dairy Farm modernization will involve an estimated expenditure of So.Sh. 21.6 million, of which So.Sh. 9.1 million will be in foreign exchange. Among other thins, it is expected to result in increased milk production of 1.0 million liters annually. The Benadir Dairy Project will integrate two existing municipal dairy units in Mogadiscio with two forage farms near Afgoi and a ranch at Warmahun. It is expected to supply 20,000 liters of milk daily to the Mogadiscio Milk Factory. The Gisoma project involves an expenditure of So.Sh. 517 million. It will also result in a complex near Afgoi which will annually produce 38,000 fattened cattle, 48,000 fattened sheep and 5,000 tons of processed milk, and will have a farm of 4,000 hectares. With the assistance of the EEC, it is also proposed to stimulate milk production by small farmers in the private sector in an area within 100 km of the Mogadiscio Milk Factory.

104. The Somalian National Income Accounts Report (IBRD) of April 1980 provides useful information about trends in milk production in Somalia during the 1970s. Table (43) shows milk production from 1970 to 1979.

105. The per capita supply of milk is substantial in the country. It was also gathered that at times full quantity is not milked because of lack of demand, particularly during the rainy seasons and in rural areas. There are many limitations in converting surplus quantities into products which could be transported and preserved over a period of time. Firstly, most of the surplus is in the possession on nomads who move from place to place, and who do not have interest in a system of milk collection and distribution; secondly, because of their locations

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Table 43: Milk production in Somalia

Year	Milk production in millions of litres				Price/litre in Somalian shillings	Value of output in millions of Somalian shillings	
	Cattle	Sheep and goat	Camel	Total		Current prices	1977 prices
1970	186.6	372.0	290.5	849.1	0.23	195.3	458.5
1971	190.4	379.6	296.4	866.4	0.23	199.3	467.8
1972	199.4	387.4	172.9	754.7	0.26	196.2	407.5
1973	135.2	254.8	182.4	572.4	0.29	166.0	209.1
1974	134.8	254.1	356.6	745.5	0.23	246.0	302.6
1975	180.2	408.7	328.3	917.2	0.43	394.4	495.3
1976	189.2	390.2	312.5	891.9	0.49	437.0	481.6
1977	208.0	425.2	328.3	961.5	0.54	519.2	519.2
1978	224.8	463.5	344.7	1,033.0	0.60	619.8	557.8
1979	244.0	505.2	361.9	1,111.1	0.67	744.4	600.0

Source: Somalia National Income Accounts, April 1980, IBRD

in different areas, even if processing facilities were developed in specific areas, it is not certain that the supplies of surplus milk would be made available; and thirdly, surpluses are only seasonal and thus the enterprises based on those might not be able to function all the year round. Before investment decisions are made, it is necessary to embark first upon a detailed feasibility study.

Fisheries resources

106. It is estimated that moderate concentrations of fish and shellfish occur along the Somali Coast and that the greatest abundance is found in the Gulf of Aden. The estimates of potential annual catches for the major fish groups are given in table (44).

Table 44: Estimates of Fish Resources - Annual potentials

Large pelagic species	8,000 tons
Small pelagic species	100,000 tons
Large demersal species	40,000 tons
Shark and rays	30,000 tons
Spiny lobsters	2,000 tons
Shrimps	400 tons
Mesoplagic species	Large but not known
Tartles	Not known
Cephalopods	Not known

Source: Ministry of Fisheries, Mogadiscio.

107. Hitherto, fishing has not figured predominately in the economy of Somalia. Production has ranged from 4,000 to 11,000 tons per annum, and the value of fish has been less than 2 percent of GNP. Only about 3 percent of the population is estimated to derive at least part of their livelihood from fishing and related activities. The remoteness and isolation of many of the fishing villages, lack of transportation and marketing facilities have inhibited development.

108. Fishing has, however, potential social and economic value of great importance. Export earnings could be greatly increased and a considerable number of new employment opportunities created through the development of fisheries. In addition to the four main coastal towns (Mogadiscio, Berbera, Kismayu and Merca), there are 28 small coastal towns and fishing villages with an estimated total population of 90,000, many of whom depend upon fishing as their main source of income.

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They are organized in 18 co-operative societies. Fifteen thousand ex-nomads were settled in these towns and villages, of whom 13,700 in four settlements are fishermen, boat repairers, mechanics, and fish processing operators. Fish production in the country is given in table (45).

Table 45: Fish Production in Somalia
(Figures in tons)

Area	1974	1975	1976	1977	1978	Remarks
North Coast	1,947	3,500	3,040	3,355	1,778	The weights
East Coast	2,000	4,400	4,000	1,923	1,770	mentioned are of
Off Shore	2,050	2,450	4,350	4,550	225	landed whole fish
Total	5,997	10,350	11,390	9,828	3,803	

Source: Ministry of Fisheries, Mogadiscio.

109. There was a marked decline in fish production in 1978 due to (a) dissolution of Russian partnership in 1977 and departure of the Russian fleet, and (b) the decline in in-shore artisanal catches, because of lack of proper maintenance facilities which led to more and more boats becoming unservicable. Many fishermen reverted to their old "houris" (2000 boats) which, too, were at the end of their working life. Prospects for the immediate future look somewhat bleak. In the coastal fisheries, it is estimated that 3,000 full-time and 6,000 part-time fishermen are employed. The landings of the fishery sectors from 1974 to 1980 (estimated for 1979 and 1980) are given in table (46).

Table 46: Fish Production - by type of landings
(Figures in tons)

Landing	1974	1975	1976	1977	1978	1979	1980
Artisanal	3,947	7,900	7,040	5,278	3,584	4,000	4,000
Industrial Fish	1,350	1,500	3,400	3,400	235	3,080	8,530
Crustaceans	680	950	950	1,150	20	800	1,800

Source: Draft Five-Year Development Plan, Ministry of National Planning, Mogadiscio, August 1981.

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110. Table (46) shows that there was increased production between 1974 and 1976. After the withdrawal o. the Russian fleet in 1977, production declined. The decline since 1977 in the artisanal sector is more marked. The fleet of artisanal vessels of 600 became significantly inoperative and by 1979 only 30 percent of such vessels were functioning. The decline was mainly the result of inadequate maintenance and lack of spare parts. However, there has recently been improvement with the granting of licenses to freign firms, such as the Italian Trawling Company.

Fish processing factory performance

111. Kismayu Factory (being recommissioned by FAO) was established with American assistance. It has a 250 ton capacity freezing chamber of cold-store and small flake ice plant. Fish and lobsters have to be transported through launch service from Chiamboni and Kulmis. The trawler fleet will also land some catches; thus the increase in landings will necessitate the expansion of cold storage capacity. Financial assistance has been committed by West Germany. The factory did not function from 1972 to 1979. Now it is processing fish of co-operative societies. New motor and sail-boats are to be supplied, and servicing and marketing co-operative societies will be established, and the freezing capacity will be expanded. At present, substantial quantities of fish are being sold in a dried form.

112. The Laskoreh tuna canning factory is government owned and was built in 1966-1970 with USSR assistance. It has a fleet of local "Huries", two freezer tunnels of 800 ton capacity, a cold store, three canning lines with a canmaking plant, a fish meal and oil extraction plant, boilers and diesel electric power supply. Except for the fish meal plant, which is currently out of order, the rest of the factory is mostly operating at only 25 percent of the installed capacity. This is mainly due to in-adequate supplies of fish.

113. Fish canneries at Candala and Habo, which were established before the Second World War, have now government and Italian interests. They can fish of high quality by simple methods. Each factory can process

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30 tons of fish per day and the chilled storage holds 15 tons for one day. The supply of fish is not enough to permit full utilisation of capacities. Neither factory worked during 1977-1978, and only the Habo factory functioned during the 1978-79 season. A jetty of 600 meters is needed at Candala to enable the larger fishing vessels to land their catches, and thereby increase the supply.

114. The Bolimog fish freezing and cold storage factory was set up in 1966 by the Somali Development Bank. It was closed in 1978 for major overhaul. It has four blast freezer tunnels, each with a capacity of 12.5 tons to fish per day, a 2,500 ton capacity cold store, a fish meal plant (to use 25 tons of fresh fish and offal per day) and a centrefugal type fish oil recovery plant. The factory has a capacity to handle 10,000 tons of frozen fish and produce about 1,000 tons of fish meal and oil annually. However, since 1971 frozen fish production has not gone beyond 1,000 tons. Raw material supplies by small boats are inadequate. A suitable jetty to enable 30-metre motor vessels to land fish for Bolimog and Habo factories could improve the situation.

115. To sum up, all the four North Coast factories face a common problem of shortages of raw material supplies, the solution of which would brighten their prospects for the future. The small size of the Cadala factory and its isolated location might result in its ultimate closure. Port facilities and other infrastructure also need much improvement to meet the requirements of the fish industry. Improvement in marketing facilities is essential. Intergrated fishing and fish processing will go a long way to ensure the development of a successful fish industry. The available information covering exports is given in table (47).

116. The domestic market for fish is very small, mainly because the local per capita consumption of fish is rather low. Somalia cosumed 0.4 kg of fish compared with 9.9 kg in Tanzania, 11.4 kg in Uganda, 16 kg in Zambia and 20.8 kg in Sri Lanka. This is mainly because meat is preferred to fish, and the availability of fish-except at some places

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Table 47: Export of fish and fish preparation

(Quantity in tons, value in Somalian shillings)

Item of export	1972		1973		1974		1975		1976		1977	
	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value	Quan.	Value
Fish & fish Bep.	1343M	5198	1796	13461	2002	15242	2392	11583	3250	15616	5072	24478
Canned Tuna									324.9	3284.9		
Frozen Fish									138.6	1374.9	3778.8	1054.2
Dried Fish									1358.4	3395.3	678.8	154.9
Frozen Lobsters									1428.0	7560.4		
Total									3249.9	15615.5		
Frozen Lobsters											515.3	2718.2

Source: 1977 Statistical Abstracts.

in the coastal areas - is largely limited, particularly due to lack of inland transportation facilities.

117. During the recent past, certain progress in fish catches through the use of trawlers has been made. At present, the licensed vessels are mostly Italian. Seven companies are operating, and under their terms of license, 20 percent of the catch is to be paid to the Somali Government in cash or kind. Until now much of the catch has been exported. Apart from the licensed vessels, the Somali Government own a fleet of nine Yugoslavia-built 23-meter trawlers and two Australian 28-meter shrimp trawlers. Other 66-meter vessels are on order by the Soamli-Italian SOMEC joint venture. The nationally-owned vessels have not yet contributed significantly to total production. (Three of the Yugoslav vessels have recently been included in a joint venture with a Greek company).

Constraints

118. The inadequacy of the input supply system, the inaccessability of coastal fishermen to local markets, the general lack of fisheries infrastructure, and the severe dearth of skilled manpower in the essential managerial and technical cadres, are the main constraints to production in the coastal fisheries. With regard to the development of deep-sea fisheries. With regard to the development of deep-sea fisheries, the main constraints are (a) the lack of qualified personnel, (b) the acute shortage of berthing space for trawlers and other infra-structure facilities, (c) the inadquacy of on-shore fish freezing cold storage and ice plant to facilitate the transshipment of catches intended for export, and (d) the lack of vessel maintenance facilities.

Prospects

119. Prospects will depend upon the establishment of a reliable system for the supply of boats and financial credit assistance to fishermen. Controlled distribution of fishing gear (nets, floats, cardage, hooks, etc.) should also be supplemented by encouraging a revival of private trade at wholesale and retail levels. Urgent government action is needed

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to provide essential linking communications and transportation infrastructure to serve the coastal fishing industry, including coastal seaborne transport as well as all-weather feeder roads and suitable vehicles. The old fleet of some 200 wooden canoes has to be replaced. These craft are still the main means of production for the coastal fishing industry. Consideration should be given urgently to the manufacture of some of the equipment required in the fish industry, and could,however, become difficult to achieve if the proposed programmes are not implemented in such a co-ordinated manner as schenduled. However, the production targets for crustaceans is rather high compared to known potentials.

120. It is estimated that around 66.7 percent of the future catcn could be exported. This would mean that 12,000 tons of fish during 1982 and 1983, 14,000 tons in 1984, 16,000 tons in 1985 and 18,000 tons in 1966 would be exported. Efforts should be made to sell around 25 percent of this in the form of fish preparations. In other words, the targets set for fish preparations for exports should be 3,000 tons during 1982 and 1983, 3,500 tons in 1984, 4,000 tons in 1985 and 4,500 tons during 1986. In addition, part of fomestic consumption would also be in the form of fish preparations. This could open up substantial scope for expansion of the fish processing industry, including full use of the already established capacities. For this purpose, private and foreign investment should be encouraged. This will also provide raw material for the production of fish meal, which will be of significant importance in the development of the poultry industry. Consideration should also be given to the utilization of sea shells and other articles for the production of souvenirs and other items for export. Other opportunities offered by fisheries development are such associated industrial activities as manufacture, repair and maintenance of boats, and fishnets.

Forestry resources

121. About 13.8 percent of the total land area ia covered by forests, of which 2.5 million hectares is described as dense savannah and 0.1 million hectares as degraded high forest. Forestry resources are the

main source of fuel to the Somali people. The appropriate development of forestry resources is essential to the maintenance of a proper balance between the economic requirements and long-term environmental considerations. The overall strategy during the 1980s is to expand forests in the country.

Production aspects

122. The main forest products are fuel wood for cooking (mainly in rural areas), wood for charcoal production for cooking (mainly in urban areas), round wood, small-size poles, brush bundles for house and hut construction, frankincense, myrrh, gum arabic, and a variety of nuts, seeds and medicinal plants. Charcoal sales increased from 50,000 tons in 1976 to around 80,000 tons in 1980. On the other hand, exports of three valuable gums fell from 1,590 tons in 1976 to only 394 tons in 1978. This decline in gum exports was mainly due to deterioration of trees as a result of past over-exploitation and lack of regeneration.

123. Nearly 320 skilled workers and technically trained persons are employed on a permanent basis in institutionalized activities in the forestry sector, and another 5,000 casual workers are engaged in charcoal and fuel wood production and marketing, tree planting and fixing sand dunes, forest reserve protection, and other activities. Lack of funds and skilled manpower are the main problems which have constrained the development of forestry resources during the recent years. The wide dispersion of forests has also had an adverse effect on development. The important native trees include Boswellia in the Northeast producing frankincense, Comniphora in the Southwest producing myrrh and Cordeauxia edulis in the Central region producing "Yicib" nuts. The estimated areas of major forest by type are as shown in table (43) below.

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Table 48: Major forestries
(hectares)

Junipers	40,000
Riverine	60,000
Dense savannah	2,500,000
Bush and scrub	6,197,000
Trial plantations and shelter	3,000
Total	8,800,00

Source: Paper prepared for Least Developed Countries Conference, 1981.

124. The 1982-86 Draft Plan includes projects for improving charcoal production methods and improving franincense and myrrh production, etc. Use can be made of "Galol" trees in the North for making mats, tropes, roofing material and animal feed. A study should be conducted to determine the viability of exploiting mahagony for veneer and sawn timber and export market avenues.

Mineral resources

125. The development of mineral resources and their full industrial utilization are long-term propositions in all developing countries. To accelerate the tempo and bring mineral resources to a stage where they could be used as industrial raw materials or profitable export commodities, policy measures will have to be implemented in: (a) expediting the process of prospecting, ascertaining the reserves, determining the quantity and properties of known minerals; (b) organizing power and water requirements for the extraction of minerals; and (c) the development of appropriate transport system to facilitate the economic exploitation of minerals. The mobilization of domestic and foreign funds for financing purchases of machinery and equipment is also central to the development and exploitation of mineral resources.

126. Presently, the main activities in the minerals sector are the continued survey and evaluation of metallic and non-metallic mineral occurrances and an intensification of oil and natural gas exploration. The mapping, together with geological, geophysical geochemical prospecting, has revealed a considerable volume of useful data.

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Mineral wealth of Somalia

127. The efforts of the Government are directed towards the establishment of the necessary basis for the development of mineral resources of the country. The programme of mineral and geological research is generally confined to prospecting for mineral deposits, development of water resources, and exploration for oil. The most favourable provinces for the discovery of mineral deposits are: the areas of the basement crystalline rocks in the North and the Bur areas in the South. These two regions are the main targets for the prospecting of metallic ores and are both equally promising from the standpoint of mineral possibilities.

128. The Bur area is characterized by a flat and featureless plain which is covered with a thick mantle of alluvium and dense vegetation. No outcrops of the basement are known with the exception of rare granitic monadrocks, locally named Burs. This physical peculiarity poses great difficulties for geological survey as well as mineral investigation. In such conditions, a wide use of geophysical prospecting and drilling methods are believed to be the most effective means of investigation. Among the minerals reported to occur in the Bur areas are iron ore, thorium-uranium, pyrite, chalcopyrite, molibdinite, silver (geochemical), tin (geochemical), chromium, nickel, vermiculites, copper (geochemical), marble and phosphorous-bearing rocks. The thorium-uranium deposits and the iron ore deposits are the most important mineral findings of the area.

129. The basement rocks in the northern regions are situated in well-exposed areas and the outcrops are open to direct observations. The area is predominantly mountainous and is as such difficult to reach. Almost all known mineral occurrances in the North are confined to the basement rock. In addition to the various mineral occurrances already known, a wide geochemical survey recently conducted on the basement rocks of the northern regions has shown about 40 geochemical anomalies, many of which warrant further evaluation and follow-up. The geochemical anomalies are represented by nickel, chromium, zinc, lead, mangánese and

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copper. The mineral occurrances confined to the basement rocks of the northern regions are represented by tin, quartz, beryl, colombite-tantalits, mica, copper mineral, barytes, flurites, galena, manganese, monazite, keonite, talc, molybdanite, varmiculite and rutile. The basement crystalline rocks offer also wide possibilities of finding out large deposits on building raw materials such as feldspars, nefeline synite, kaolin, granite and marbles, etc. Many parts of Somalia are covered with tertiary formations mostly represented by limestone and sandstone, which constitute high-grade building stone. The potential of the sedimentary rocks can be summarized as follows:

130. Oil - A thick sequence of sedimentary rocks of marine faces is spread over large areas of the country. It is common belief that favourable geological and structural conditions for the accumulation of hydrocabons within the underground sedimentary formations exist. This belief is validly suuported by the discovery of oil and gas, although not in commercial quantities, in some exploratory well drilled by oil companies .

131. Gypsum - Gypsum-anhydrite deposits are known over vast areas of the country, but the most important deposit occurs at Berbera on the coast of the Gulf of Aden. This deposit has been thoroughly explored and the high grade gypsum-anhydrite reserves have been estimated to be over 7 million tons.

132. Iron ore - Although up to the present time no economic evaluation has been made, there are several indications that iron ore deposits of economic importance occur in the sedimentary formations. One of the most promising occurrances of hamatite-limonite is associated with the jesomma sandstone in the cnetral part of Somalia.

133. Uranium - Uranium ore (carnotite) is the most important mineral discovered so far within the sedimentary rocks in the central part of Somalia (Mudug provice). The radioactive areas were discovered as a result of geological investigations carried out by a project established

through co-operation between the Somali Government and the United Nations Development Programme. It has been ascertained that concentrations of secondary urabium mineral occur at a number of locations. The mineral is located in lime clay, marl, bentonite, gypsum and sand, and immediately above the fluctuating water table surface.

134. Other minerals - It is well known from previous invstigations that polymetallic mineralization (lead, zinc, copper) are present in several localities in the sedimentary rocks of the northern regions.

135. Oil Shele - Deposits of oil shele were located in the northern part of the country. The deposits are associated with Jurassic formations and crop out mainly in: Dibundules, Suria Malable and Bihin Goha. The reserves of oil shele at the surface are estimated at billions of tons.

136. Titanoferous sand - A large deposit of titanoferous black sand occurs at the mouth of the Guiba River on the coast of the Indian Ocean. This deposit has been partially investigated and it offers good prospects for the extraction of considerable amounts of titanium which are contained in titaniferous magnetite ilminite and rutile. As a result of preliminary evaluation of the deposit, the reserves have been estimated at 10 million tons TiO_2 (as ilminite, rutile and other minerals) with 1.41 percent of average TiO_2 content in the sands.

137. Sulphur - A small deposit of sulphur occurs about two miles west of Berbera. It is not considered of economic interest.

Follow-up of mineral occurrances

138. Tin (cassiterite) - Tin-bearing negmatite and quartz are known to occur in the eastern part of the basement at Majayahan. During the colonial period the tin was mined by an Italian company until the breakout of the Second World War at which time the mine was abandoned. The Somali Government concluded an agreement with the Bulgarian Government to re-activate the old mines and to carry out further investigations. A new project has

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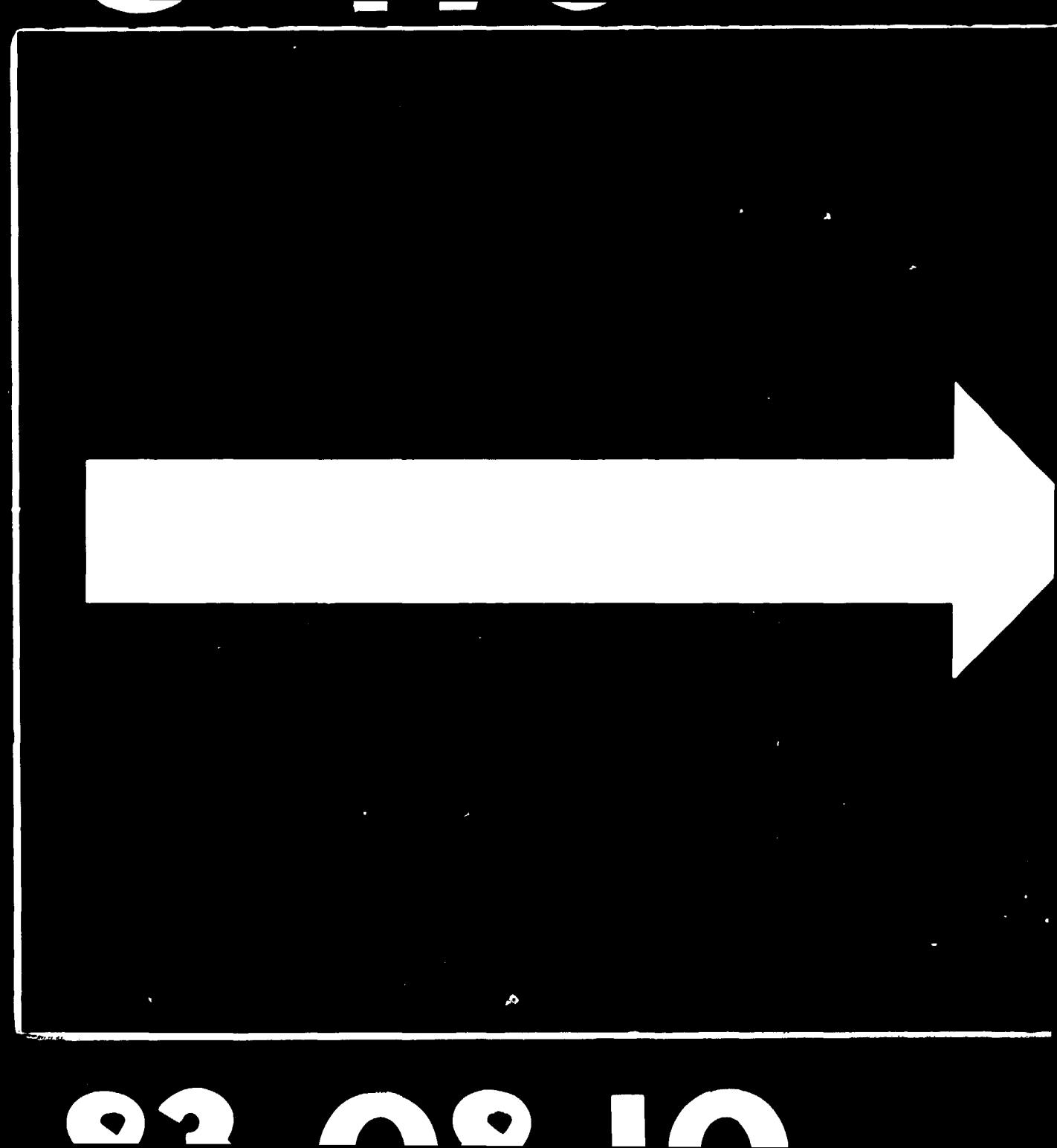

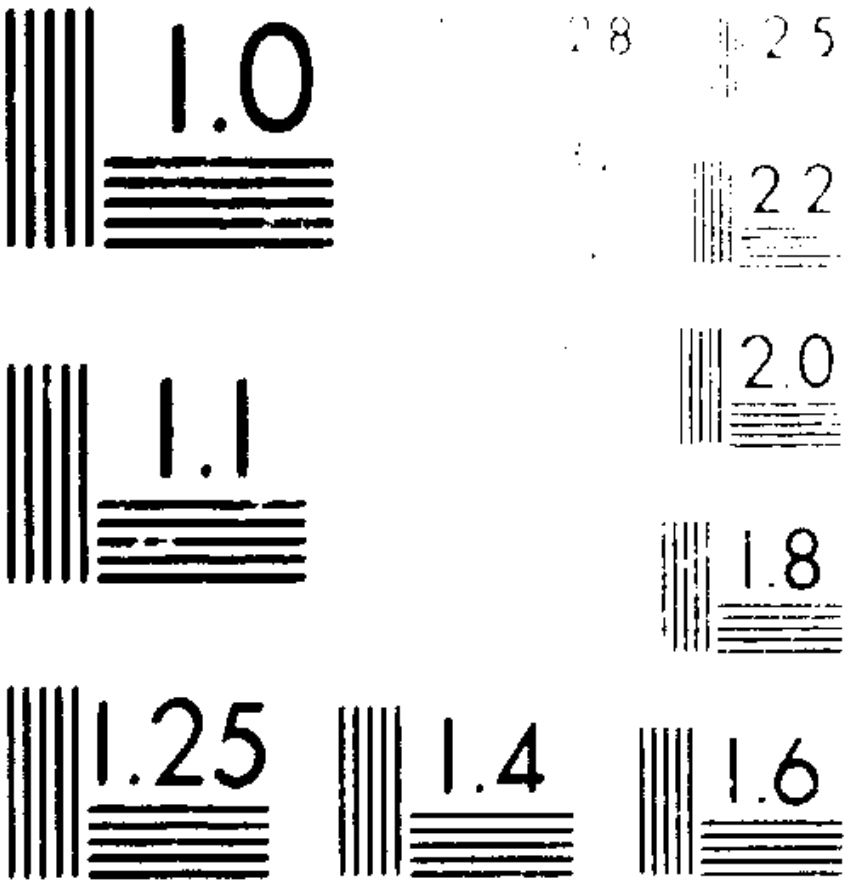
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been established in the Majayahan-Dalan area for the exploration and pilot exploitation of the tin deposit through bilateral co-operation.

139. Piezo-electric quartz - Recent surveys located high-grade piezo-quartz in several parts of the northern regions.

140. Kynite - Small deopsits of kynite were already known at Damal, Mirid and Dangal in the North. New kynite discoveries have been made recently and are thought to be of economic interest. The newly discovered kynite-bearing rocks are distributed appropriately over an area of 350 sq.km. in the basement rocks. The kynite content of the various occurrences ranges between 30 and 55 percent. The kynite of Damas alone was estimated at 400,000 tons, the average content of kynite being 33 to 34 percent.

141. Gold - Quartz veins are widespread on Arabsiyo Ged Debts area in the vicinity of Hargeisa town. In some vein samples, gold mineralization has been observed.

142. Lead-barite - Lead-barite mineralization occurs in the basement and in sedimentary rocks. Polymite lic (lead, zinc and copper) mineralization is believed to be connected with post-poleogene rift faulting in the North. Particular attention is being paid to the exploration and exploitation of non-metallic raw materials. In this respect, priority is given to exploration for asbestos, feldspars, kaoline and glass sand. Ornamental stones such as agate, marble and granite are also sought.

143. Iron ore - Deposits are situated in the central portion of the Bur uplift, between the towns of Baidao, Minsor and Bur Asaba. The area is prodominantly flat flying terrain with an average elevation of 350-400 meters. There is a ferrogeneous quartzite containing mesnotite, nesmatite and quartz. The grade of the ore is between 35 and 40 percent Fe, and SiO_2 content is 42 - 55 percent. Total reserves are preliminarily estimated at about 170 million tons of iron ore.

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144. The black sands of Kismayu - A titanium-rock black sand deposit is situated along the coast of the Indian Ocean from the mouth of the Juba River up to 10-15 km northeastward. The width of the mineralized area is 4 - 7 kms. According to a preliminary calculation, the reserves of TiO_2 were estimated at 9.5 million tons. There are real possibilities of increasing the reserve when new mineralized zones are discovered. Because of its proximity to Kismayu port, the deposit is in a favourable geographical position.

145. Uranium - During the second phase of the UNDP project, airborne and ground surveys detected anomalies covering 170 sq.km. in a belt extending 240 km from El Bur through Dusa Mareb to Galinsor. The anomalies were checked, and the check showed that uranium mineralization was represented. The uranium vandium deposit was established in a sequence of continental and lagonal sediments. On account of lack of adequate technical means to drill in hard rocks and to dig pits below the groundwater table, some areas have not been completely explored, and that is why the evaluation of the prospects is not yet final. In the Wabo area, the reserve is about 5,500 tons at an average grade of 0.08 percent U_3O_8 and average ore thickness of 2.2 meters and about 4,400 tons at an average grade of 0.1 percent U_3O_8 and an average thickness of 2.45 meters. The total porbable reserves of uranium with an average content of 0.08 percent U_3O_8 in all Mudugh are about 20,000 tons.

146. Gypsum/anhydrite - The gypsum/anhydrite deposits are located at Suria Malable about 16 km from Berbera. The deposit is one of the world's largest, with about 7 million tons of high grade gypsum and anhydrite reserves, including additional exposure of gypsum and anhydrite within 30-50 km from Berbera, the gypsum anhydrite deposits amount to some 30 million tons.

147. Sepiolite - A big deposit of sepiolite has been discovered at El Bur, situated about 400 km north of Mogadiscio. This deposit is one of the largest known. The reserves of the sopiolite deposit is estimated at several million tons.

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148. The tin project in the Bosaco area of Northeast Somalia, which produced 134 tons of tin concentrate in 1979, was abandoned with the departure of the Bulgarians. There are traces of such rare metals as rubidium, tantalum and cesium at Bosaso, but the mineral content is low. The National Geological Survey is currently engaged in mapping and mineral exploratory investigation in the Bur area, where deposits of lead and gold have been reported. Coal deposits in the Erigavo area of Northern Somalia are also being assessed. An iron ore project is being investigated in the Bur area of the Bay region. There are some 33 million tons of 38-40 percent iron content.

149. Another study revealed deposits of gypsum/anhydrite, peizo-electric quartz, manganese, uranium-vanadium ilmenite zircon, tin and thorium. There are also traces of gold, copper, lead-zinc, molybdenite, beryllium, tantal-niobium, sulphur, feldspar, mica, asbestos and talc. More recently, occurrences of kaolin, bentonite clay, coal and chromium and nickel were located.

150. The Government is encouraging companies to intensify their oil and natural gas investigations. This has led to an increase in the number of foreign firms undertaking petroleum exploration. The Government has also obtained a credit of $6 million from the International Development Association (IDA) of the World Bank to partially finance this exploration.

151. The Somali Government and the Arab Mining Company have signed a joint venture agreement and formed a jointly-owned company which has been licensed to prospect for uranium over an area of 57,000 sq.km. The results of the work done have been encouraging. This work will continue during the next Plan period.

152. The Five-Year Development Plan (1982-86) proposes, inter alia, to continue work on such projects as iron ore and mapping, the Galguduud uranium project and the petroleum exploration project, for which funding is assured at least for the early part of the Plan period. A glass and

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ceramics project is also proposed in this Plan. This is a follow-up of the Bulgarian bilateral aid programme of 1976-78 under which kaolin, feldspar, glass sands, limestone and clay in the Baidoa and Hargeisa areas were investigated. This work should be co-ordinated between the Ministry of Minerals and Water Resources and the Ministry of Industry.

Prospects for industrial use of minerals

153. It is obvious from the foregoing that even though there is good potential for mineral wealth in Somalia, yet it will take quite some time before a feasible programme of their industrial exploitation can be formulated. However, some useful information regarding certain minerals which have potential has to be brought to light. Feldspar deposits exist in considerable quantities and could be utilized for developing ceramics and glass industries. Similarly, extensive industrial possibilities exist for quartz. Asbestos is needed for the asbestos cement factory and also has scope for exports. Kaolin is another mineral of extensive use, particularly in the ceramics industry and as a filler and refractorz material. Bentonite is a useful plasticizer in ceramics, refining of oils and wines and for drilling operations. Vermiculite is used as an insulating material. Talc is widely used for electro-porcelain and refractories and as a filler. Mica is highly demanded by the electrical industry for high-temperature refractory products. Manufacturing activities covering crucibles, refractories, pencils, and electrodes utilize graphite.

154. Occurrences of limestone are well spread out in the country and are more concentrated in Berbera, Hargeisa, Mogadiscio and Merca. Limestone is extensively used for making building blocks and quick lime (calcium oxide). It can also be sued in the production of calcium chloride and calcium phosphate, both used as fertilizers. It can, in addition, be converted to precipitated chalk for extensive use as a filler for many products and as a foundation for face powders, toothpaste, and other products. The Hargeisa-Berbera area is also known for significant deposits of gypsum. In the Suria-Malable area southeast of Berbera, gypsum of anhydrite grade is available. No deep mining is required to extract the reserves. There is an export market for gypsum in lump and crushed forms.

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In the country it is already being used as a building material in place of clay bricks. When heated to 110 to 120 degrees Centigrade gypsum yields hmihy :ate, which can serve as cement or wall platering material, and it is also used as a setting agent in the manufacture of Portland cement to the extent of 5 percent. Gypsum is also the basis for plaster of Paris, and in the process of manufacture, it yields sulphur as a by-product. Crushed gypsum can be used as a fertilizer and also as a filler in paints, paper, pharmaceuticals and insecticide formulation industries. It is also a soil reconditioner and can desalinize saline soils, and it is further used for the manufacture of plaster boards, sheets and ceiling panels in combination with wood fibre, animal hair and bagasse. It is also used as a moulding plaster in foundry and ceramics industries. Mixed with sapiolite, it forms a heat-insulating plaster. Sapiolite deposits are located in the El Bur area and can be used in making flower vases, jugs, ashtrays, tobacco pipes, cigarette holders and artistic wares. It is a soft refractory material used for lining fireplaces.

155. Common salt (sodium chloride) is an important industrial raw material in addition to its use for human consumption. It is used in soap making, the curing of hides and skins, fish curing and preservation. Through an electrolytic process salt can produce caustic soda, with chlorine as a by-product. Caustic soda can be converted into soda ash used in soap and glass industries. Chlorine is the basis for hydrochloric acid and in combination with naphtha, a by-product of petroleum refineries, it produces polyvinyl chloride (PVC) and nylon filaments, both of which are important industrial raw materials. In combination with benzene it produces benzene hexachloride (BHC), a highly useful insecticide. Common salt is an important product from sea water. There is even scope for recovery of magnesium and other salts from the brine after crystallization of common salt. Feasibility studies should be undertaken and a report prepared for developing a complex of industries based on common salt.

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Energy resources

156. The main characteristics of electricity generation stations and distribution network in Somalia have been determined by the level and cencentration of demand. Long distance and low demands make high tension interconnecting grid systems between towns and regions un-economical. Consequently, a significant number of industrial plants and public undertakings generate their own power and electricity, sometimes with great difficulty in fuel supply, particularly in remote locations with bad road connections. There is therefore a need for overcoming the situation in the organization, standardization of equipment and training in order to meet the needs for skilled labour.

157. In the short- and medium-term, the possibilities of using alternative sources of energy, e.g. solar and windpower (which were very important in Somalia before 1960) need to be investigated. With the development of low-cost technologies, these cources of power could provide an ideal base for the development of small and isolated communities both along the coastline and in the interior.

158. There are three major problems regarding evergy supplies in Somalia: the diminishing availability of fuel wood; the high cost of expanding or developing new soureces of energy; and low energy efficiency. As a result of population growth, serious shortages of fuel wood have emerged. Consequently, rurral women spend more and more time on fuel collection instead of carrying out more productive activities. Fuel wood and charcoal shortages in the vicinity of major cities have led to progresseiv price increases for these items. It is advisable to popularize, wherever possible, the use of biomass for the generation of biogas, which can be utilized as a fuel and for lighting.

159. Somalia is at present totally dependent on imported oil for the generation of electricity as motive power. Production of petroleum products was initiated at a refinery which was started at the end of 1979 in Mogadiscio as a joint venture with Iraq. Its design limits it to refining only very light, crude oil supplied from the Bsrah oilfields of

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Iraq. However, the Iran-Iraq war has interrupted the supply and the refinery has therefore ceased production. The production programme of the refinery included the supply of 200,000 tons of residual fuel oil. The potential of the country in the near future is to consume only 70,000 tons for the production of urea and generation of power in Mogadiscio. The modified refinery is scheduled to re-open in the near future with the possibility of processing a wider range of available crude oils. The residual fuel oil thus will remain a source of energy throughout the 1980s.

160. Electrical power is still produced mainly by less economical diesel plants (which were installed by various institutions) using scarce and expensive diesel oil. Only the larger 5MW diesel generating sets recently erected at the New Jesira Power Station in Mogadiscio use the cheaper and abundant heavy fuel oil. More economical boilers and steam turbines are only used by the SNAI and Juba Sugar mills, which burn production waste in the form of bagasse. After extensive studies a decision was taken to interconnect the Central Power Station at Mogadiscio, with a total installed capacity of 12.5 MW, with the new Jesira Plant and to build transmission lines to Afgoi and Balad located away at 30 kms and 40 kms respectively. Thus for the first time in Somalia there will be a nucleus of a national electricity transmission grid. Total national installed electricity generating capacity is given in table (49) below.

Table 49: Installed generating capacity in kw

Year	Mogadiscio	Total national	Mogadiscio as % of national
1970	4,900	10,430	47%
1973	11,300	20,478	55%
1980	35,500	48,806	81%

Source: Draft Five-Year Development Plan, 1982-86, Planning Commission, Mogadiscio, August 1981.

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161. The maximum output of the Central Power Station when water cooling towers are clean is 10,800 kw, and when dirty 8,400 kw, against the installed capacity of 12.5 mw. For the years 1965 to 1978, electric energy sales in Mogadiscio increased at an average rate of 10.2 percent per annum. For the years 1965-74, per capita energy sales increased at an average rate of 2.6 percent and for the years 1974-78 the average rate of increase was 6.9 percent per annum. The composition of the energy sales in Mogadiscio by type of tariff is shown in table (50).

Table 50: Annual average rate of sales in percentage

Type of tariff	1965-1974	1974-1978
Private lighting	4.0	12.6
Private motive power	8.5	3.6
Street lighting	9.5	8.1
Public entities lighting (Government, embassis, municpalities)	21.0	8.7
Public entities motive power	10.0	12.0

Source: Draft Five-Year Development Plan, State Planning Commission, Mogadiscio, August 1981.

162. The average growth of public electricity sales for motive power diminished because some industrial users installed their own electricity-generating facilities. The annual load factor of Mogadiscio is at present 51 percent of the total generating capacity. Losses in the system during 1979 were estimated to be 24 percent of total energy sales.

163. The development of hydroelectric power will offer important improvements in the energy supply. The Fanole hydroelectric power station on the Juba River, with an installed capacity of 5 MW, will soon be operating. The major energy breakthrouth will be the construction of the Bardhere Dam on the Juba River. When that is commissioned in 1987, the plant will have an installed generating capacity of 100 MW and will supply power to Kismayu and Mogadiscio. These projects will make a substantial contribution to the

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economy, mainly to irrigated agriculture and industries such as fertilizer and cement manufacturing plants. The Bardhere dam project, which requires an estimated total investment of about $640 million, will be a major project in the 1980s. This project will be able to meet the anticipated energy requirements of the area.

164. In the field of renewable energy, some initial steps were taken by the installation of a salt water distillation plant. Plans are also under way to erect electricity-generating windmills and sun pumps. Technologies that make direct use of the elements - sun, wind and water - may become important sources of energy, particularly in rural areas. But in most cases large-scale, economical use of these technologies is not feasible at present. A study is under way which will examine the advantages of sun, wind and diesel water pumping. Positive steps should also be taken for the use of bio-mass for bio-gas generation.

165. The objectives of the proposed programme for 1982-86, according to the 1982-86 Draft Plan, are:

- To modify the refinery so that it can use crude oils available in the market;
- To produce heavy fuel oil which is also suitable for the production of ammonia;
- To step up the use of heavy fuel oil wherever diesel generating sets are used;
- To develop markets for the surplus quantity of heavy fuel oil;
- To carefully balance utilization of hydroelectric power with existing diesel and future steam generation;
- To plan electric tariff in a way which will stimulate the productive use of electricity in agriculture, industry, mining and quarrying;
- To rehabilitate existing diesel generators in regional urban centres and rural areas in the national electricity grid;
- To develop pilot and demonstration equipment using renewable energy.

.../..

166. The proposed financial outlay for the sector during 1982-86 is So.Sh. 1.0 billion, of which So.Sh. 978 million will be capital expenditure and So.Sh. 32 million for recurring expenditure. The programme includes new projects for the power station at Mogadiscio, extension of the Jesira power station, establishment of a Jesira steam power station, overhead high tension lines at Bardhere-Mogadiscio and extension of the transmission and distribution system in Mogadiscio.

167. The on-going project of electrification of five regional centres has also been included in the programme. This will cover Hargeisa, Berbera, Burao, Kismayo and Baidoa. This programme is expected to stimulate significantly developments, particularly in the fields of industry and agriculture. During the period, 38 sun pumps are proposed to be installed in settlement camps and other rural areas in addition to four windmill sets on an experimental basis.

Human resources

168. Table (51) below shows estimates of population and the labour force:

Table 51: Estimate of population and labour force
(in 000)

	1982	1986	1990
Total pupulation	5,606	6,285	7,046
Below 15 years	2,523	2,828	3,171
15-64 years	2,971	3,331	3,734
Over 64 years	112	126	141
Estimated labour force	2,265	2,539	2,818
Non-agriculture empl	527	629	747

Source: Draft Five-Year Development Plan, 1982-86

169. The labour force forms about 40 percent of the population estimates. It is estimated that non-agriculture employment will be 9.4 percent of the population in 1982, 10.0 percent in 1986, and 10.6 percent by 1990. Employment outside the agricultural sector will account for 23.3 percent of the labour force in 1982, 24.8 percent by 1986, and 26.5 percent by 1990.

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The estimated number of self-employed persons in non-agricultural activities would be about 421,000 for 1982, rising to 534,000 in 1986 and further increasing to 669,000 in 1990. Table (52) below shows estimated employment for the years 1982, 1986 and 1990.

Table 52: Estimated employment by industry group

	1982	1986	1990
Mining and quarrying	754	915	1,245
Manufacturing	21,983	28,935	43,651
Electricity, gas, water	4,190	6,356	11,078
Construction	11,515	15,110	22,711
Commerce, restaurants, hotels	50,572	58,272	73,215
Transport and communication	33,277	40,970	56,795
Finance and business services	3,282	4,408	6,806
Public administration and community services	66,109	97,811	166,681
Total	191,682	252,777	382,182

Source: Draft Five-Year Development Plan (1982-86)

170. The data in the above table cover both public and private sectors. The rate of growth of employment is expected to be 8.5 percent in 1982, 10.0 percent in 1986 and 13.5 percent in 1990. Employment estimates in the public and private sectors, are given in table (53) below:

Table 53: Estimated employment by sector

	1978 (actual)	1982	1986	1990
Public	73,703	126,975	192,610	335,705
Private	75,546	83,328	88,376	95,586
Total	149,249	210,303	280,986	431,291

Source: Draft Five-Year Development Plan, 1982-86.

171. The Plan provides for increasing employment by 61,054 from 1978 to 1982, by 70,683 from 1982 to 1986, and by 150,305 from 1986 to 1990. This means that the rate of increase in employment by 1982 over 1978 would be 40 percent, 33.7 percent in 1986 over 1982 and again will rise to 53.5 percent in 1990 over 1986. This shows that the tempo of economic activity during 1986-1990 will be higher due, inter alia, to the

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availability of more infrastructure facilities. The manpower requirements by level of education have been estimated as indicated in table (54) below.

Table 54: Manpower requirements by level of education

Level of education	1982	1986	1990
University	6,562	9,434	20,560
Secondary	6,528	9,374	20,419
Intermediate	22,533	31,816	68,905
Primary and below	17,026	20,059	40,421
Total	52,649	70,683	150,305

Source: Draft Five-Year Development Plan, Ministry of National Planning, Mogadiscio.

172. The manpower requirements by occupation groups for 1986 and 1990 are separately given in table (55) and (56), according to educattional level. During 1979-80, the number of students in elementary education was 131,047, intermediate education 140,082, and secondary education 24,373. During the year, there were 15 technical/vocational schools holding 134 classes, and enrollment stood at 5,197, of which 1,473 were females. There are now 17 technical schools, as well as seven vocational schools offering two-year courses with an annual intake of 60 to 120 students.

173. The Somali National University was expanded in the 1970s by the addition of the faculties of chemistry, engineering, geology and veterinary sciences. In 1978-79 in all nine facultires, there were 2,338 students, and about 3,000 in 1980. Annual admissions are 700 students, of whom about 12 percent are females. Up to 1979, about 2,000 students had graduated from the university. It is proposed to add a new faculty of marine science in 1982. Most members of the teaching staff are expatriates.

174. The 1982-86 Education Plan includes improvements in practical skills, diversification of post-primary education by expansion of technical and vocational training so as to cope with the critical demand for middle-level manpower, and expansion of facilities for higher education and

.../..

Table 55: Manpower requirements by occupation groups, 1986

Occupation group	University	Educational Secondary	Intermediate level	Primary and low	Total
Professional	9,213	-	-	-	9,213
Technicians	-	8,007	24,557	-	32,564
Administrative, managerial and executive workers	221	1,288	12	[illegible]	1,521
Clerical workers and related supervisors	-	72	6,288	1337	7,697
Sales Workers	-	7	312	1714	2,033
Service Workers	-	-	-	2581	2,581
Agricultural Workers	-	-	[illegible]	[illegible] 258	[illegible] 258
Production and skilled workers	-	-	647	36801	37,448
Labourers	-	-	-	2747	2,747
Total	9,434	9,374	31,816	15438	96,062

Source: Draft Five-Year Development Plan, 1982-86.

Table 56: Manpower requirements by occupation groups, 1990

Occupation Group	University	Secondary	Intermediate	Primary and low	Total
Professional	20,082	–	–	–	20,082
Technicians	–	17,451	53,516	–	70,967
Administrative, Managerial and executive workers	478	2,801	17	–	3,296
Clerical workers and related supervisors		157	13,557	2,537	16,251
Sales workers	–	10	565	2,448	3,023
Service workers	–	–	–	1,088	1,088
Agriculture workers	–	–	–	556	556
Production and skilled workers	–	–	1,248	26,984	28,232
Labourers	–	–	–	2,842	2,842
Total	20,560	20,419	68,903	36,455	156,337

Source: Draft Five-Year Development Plan, 1982-86.

research. It is planned that 70 percent of primary school leavers will be directed to technical and vocational education to meet the needs for technicians, skilled and semi-skilled workers, in key sectors of the economy. A target of 59,100 students in those categories by 1986 has been fixed.

175. Table (57) shows the current number of local employees and expatriates in both the public and private sectors. The table shows that expatriates formed only 0.6 percent of total employment or 730 out of 129,249 persons employed in the public and private sectors during 1978-79. The expatirates have been engaged mainly in administration and management. It is the policy of the Government to replace expatriates gradually.

Financial resources for industry

176. The development of natural resources and their exploitation as raw materials for the endegeous industrialization of Somalia depend upon the availability of both domestic and external financial resources. The Government's actual revenue and expenditures, and financial policies are major determinants of domestic savings and inflows of external funds, some of which could be channelled into industrial investments.

177. It is, therefore, necessary to attempt to paint a general picture of government revenue and expenditure, which constitutes a broad financial framework within which Somalia has to undertake the financing of industrial and other operations. Indeed this overall picture would gauge Somalia's ability to mobilize both domestic and foreign capital for financing industrial development. In table (58) below, a summary of the financial operations of the central government is given for the years 1975-79.

Table 57: Number of expatriate workers by occupation groups, 1978-79 and their share

Occupation group	Public sector			Private sector			Total		
	Employees	Expatriates	Per cent	Employees	Expatriates	Per cent	Employees	Expatriates	Per cent
Professionals	2,296	423	18.0	45	13	28.9	2,341	426	18.2
Sub-professionals and technical workers	18,493	33	0.2	503	34	6.8	18,996	67	0.4
Administrative workers, managers and executives	2,428	17	0.7	260	42	16.2	2,688	59	2.2
Others	50,486	2	0.004	54,738	176	0.32	105,224	178	0.2
Total	73,703	465	0.6	55,546	265	0.5	129,249	730	0.6

Source: Country Programme for the 1980s. Least Developed Countries, January 1981.

Table 58: Central Government Operations, 1975-79
(So.Sh. millions)

	1975	1976	1977	1978	1979
Ordinary Expenditure 1/	566.2	649.3	769.6	1353.0	1603.0
Total Domestic Revenue	628.4	670.7	843.4	1394.2	1506.0
Current Balance	62.2	21.4	73.8	41.2	(-)97.0
Development Expenditure 2/	113.3	165.4	211.4	196.5	265.0
Extraordinary Expenditures	—	—	278.5	541.4	802.3
Overall Deficit	—	—	416.1	696.7	1164.3
External Capital + Budgetary Grants (Net)	—	—	622.3	307.2	353.0
Domestic (Net)	-188.8	359.0	-206.2	389.5	811.3
Banking System (Net)	-(189.7)	(362.0)	-(222.2)	(408.9)	(920.3)
Other	(0.9)	-(3.6)	(16.0)	-(19.4)	-(109.0)
Medorandum Items					
Growth rate of -					
Current Revenue	13.1	6.7	25.7	65.3	8.0
Ordinary Expenditure	11.4	14.7	18.5	75.8	18.5
Development Expenditure	(-)7.8	46.0	27.8	(-)7.0	34.7

Source: IBRD Report No. 3284-SO

178. The above table shows that since 1978, the budgetary position of the Somali government deteriorated because of:

- the growth of domestic revenue was less than that of recurrent expenditure;
- recurrent expenditure, especially since 1978 rose rapidly - it grew by 108 percent during the period 1977-79;
- development expenditure (expenditure not included in the investment programme and current expenditure of certain Ministeries), also grew rapidly since 1978;
- inflows of external assistance slowed down, and could therefore, not offset increased deficit.

— Not available

1/ Excluding foreign budgetary Grants

2/ Extraordinary expenditure comprises development expenditures not included in the Investment Program and current expenditures of certain Ministries. No breakdown of extraordinary expenditure is available.

.../..

179. In the circumstances, the Government resorted to the Central Bank credit to finance the deficit. The sharp rise of the credit from So.Sh. 409 million in 1978 to So.Sh. 920 million in 1979, led to inflation which reached 70 percent by the end of 1980.

180. On the other hand revenue increased by 24.5 percent during 1975-79. Taking inflation into account, the actual increase was 10 percent. Total revenue was 18.9 percent of GDP in 1978. The contribution from public enterprises to total revenue was 16 percent while import duties provided 40 percent and taxes on goods and services brought in 23 percent of GDP.

181. On the other hand, the share of General Public Services and Defence in recurrent expenditure rose from 59 to 71 percent between 1975 and 1979. Table (59) below gives a break down in percentages of recurrent expenditure for the period 1975-1979.

Table 59: Functional Classification of Ordinary Expenditure 1975-79
(In Percentages)

	1975	1976	1977	1978	1979
(a) General Public Services	33.9	31.7	32.4	35.1 1/	31.8 2/
(b) Defence	25.6	25.5	25.9	37.1	39.6
Total (a) + (b)	(59.5)	(57.2)	58.3	(72.2)	(71.4)
(c) Social Services	22.5	24.7	25.8	16.7	18.2
(d) Economic Service	17.9	18.1	13.0	11.0	10.5

Source: IBRD Report No. 3284 - SO of 16 March 1981.

182. It is noticeable from the above table that the share of social and economic services in ordinary expenditure dropped from year to year; (it was 18 percent in 1975 compared with 11 percent in 1979). The wages and salaries claimed 49 percent of the total ordinary expenditure. As a consequence, maintenance of existing capital stock was neglected.

1/ Preliminary Actual

2/ Budget

.../..

183. Somali's published balance of payments figures are inadequate in very many respect. On the basis of data on external reserves Somalia had a comfortable balance of payments position up to the beginning of 1979. Total reserves increased steadily from $31 million in 1972 to $158 million at the end of the first quarter of 1979. Since then, a sharp detrioration has set in and by July 1980, reserves had dropped to $41 million. Ever since 1972 the seriosly unfavorable export performance was hidden by large amounts of exceptional capital inflows (foreign cash support for drought relief and the conflict with Ethiopia). Rising import prices were more than compensated by even more steeply rising export prices. The terms of trade improved considerably between 1972 and 1978, owing to the high prices which Arab countris were and are prepared to pay for live animals. Exports, however, decreased in volume due to increase of domestic consumption faster than the increase in production of livestock, fall in banana production and loss of meat market in the USSR. In 1978, exports of live animals accounted for 83 percent of the total in value and 90 percent were sold to Saudi Arabia.

184. The inflow of official capital in the form of loan disbursements and grants has fluctuated widely in recent years. It was particularly high in 1975 and 1977 when Somalia received substantial amounts of grants for drought relief and for the war. Even though there was an increase in grant receipts in 1979 related to the refugee problem, the total level of official capital inflow was considerably lower in 1978 and 1979 than in 1977. This reflects the cessation of Soviet assistance, the decline in Arab aid since 1977 and, undoubtedly, the increasing difficulties in project implementation.

185. On the basis of incomplete information, IMF staff estimate Somali's current account deficit was at about $206 million in 1979, compared to the amount of recorded merchandise exports of probably not much more than $106 million. (The figures above only apply to officially recorded balance of payment movements); there are also substantial unrecorded private trade and capital movements, such as large private imports financed by migrants' earnings and other balances held abroad through the franco valuta market.

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186. According to the World Bank Report 3284-SO total external public debt disbursed amounted to $546 million at the end of 1979, while $360 million were still undisbursed. New commitments increased rapidly from $88 million in 1974 to $253 million in 1977, after which year they dropped to $93 million in 1979. The terms of public borrowing have been very favorable. For all loan commitments in the ten-year period 1970-1979, the average terms were 1.5 percent interest, 28 years maturity, including 8 years grace. Yet, the debt service burden is likely to become very heavy in the near future, because the amount of public debt is quite large in relation to GDP and recorded exports. Total outstanding and disbursed debt at the end of 1978, was equivalent to 42 percent of GDP and 4 times the size of export earnings.

187. Debt service payments to the USSR were due to resume in 1981. Together with other obligations, service payments on existing debt will amount to $57 million in 1983, as shown in table (60) below, or some 24 percent of expected export earnings (see table 59). Of the total of almost US $250 million in debt service obligations falling due between 1981 and 1985, 55.6 percent is owed to Arab oil countries and agencies, 38.1 percent to Socialist countries, 3.4 percent to non-Arab multilateral institutions and only 2.9 percent to traditional Paris Club members.

Table 60: Debt Service Obligations on Public Debt Outstanding as of End 1979, 1981-1985
(US $ million)

	Arab oil countries and agencies	Socialist countries	Non-Arab multilaterals	Other bilateral	Total
1981	15.6	20.3	1.3	1.4	38.6
1982	18.0	19.2	1.5	1.5	40.6
1983	35.1	18.7	1.7	1.5	57.0
1984	34.4	18.4	1.9	1.5	56.2
1985	35.5	18.5	2.1	1.3	57.4

Source: IBRD Report No. 3284-SO, page 24

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188. The Somali economy is in a precarious condition and if the present situation trends are not reversed, the total oil bill plus debt services will be greater that export earnings within the next few years.

Because of the deficient data base, the lack of growth-oriented strategy, and the absence of policies to capture potentially available foreign exchange (i.e migrant workers' remittances), it is difficult to determine with any degree of precision how large the capital requirements will be. The World Bank has tried as per Table (61) below, to make a projection, from the 1979 base, of capital requirements for the years 1981-1985. The assumptions are an increase in real terms of both imports and exports of 1 to 2 percent per annum, no further decrease in external resources, a normal pattern of disbursements of the present pipeline and the maintenance, in real terms, of grants from traditional sources. In these circumstances, and assuming continued low level of economic activity and no change in policies, the gap to be filled from disbursements of new loans or grants would increase from some $155 million in 1981 to almost $380 million in 1985. As private capital will probably be insignificant, all of this would have to be in the form of public loans and grants.

Table 61: Estimates of Capital Requirements, 1979-85 (Small)
in US $ million)

	1979	1980	1981	1983	1985
Exports of goods and services	155	175	195	235	285
Imports of goods and services	-413	-450	-500	-605	-730
Current balance	-258	-275	-305	-370	-445
Amortization public debt	-1	-15	-30	-45	-50
Use of Reserve	99	-	-	-	-
Gross Capital Requirements	160	290	335	415	495
Short-term capital	14	-	-	-	-
Disbursements from existing public loans	87	115	110	35	20
Disbursements from traditional grant sources	59	65	70	80	95
Gap 1/ to be filled by disbursements from new loans or grants	-	110	155	300	380

1/ Before servicing the new loans.

.../..

189. Because of the inadquate data on Government financial transactions, it is not possible to make any dedium-term projections for the budgetary situation. It is, however, imperative that past trends, especially those experienced since 1978, must be arrested. Since, in the short run, the scope for increased revenue is limited, major policy reforms are required for containing expansionary demand by pruning ordinary expenditure and shifting scarce resources away from consumption and towards productive investment. It is absolutely necessary to make better allocation of resources by according highest priorities to projects yielding quick returns in income and foreign exchange. Reduction in expenditure and increase in revenue are key factors to the mobilization of State resources for industry, etc.

190. In Chapter IV, mention is made of some policies which should be introduced in order to ameliorate the economic and financial situation. In addition to those, the following measures are considered to be paramount to the mobilization of both domestic and foreign capital to finance industrial development.

- Continuous and systematic identification, formulation and appraisal of specific industrial projects and programmes which are capable of attracting both domestic and foreign capital;
- establishment of new, and/or strengthening of existing public financial institutions, industrial corporations or agencies which would effectively perform the major functions of industrial promoters, financiers and managers. This would entail the strengthening of the organization, management and operations of individual institutions or corporations, and the co-ordination of their functions in such a way as would make them reinforce and sustain one another, and where possible, encouragement of industrial and financial joint ventures between State corporations and private domestic and foreign investors;
- establishment of machineries and adoption of methods and techniques for stimulating savings for subsequent financing of industrial projects, programmes and enterprises;

.../..

- tapping and channelling local savings into industrial projects by promotional and supporting small-scale industrial establishments and industrial estates, etc;

191. These and other policy measures such as those providing various kinds of incentives, could attract capital for financing industrialization[1/]. It is not possible to estimate precisely the total amount required.

It is at any rate feld that the foregoing general description and analysis of the financial situation indicates (albeit in broad terms) Somalia's financial stringency and requirements.

1/ On November 27, 1981 West Germany and Somalia concluded an agreement on investment projection, and the agreement guarantees the free transfer of capital and profits and contains clauses on arbitration in cases of disputes, and provides regulations in case of expropriatic 1.

CHAPTER IV

Indutrial policies, strategies and institutional infrastructure

Policies and Strategies

192. The following major policy measures initiated during the 1979-81 period are proposed for continuation in 1982-86:

- accelerating the tempo for industrial production;
- developing to the maximum possible extent of local production to cope with domestic market demand for manufactured goods;
- developing import substitution industries;
- developing export markets for Somali manufactured goods in order not only to promote profitability but also to narrow the gap between imports and exports, thereby improving the trade balance;
- increasing the utilization of industrial installed capacity of existing plants in order to improve their efficiency and profitability;
- maximizing the use of indigenous resources, particularly those relating to agro-based and building material industries; and
- developing and improving institutions to ensure the implementation of plans, policies, strategies, and a steady growth of skills required for industrial expansion.

193. The industrial development programme for 1982-86 and the policies and strategies proposed for its implementation will have to take cognizance of the following limitations:

- No major discoveries of commercially exploitable mineral resources including coal, oil and iron ore, have yet been made;
- Dependence on imported raw materials and fuels is an importart handicap to the promotion of industrial activities, unless ways and means for earning foreign exchange through increased exports are devised in order to pay for the imports;
- The tight foreign exchange position of the country calls for strict scrutiny of projects involving such large requirements to ensure that they self-support themselves to a great extent;

.../..

- The small size of the domestic market is a constraint on industrial development; industrial policies for the promotion of export markets will have to be formulated and implemented;
- Manufacturing plants should be located in places where there are alsready inftracstructure facilities;
- Agricultural surpluses for industrial uses are too limited;
- There is a scarcity of management personnel in the country, particularly specialization in the industrial field. Policies should be pursued for counteracting the critical shortage of manpower, especially in the managerial, technical engineering and scientific cadres.

194. Some additional goals set for the sector include:

- The capital-output ratio in the public sector to be decreased;
- Productivity in the public industrial subsector measured as a ratio of gross output and number of persons employed to be increased;
- Efficiency and productivity of existing industrial enterprises to be increased, and plants which are in a poor state to be rehabilitated;
- Feasibility studies of potential large-scale projects which are of critical importance to the economy of the country to be undertaken;
- Measures to be adopted for strengthening small-scale and handicraft industries, both for domestic and export markets;
- Vocational and management training facilities to be expanded in order to develop skills and up-grade capabilities.

195. The policies and strategies for the implementation of the next plan, therefore, require adequate capital to enable public sector manufacturing enterprises and other enterprises to finance and maintain smooth production on sustained basis. Private industries will require favourable short-term credit for their manufacturing activities. There already is provision for the improvement in licensing procedures, and both public and private industries will enjoy a simplified import licensing procedure to ensure

.../..

that they obtain their raw materials and other inputs regularly. Price control of manufactured goods will also be reviewed regularly in order to taken into account inflationary increases in the price of inputs.

196. New industrial projects in the public sector will have to include donors' commitments to provide where necessary not only capital but also plant management and training of local personnel. In the public sector, priority is given to on-going projects and new ones for which feasibility studies have been completed. It is well known that large investments were made in the past in a number of plants, some of which never started production, and others suspended production or are continuing only intermittently as a result of problems which were never forseen in the absence of prior studies. 1/

197. In order to motivate and encourage entrepreneurs to invest in industry, and to establish well-distributed enterprises through the country at various growth centers, it is necessary that the government formulate policies to support private enterprises and joint ventures. The policies should particularly: 1) Give assurances to private entrepreneurs to participate in the development of specific industrial sectors and sub-sectors alongside the public industrial sector; 2) Provide such incentives as would encourage the importation of capital by Somalians living abroad, particularly in the form of imports of machinery and raw materials; 3) Encouraging industrial joint ventures between foreign investors and Somali entrepreneurs involving the transfer of both technical skills and capital with adequate insentives; 4) provide infrastructure and other facilities such as the identification of growth centers, development of industrial estates and industrial areas, training programmes for up-grading skills and provision of industrial information; 5) Grant tax, import and export exemptions during the early stages of operation as incentives for promoting exports; and 6) formulate programmes for the development of entrepreneurship.

1/ The war with Ethiopia, drought, termination of economic co-operation with the USSR, shortage of foreign exchange to purchase spare parts, raw materials and other inputs are among the causes of low productivity and losses.

198. The activities of the Ministry of Industry should be expanded significantly to organize the small-scale industrial sector. This would include making feasible project proposals for different regions, provision of industrial information, approval of project reports, development and provision of facilities in the form of infrastructure and inputs, provision of common service facilities, organizing an industrial extension service and government support through its purchase of certain products from indigenous manufacturers.

New policies

199. The poor economic performance and the critical shortage of foreign reserves make it imperative for Somalia to adopt new policies and strategies or at least to revamp, where possible, existing ones. In addition, the African Ministers of Industry adopted targets[1/] and approved a number of programmes which will necessitate a reformulation of policies and strategies in order to achieve the objectives of the Lagos Plan of Action and the aspirations which motivated the declaration of the 1980s as the Industrial Development Decade for Africa.

200. The failure of export earnings to match the import bill call for a review of the external trade policies. If, for instance, the present trends were allowed to continue, the oil import bill and total debt service obligations on existing debt alone will be just as high as total recorded merchandise exports by 1983, if not earlier. Thus even to sustain a stagnating economy, Somalia's future capital requirements will be large.[2/]

Required Policy Reform

201. Therefore policies and strategies should be formulated and implemented in order to put the Somali economy out of the current stagnation in production and exports while, at the same time, restoring external and internal equilibrium. The present financial imbalances are symptomatic of a level of spending

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1/ Report of the Sixth Conference of African Ministers of Industry, E/ECA)CM. 8/2 of 2 December 1981.

2/ Page 24, IBRD Report No. 3284-50 of March 16, 1981.

that has become too high in relation to resources available. The policy measures should, in general aim at reducing the proportion of total the income spent on consumption while increasing that of savings. It is essential that monetary and fiscal measures to restore equilibrium are simultaneously reinforced with policies that stimulate growth, because it is less painful to adjust aggregate demand to resources available in a growing economy than it is in stagnating one.

202. The required policy measures may be grouped under three broad categories. The first category should deal with measures aimed at short-term restoration of financial equilibrium, while the second category should concentrate on measures designed to stimulate growth in the economy. The third category should be concerned with the difficult and time consuming task of improving the tools and capacity for economic management.

Policy Measures for Restoring Short-term Equilibrium

203. The strategy for achieving short-term financial equilibrium should place the greatest emphasis on fiscal restraint and adjustment of product and factor prices, with a view to shifting resources toward export and import substitution sectors. In Somalia, especially since 1978, expnasionary fiscal policies have been a major factor for the financial predicament. In order to preclude excessive Government recourse to the banking system, it is necessary to mobilize additional resources and, more important, to limit Government expenditures more closely to available resources. Success in the mobilization of additional resources will call for a review of taxation legislation.

204. Government has sufficient latitude for rectifying the fiscal imbalance in respect of Government expenditure. It will be necessary to formulate and implement policies which are based on allocation of scarce financial resources between productive and not so productive activities. Policies should aim at reorienting expenditure away from general administration and towards growth-oriented activities. Efforts should be concentrated on development expenditure on projects yielding quick returns.

205. The strategy for restoring short-term equilibrium should, at the same time, aim at improving the balance of payments position. This could be achieved through import substitution, by raising substantially producer

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prices of domestically consumed agriculture products such as maize, sorghum, sugar, cotton, etc. Appropriate pricing and tariff policies should also be adopted to reduce the demand for non-essential imports. Also, efforts for the promotion of exports should be aimed at providing substantial price incentives and assured supply of inputs for banana production. The volume of livestock exports could also be increased through provision of complementary services, such as improved health services and control facilties at the shipping points.

Policy Measures to Stimulate Growth

206. It should be emphasized that measures for restoring short-term equilibrium and those for stimulating growth are clearly inter-related in various ways. For instance, unless measures to stimulate growth of the economy are taken, it will be difficult to restore financial equilibrium. Again, failure to redress domestic overspending will have an adverse effect on the balance of payments, while an unsatisfactory export performance will limit resources for imports, and therefore affect growth and revenue.

The Exchange Rate

207. Pricing and tariff policies are powerful tools for stimulating exports and allocating resources in the most desirable direction. However, these policies are intimately linked with exchange rate policies. These are factors which show that the Somali currency is overvalued. In such a situation exporters are underpaid for their output, and official imports are cheaper than they would normally be. The relatively low price of imported capital goods encourages a high capital intensiveness in investments; and use of local inputs is discouraged because imported inputs are relatively cheap. In a general way, the overvalued exchange rate is thus contributing to the present scarcity of foreign exchange. In these circumstances, it would appear appropriate to adjust the official exchange rate to bring it more in line with that prevailing in the free market. Before that step is taken, the Government should consider linkages with other instruments of economic policy, particularly tariffs, export taxes and quantitative import restrictions.

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208. In view of the urgent need to improve the balance of payments, it is necessary to formulate and implement policies and strategies reversing the declining trend in exports. These policies will include identifying agricultural, manufactured, and other products for which the country has good prospects for exports; analyzing the main economic and institutional constraints (including the exchange rate), and to the expansion of existing and potential exports; examining the effects of alternative incentive systems for expansion of exports; and making recommendations for changes in existing policies, procedures, and/or institutions which would facilitate the increased export of existing and new items of export.

Other Policy Measures to Stimulate Growth

209. Policy measures to stimulate growth should begin by concentrating on the agriculture sector (comprising livestock, crop and fisheries sub-sectors). A recent World Bank report (Agricultural Sector Review) makes a comprehensive review of the agriculture sector and recommendations for inducing growth in this sector. According to the review although Somalia is not richly endowed with natural resources, there is considerable scope for making better use of land, water, and fisheries resources to improve production, provide employment and establish the basis for long-term growth of the agriculture sector.

Policy Measures to Enhance the Absoptive Capacity

210. To be effective, measures to restore short-term equilibrium and to stimulate growth have to be reinforced by measures to improve the tools and capacity for economic management. These measures should begin by improving the lot of the civil service, where demoralization is a serious problem which has now become the main constraint to development in general and severely impairs the Government's economic management capacity. A thorough overhaul of public employment and remuneration policies is a prerequisite to reviving the morale of the civil service. In order to improve absorptive capacity and management in general, the public cervice should be revitalized through s meaningful upward adjustment of Government

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salaries. Incentives for good performance should also be provided through a system of promotion on the basis of merit.[1/]

Institutional infrastructure for industrial development

Public Enterprises

211. Public enterprises were established mainly: to undertake major investments for which private investors did not have funds; and establish public ownership of large productive undertakings in order to channel profits and ivestments into socially required activities. In mid-1979 there were 43 commercial public enterprises of which 12 were in the industrial sector. A list of public commercial enterprises is following:

Inudstrial and commercial public enterprises
(as of 1 June 1979)

Parent Ministry	Enterprises
Agriculture	National Banana Board (NBB) Agricultural Development Corporation (ADC) ONAT (Tractor and Farm Machinery Rental) Somali - Libyan Agricultural Development Company (Somalia 51, Libya 49)
Fisheries and Marine Transport	Los Koreh Fish Factory SOMAL - FISH National Shipping Agency Somali Ports Authority Somali Shipping Line (Somalia 51, Libya 49) Somali Forwarding Agency

1/ There is also a need to introduce such policy measures as will improve the economic management machinery. A pre-requisite for this is the development of an adequate data base and proper management tools. Basic information on national aggregates, balance of payments, Government financial operations, and prices are urgently required.

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Parent Ministry	Enterprise
Industry	Cigarettes and Matches Factory
	Mogadiscio Milk Factory
	Sugar Factory (SNAI)
	SOMALTEX
	Kismayu Meat Factory
	Oil Mill Factory
	INCAS (Italy 49; NBB 36; SDB 15)
	ITOP Fruit Processing 1/
	Hides and Skins Factory
	Iron and Foundry and Mechanical Workshop
	Flour and Pasta Factory 1/
	Afgoi Brick Factory 1/
	Oil Refinery
Commerce	Somali Fish Trading Agency
	National Trading Agency (ENC)
	National Petroleum Agency
	National Agency for Building Materials
	Hides and Skins Agency
	Agency for Textiles and Household Appliances
Finance	State Insurance Company of Somalia (SICOS)
	Central Bank of Somalia
	Commercial and Savings Bank of Somalia
	Somali Development Bank (SDB)
Health	ASPIMA (pharmaceuticals)
	Social Security Fund of Somalia (CASS)
Information	State Printing Agency
Public Works9	National Electric Energy Authority (ENEE)
	National Agency for Construction
	Somali Consulting and Engineering Agency
Transport	Trading Agency for Vehicles and Spare Parts
	Somali Airlines
	National Transportation Agency

212. Public enterprises have not achieved the objectives for which they were established to attain because of a number of problems which have been facing them. The objectives of the Government which are still beyond the reach of public enterprises include:

1/ Under supervision of Somali Development Bank.

- self reliance in financing
- import substitution
- increased foreign exchange earnings from exports of Somali manufactured goods
- creation of jobs and therefore expansion of employment
- contribution to Government revenue by way of earned profits and surpluses
- in general, contribution to the diversification, of the economy

The World Bank[1/] has outlined a number of constraints which have been militating against positive and effective performance of the public enterprises.

213. To begin with the unsatifactory growth in manufacturing, which is due to declining output in agriculture, adversely affected agro-industries some of which are in the public sector. Secondly, the departure of Soviet experts and the loss of Soviet market, which was providing lucrative outlets, added further constraints to operations and profitability of public enterprises. The decline was severe in meat and fish industries.

214. While most public manufacturing enterprises had been incurring losses, trading enterprises were experiencing mere declining trend of profitability. The other reasons given for the unsatisfactory performance of the public enterprises include: high taxes and rates interest, detrimental controlled prices, and refusal by the Government to pay for goods and services, underutilization of installed capacity and ineffective management. Nearly all assets were created in the past by financing through short-term borrowing. Under utilization of capacity was partly responsible for the high costs of domestic products, especially those of the para-statal organizations.

215. It is recognized that other problems constrainting the operations of public enterprises commenced from the planning, selection and design stages of projects. Indeed some projects were established without

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1/ BRD Report No. 3284 - So of March 16, 1981 Pages 12-16

sufficient feasibility studies; hence the problems of shortages of agricultural raw materials, absence of markets, excess capacity, and others, which would have otherwise been foreseen.

Private Enterprises

216. There are numerous private enterprises; they are predominantly small-scale establishments. It is evident that the public enterprises sector is not fully equipped to promote and manage industrial establishments. It is, therefore, advisable for new policies and strategies to be introduced and executed in order to promote the participation of private entrepreneurs in selected industrial areas - so as to stimulate industrial growth.

217. Hitherto, private investments are by and large, in trade and real estate. Most private savings are not channelled into industrial concerns. There are Somali nationals living abroad who have accumulated savings and acquired some business acumen. It would be advisable for such policies and measures to be introduced for providing incentives, confidence, and security in order to attract the funds of migrant Somalis to finance small-scale and other manufacturing establishments.

218. The interaction of public and private industrial enterprises would no doubt consitute the necessary foundation for inter-industry of intersectoral linkages. The main area for success appears to be in small-scale industries in most cases.

219. Regarding performance, the private sector was far better than the public enterprises. For example during the period 1970-72 to 1976-78, value added in industrial establishments employing 5 or more people increased by 2.9 percent in the public manufacturing industries compared with 8.0 percent for the private manufacturing sector. Employment declined to -12.5 percent in the public sector manufacturing industries during the same period compared with an increase of 6.3 percent in the private sector. The causes of the poor performance in the public enterprises have been outline in the foregoing paragraphs.

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Some of the Government Organs

220. The Ministries of Planning and Finance play a major role in the industrial and economic development of the country. The Ministry of Planning is naturally responsible for overall planning and co-ordination. The responsibilities of the Ministry also include: negotiating aid, collecting and compiling statistical data as well as undertaking studies and evaluating projects. The Ministry of Finance deals with fiscal, financial and monetary matters, and in carrying out its responsibilities it inevitably introduces and executes policies and strategies which affect positively or negatively industrialization and general economic growth.

221. The other institution, from among others, which is of direct importance to industrial development is the Ministry of Industries. Its main function, inter alia, is to formulate and execute industrial plans, policies and strategies. A number of public industrial enterprises are under the control and direction of the Ministry. There are six departments, namely: finance, personnel, planning and research, technical, public sector enterprises, and small-scale industries department.

222. The Planning and Research Department has three divisions, namely: Industrial Planning, Project Reports Preparation and Evaluation, and Industrial Statistics and information. The Planning Division has three sections dealing with planning, policy and foreign relations. The sections of the Project Division cover approval of lines of production and of detailed projects. The third division is responsible for industrial information and collection and compilation of industrial statistics.

223. The Technical Department is composed of the Engineering Division and the Investment Control Division. The Engineering Division looks into the technological aspects of industrial enterprises or projects, covers the construction phase of the projects and assesses raw material requirements of enterprises. The Investment Control Division is concerned with cost accounting and other financial aspects.

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224. The three Divisions of the Public Sector Enterprises Department are concerned with economic and financial, personnel and technical matters of the public sector enterprises which are under the Ministry of Industry. Depending upon the importance of an enterprise, its General Manager reports to the Minister, Director General or the Director of the Department. This Department is given significant importance in the overall functioning of the Ministry.

225. The Small Industries Department has four divisions covering industrial development, appropriate techology identification, trademarks and invention certification, and marketing assistance.

CHAPTER V

Prospects for Industrial Development

Overview

226. Although the existence of natural resources is an important factor in the industrialization of a country, that alone is not always per se the determinant. By and large, the establishment in Somalia of economically viable industrial projects would call for the removal of the deep-seated retardatory problems to its industrialization. Indeed this will necessitate the formulation and implementation of such plans, policies, strategies and programmes as will lead to the emergence of economically viable industrial investment opportunities based on the exploitation and utilization of local raw materials to the maximum extent possible. Efforts and measures to be adopted must pay special attention to the establishment of effective physical infrastructure, a well co-ordinated and efficient institutional infrastructure, availability of sufficient number of manpower with the necessary managerial and technical capabilities, and sufficient funds for financing industrial projects, output, etc.

227. In Chapters III and IV, an attempt has been made to indicate, albeit in broad terms, industrial development opportunities which are based on local natural resources. The first major obstacle is the size of the market for Somali manufactured goods. The small size of the domestic market will restrict the local manufacture of a variety and quantity of import substitution goods; and production for export will demand very high quality to be sold at competitive prices.

228. Such prerequisites to industrilization as sound and efficient physical and institutional infrastructures take a long time to establish. The physical infrastructure in Somalia is far too inadequate to support effectively industrial development; nor does the existing institutional machinery effectively provide such services and assistance as are necessary to promote and sustain industrialization which has inter-industry and inter-sectoral linkages.

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229. Then scarcity of manpower with the necessary capabilities is the other constraint. While cheap labour in Somalia may be an advantage, lack of high skills constrains industrial development potentials. This manifests itself in the shortage of capable local industrial entrepreneurs and managers. The answer appears to be in more and more training. It is not possible, nevertheless to meet the short-term needs of industry only through intensive and extensive training. Technical and managerial personnel have to be sought in the short term, be obtained under bilateral and multilateral technical assistance programmes. Another policy requirement for success in the recruitment and retention of qualified Somalis is to offer attractive remuneratives and terms and conditions of service; otherwise industry will experience large and frequent staff turnovers, with their adverse effects on efficiency.

230. Shortage of financial resources will continue to be a constraint on the establishment of resource based manufacturing industries. It could, on the other hand, be argued that there would be no shortage of funds if viable projects were available. Both domestic and foreign financiers would be willing to invest in the industrial sector. This, therefore, points to the need for intensifying and expanding the identification, formulation and appraisal of industrial projects. However, the absence of qualified local people to undertake these promotional activities is obviously creating a vicious circle. Allied to this is the weakness of the institutional infrastructure.

231. The potentialities for industrialization will require well organized and managed institutions the operations of which could be mutually supporting and reinforcing in such a way that they constitute unified and coordinated services. Although the parastatals are some of the instruments for the execution of Government policies, they should be accorded sufficient latitude in the performance of their functions of managers, financiers and entrepreneurs. A reasonable measure of independence in their operations will ensure that they exercise commercial prudence in

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their investments and operations. In this regard, their profitability will depend to a great extent on non-government interference in the control of the prices of their products, and payment by the Government for goods supplied and services rendered by its industrial enterprises. Sound management and profitable operations will enhance the ability of enterprises to attract foreign and domestic funds.

232. Industrial co-operations will have to play a major role in the industrialization of Somalia; co-operation could be on a project by project basis or in the form of accessibility to markets of the co-operating partner countries. Meat and fish processing industries, which had unrestricted access to the market of the Soviet Union, are the case in point. With the excess capacity in the meat and fish processing plants as a result of the loss of Soviet markets, the potentials for increased capacity utilization lie in finding export markets. There are more examples of industries which could be established in Somalia, given export markets. It will be absolutely necessary for the Government to negotiate bilateral and multilateral marketing agreements. The opportunities offered under the Lomé convention should be exploited and so should markets in other African countries.1/

233. This brief background clearly indicates that the potentials for an accelerated self-sustaining industrial growth are very limited even in the long run, especially as long as the agricultural sector remains too underdeveloped to support the establishment of substantial agro-based and allied industries. Nevertheless, such policies and strategies as would bring about economic and social structural changes, which could promote and support industries, should be introduced and implemented without delay.

1/ Somalia is a member of the Southern and Eastern African Preferential Trade Association which was established in 1981 with the assistance of ECA. While it is too early to judge the opportunities for trade and industry within these new arrangements, Somalia should take steps to explore marketing possibilities within member countries of the Preferential Trade Association.

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234. Some of the necessary policies have already been referred to in the previous chapter. The following paragraphs highlight, albeit in a general way, some of the areas which would call for detailed examination, with a view for identifying, formulating, appraising and promoting economically viable industrial projects and/or programmes.

235. Table (62) and (63) below show public sector projects for execution during the 1982-1986 Development Plan, and projects studied and cleared for execution during the same period.

Public sector industries

236. The projects in tables (62) and (63) are to be executed by the public sector. There are also other industrial investment opportunities or potential which are at an initial stage of conception. They include:

	So.Sh.(million)
Kismayo shoe factory	21.68
Bolimog fish plant (rahabilitation)	7.00
Las Koreh fish canning (rehabilitation)	30.00
Solvent extraction plant (edible oil)	117.00
Crushed gypsum plant	3.50
Animal feed plant	12.50
Glass bottle plant	43.70
BIASA renovation	4.57
Non-ferrous sanitary fittings plant	2.96
Aluminium utensils plant (expansion)	8.60
Cigarette and match plant (rehabilitation)	30.50
Assistance to small industries	5.00
Ras-Hafun salt/fishery project	20.00
Cement Plant for exports at berbera	500.00
Lead accumulators	5.00
Formulation of pesticides	11.00

Other pipeline projects for investment in the public sector include lime processing, particle board manufacture and banana fibre bag manufacture.

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Table 62: Public sector projects for implementation, 1982 to 1986

(in thousands of Somali shillings)

Project	1982	1983	1984	1985	1986	1982-86
Juba Sugar Factory	73,737	10,880	650	-	-	85,267
Berbera Cement Factory	195,000	105,000	-	-	-	300,000
Mogadishu Milk Factory	8,900	15,820	2,600	1,800	1,380	30,500
Pharmaceutical Laboratory	50,000	23,000	2,000	1,000	-	76,000
Urea Plant	194,700	192,000	8,555	3,960	-	399,215
Total	522,377	346,700	13,805	6,760	1,380	890,982

Source: Draft Five-Year Development Plan; State Planning Commission, Mogadishu, August 1981.

Table 63: Projects studied and cleared for financing, 1982 to 1986

(in thousands of Somali shillings)

Project	1982	1983	1984	1985	1986	1982-86
IRAQ SOMA Refinery Modification	25,000	75,000	55,750	-	-	155,750
Cement Plant Bardheere	20,000	200,000	130,000	-	-	350,000
Balancing of Somaltex	28,780	13,525	11,925	35,995	30,725	124,000
Ginning Plant at Jamama	-	12,000	9,120	-	-	21,120
SNAI-BIASA Sugar Plant	43,000	12,000	10,100	-	-	65,100
Mogadishu Milk Factory Rehabilitation	2,330	2,800	870	-	-	6,000
Quick lime Plants	5,000	10,000	-	-	-	15,000
Ready made garments	2,500	-	-	-	-	2,500
National Bottling Co- Expansion	9,000	3,000	-	-	-	12,000
Total	135,610	328,325	220,815	35,995	30,725	751,470

Source: Draft Five-Year Development Plan, State Planning Commission, Mogadishu, August 1981.

237. The total amount of So.Shs. 891 million for investment in public sector industries during the period 1982-86 is a very large sum of money which will, if it is to be realized, necessitate tremendous efforts to mobilize both domestic and foreign capital. Success in raising funds for financing these projects will depend, in the first instance, on their economic soundness, monetary, fiscal and other incentives offered to potential investors, security of the capital to be invested and the confidence promoted by the overall government policies and strategies.

238. It has already been pointed out that public industrial enterprises are managers, financiers and entrepreneurs in addition to being instruments for implementing government policies and strategies in the industrial field. Their success in the mobilization of financial resources, promotion and management of industrial ventures will, to a great extent, depend upon basing their investment decisions and operations on commercial and economic considerations, This other things being equal, will promote their efficiency, profitability and therefore their ability to finance themselves from internal resources and to raise funds by way of loan and equity capital as well as pay dividends to the Government.

239. With the exception of those projects for which detailed feasibility studies exist, other project proposals will have to be formulated and fully evaluated if they are to become specific investment opportunities. It is emphasized that in view of the problems the studies should be thorough and should cover all aspects of the subjects, if Somalia is to steer clear of a repetition of the difficulties facing existing studies and as a result of making investment decisions in the past without prior detailed studies.

Privated Sector

240. For the promotion of investment in the private sector, policies will have to be formulated or redefined and measures taken for attracting foreign industrial investments; as well as of foreign currency assets of Somalians

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living abroad. These will include: provision of such facilities as free trade zones, industrial estates/areas and common services; liveralization of import and export licensing procedures; and review of import duties on capital goods and industrial raw materials, and other incentives including the availability of institutional finance on concessional or equitable terms and conditions. It is envisaged that these measures will lead to the attraction of equity, loan capital, line of credits, and suppliers' credit from foreign sources, given expectations of profits.

241. Indeed, the proposed policy measures should offer opportunities for the establishment of industrial joint-ventures between Somalis and foreigners. Some progress has been made in developing resources in which industrial enterprises could be built. There are small-scale investment opportunities which could cater for domestic and export markets. Local investors could be interested in the promotion of private small-scale industrial enterprises.

Potentials for Existing Manufacturing Plants

242. It would be imprudent to discuss potentials for new industrial establishments without examining those of existing ones, which are ailing and making losses year after year. Much of the losses are attributed to high costs arising from excess installed capacity. One of the tasks facing Somalia is in respect of increasing capacity utilization. Table (64) below provides a general illustration of excess capacity in a few public manufacturing enterprises.

Table 64: Capacity Utilization in a Sample of Public Enterprises

	Actual Production as a %age of Capacity		
	1976	1977	1978
I.T.O.P. Fruit Cannery	36	29	22
Mogadishu Milk Factory	51	53	46
Kisimayo Meat Factory	61	37	0
Flour and Pasta Factory	58	64	61
INCAS Box Factory	36	27	25
SOMALTEX	—	65	75

Source: Central Bank of Somalia, Annual Report and Statement of Accounts, 1978.

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243. The foregoing Table (64) shows a significant underutilization of industrial capacity. The prospects for maximizing production lie in the removal of the root causes of excess capacity, namely: loss of markets (particularly for meat, fish and cannery industries), shortage of raw materials and other inputs, high cost of imported inputs, lack of funds to purchase spares and replace obsolete machinery, poor maintenance, inefficiencies in management, etc. Most of these are stubborn problems, the solution of which would call for measures, some of which are beyond Somalia's reach. The Government has to examine each plant and decide whether there is any chance of continuing its operations economically or to close it in the light of the intractability of its problems. Somalia will no doubt need technical and financial assistance for the solution of some of the contraints.

New Resource-Based Manufacturing Potentials

244. In Chapter III, the recouce endowment of Somalia is discuessed. There are a variety of goods which could be technically possible to produce from those resources and their by-products. The main resources consist of: food and cash crops, animal resources, fish resources, forestry resources and mineral resources. The limiting factor to the establishment of certain industries based on these resources is the absence of a market which is large enough to ensure the absorption of all the quantity produced. In other words, the potentials for large-scale local manufacturing enterprises are very limited or absent.

245. On the other hand, for a country like Somalia, which is at the initial stage of industrialization and general economic development, the prospects for the establishment of industries lie in the promotion of plants for the processing of food and cash crops, animal, fish, and forestry resources. Unfortunately, Somali agriculture is still underdevelopment, and as such the quantity and quality of the products are too inadequate to permit the establishment of economically feasible and commercially viable processing industries. It is evident, therefore, that intensive and extensive farming is necessary for improving the

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quality and quantity of agricultural raw materials. This will entail the introduction of new techniques and methods of farming, such as the use of fertilizers, insecticides and pesticides, plus the construction of supporting infrastructure.

246. Agro-allied industries have some potentials. The technology and scale of production must be carefully examined in order to avoid a creation of excess capacity. Where the domestic market is too small to support local manufacture, efforts should be made to find external markets under industrial co-operation, bilateral and/or multilateral industrial co-operative arrangements. Such arrangements could be on a product by product basis or on broadly based trade agreements. In this connection Somalia should seek to expand its industrial joint-ventures with foreigners who would provide equity, know-how and marketing. It is repeated in order to make emphasis that the inudstrial possibilities mentioned in Chapter III, and any others should be thoroughly studied, and where some are feasible, then they should be formulated and evaluated for subsequent promotion into operational industrial enterprises.

Livestock Related Industries

247. There are hides and skins and some local skills have been developed in their processing. This positively points to possible opportunities for the establishment of enterprises for the manufacture of vegetable tanned hides and skins, sole leather and harness leather, lining leather, picking band leather, and bunwar leather. However, there is very little demand for these products in the domestic market; therefore, export markets will have to be explored. This will not be easy in the face of competition from long established and efficient producers of the same products.

248. Besides, tanned hides and skins could form the baiss for the development of factories producing leather footwear, shoe uppers, sandals, garments, purses and handbags, industrial leather gloves, laminated leather belting, chrome leather fining washers, chrome leather laces, fancy leather goods, and leather sports goods. Despite the availability of the main raw materials, local production of these goods is not feasable because of insufficient local demand for these products. Export markets will have to

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be explored to make local production economically viable. Should a leather complex be successfully established, there would be opportunities for the manufacture of leather adhesives, shoe polish, cobbler thread, shoe waxes, shoe eyelets, shoe tacks and rubber and PVC soles and heels. But these cannot be realized in the near future; attempts should, however, be made to introduce such technologies as would permit economic production of some of these products on a small-scale.

249. The other by-products of livestock which could also lead to industrial ventures are the fleshings and trimmings of untanned hides and skins. These can be used for manufacturing industrial glue. Hooves, horns and bones can be used for the extraction of gelatine, which could be used in pharmaceutical and photographic materials. Bristles can be an important raw material for the manufacture of brushes. Intestines might be concerted to gut for rackets. Bone meal and blood meal are raw materials for the production of cattle and poultry feed.

250. The majority of the suggested potential industrial opportunities involve sizeable investments. A significant proportion of the investments will require foreign exchange to purchase machinery, equipment and inputs. Total production of all these items would be more than what would be consumed within the country; the establishment of manufacturing facilities in Somalia would, therefore, be justified only if there are export markets. Government support is thus necessary for such a development, particularly in concluding trade agreements with other countries which would facilitate exports of leather and leather products from Somalia.

Agro-Based and Allied Industries

251. The other important resource sector is agriculture. The 1982-86 Plan includes a number of projects covering this sector. In the foreseeable future, emphasis will continue to be on the use of animal power-operated agricultural implements, especially because of the abundance of cattle. Some of the animal-driven agricultural implements which are

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suitable for the country are: ploughs, sweeps, drills, weeders, diggers, harvesters, threshers, winnowers, etc. Such implements have been developed for various soil conditions in countries such as China, India and Pakistan. There is a project in the Baidio area for developing such implements to suit local conditions; and the Mechanical and Foundry Workshop at Mogadiscio is being utilized for developing prototypes.

252. The co-operation of developing countries with relevant experience in the manufacture and utilization of these implements should be sought. Of course, given adequate demand, local production is particularly important in view of the scarcity and high prices of imported fuel for mechanically-operated agricultural machinery and equipment. (Of course the main determinant of the manufacture of these implements in Somalia is the existence of sufficient demand).

253. Agro-allied industries such as the production of fertilizers, manure and plant protection products are envisaged. The manufacture of urea is proposed in the 1982-86 Plan. Details of the programme to supplement that with potash and phosphetic soil nutrients are yet to be worked out. Different soils and various crops require separate composition of the fertilizer mix. This provides scope for promoting enterprises for the manufacture of mixed granulated fertilizers. Such fertilizers are one and one-half times more effective in providing nutrition to crops.

254. Animal and human excreta and agricultural waste are well-known sources of manure. However, from such a mass, biogas can be formed and the residue left does not stink, nor does it attract flies, and insects. In this field, extensive work has been done in China and India. The gas stored in a floating tank under its own pressure can be used as a fuel for cooking or lighting and even for generating motor power. Different models can be designed to suit the specifications of the user of biogas. The adoption of this Somalia will, to a significant extent, meet the fuel requirements of the country besides preparing good quality manure. However, there will initially be the problem of collecting biomass.

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255. The 1982-86 Plan provides for the extension as well as intensification of the use of insecticide, pesticide, fungicide and herbicide formulcations. At present, those being used are mainly in the form of dust, oil emulsions or water dispersions. The ingredients are broadly placed into two groups, namely active and inactive ingredients. Inactive ingredients are sued for properly dispersing the active materials to protect plants and should be locally available, particularly for "dusts". It is not a complicated process, and the use of formulcation would justify the establishment of one or more plants at suitable locations near the agricultural areas. The extension service provided in the agricultural sector will go a long way to encourage farmers to take to the use of such formulations once they are available.

256. There are industrial potentials based on the establishment of plants for processing agricultural produce. These will depend upon the availability of raw materials for processing. At present, there is a very limited supply of such food crops as sorghum, maize, rice, beans and oil seeds. Whatever is produced is mostly for subsistence of farmers. Food grains are being imported. The flour mills and pasta factories established in different parts of the country are working below capacity due partly to lack of raw materials. The possibility of promoting enterprises to manufacture jaggery and "khandsari" (a produce between jaggery and crystal sugar but closer to sugar) should be explored. The investment involved would be small and within the reach of local entrepreneurs. Technical knowhow could be obtained from other countries, such as India.

257. An economic use of molasses has already been planned. Opportunities for the manufacture of industrial alcohol, which could partly be mixed with benzene for automobile fuel and partly for the production of cosmetics and other chemicals, should be studied. The possibility of recovering carbon dioxide by the sugar factories could be examined so as to facilitate the production of soft drinks. Sugar with milk could be used for the manufacture of ice cream and candy, which are quite popular in the country. Potential also exists for the use of milk in the local production of such diary products as cheese. The above possibilities would, however, depend on the availability of demand.

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258. Cotton is an important industrial raw material, the expanded production of which is planned during 1982-86 to meet the increased requirements of the textile mill. The possibility of manufacturing absorbent cotton and of sanitary towels should be studied. Smaller enterprises might also be promoted for manufacturing surgical bandages and gauze, cotton knitted cloth, knitted cotton vests, knitted cotton underwear, cotton (and nylon) socks, brassieres, shoelaces, hurricane lantern wicks, sewing and cobbler's thread and ready-made garments. Some of these products are already being manufactured or their production has been planned. These will require detailed feasibility studies.

259. Cotton seeds, along with other oil seeds, provide opportunities for the expansion of the oil milling industry. Similarly, from brans (such as that of rice), oil can be extracted to meet the increasing needs of the country. Oil cakes usually contain a sufficient quantity of oil to justify the establishment of solvent extraction plants. The residual cake is a suitable material for use as an important ingredient of animal and cattle feeds.

260. Bananas are the other important cash crop. Expansion of bananas production is planned during 1982-86. At present a significant portion (around 14 percent) of the produce is partly used for feeding cattle. Some of this can be converted into banana powder which can be used in the manufacture of baby food, confectionery and ice cream. The powder could even have export potentials. A viable plant to consume the bulk of such bananas could be established, possibly with foreign technical and financial collaboration. A moving press crushes banana trunks in the field, and the dry fibre can be used for cardboard. Banana fibre has been recognized as a good material for manufacturing bags, and the development of this industry could recult in foreign exchange savings. Possibilities for promoting the extraction of pectin and papain from papaya also exist. There may be opportunities for the manufacture of tomato ketchup and sauce and grapefruit juice, and the production of jams and jellies, biscuits and bread. The processing of all these products would depend upon adequate supply of the raw materials, hence the need for the expansion of the production of the required materials.

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Forestry - Related Industries

261. The planned development of forests during 1982-86 is not expected to provide much scope for promoting wood-based enterprises of great magnitude. Sawdust is a by-product of wood sawmills. There is a shortage of fuel in the country. This could be converted into sawdust briquettes and used as fuel. The extraction of valuable export-essential oils from such plants as frankincense and myrrh should be examined. Sisal shrubs grow widely in Somalia. Sisal fibre could be extracted and used for cordage and binding materials. It was further gathered that "neem" trees grow in large numbers in the country. The oil content in the neem seeds should be investigated since this oil has industrial uses. However, supply of the seeds will have to be studied before a unit to extract the oil could be established. There are some wild cashew nuts in riverine areas. The quantity available should be assessed in order to determine the economic justification for establishing a small plant to process the nuts.

Mineral - Related Industries

262. Even though occurrences of a variety of mineral resources have been identified, for most of them it will take a long period of time to establish mineral-based industries in Somalia, except in the case of limestone and gypsum, for which industries can be developed. In fact, a cement factory (in the public sector) is being developed at Berbera, and another is planned for Bardheere. Lime might also be used for manufacturing precipitated chalk, which is again a raw material for the foundation of face powders and toothpaste. Other products, such as calcium chloride, calcium sulphate and calcium phosphate can also be manufactured.

Potentials for Small-Scale Industries and Rural Industrialization

263. The prevailing economic factors and social conditions point to the need for paying special attention to the promotion of small-scale industries as one of the essential features of industrialization and diversification of production in Somalia in the years to come. Accordingly the following paragraphs briefly highlight some of the salient aspects of the development of small-scale industries and industrial estates in Somalia.

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264. The small size of the domestic market, the scarcity of natural resources on which large-scale industries could be based and acute scarcity of some local skills and entrepreneurship, are some of the factors to which close attention should be paid and sufficient measures taken to provide solutions for the development of small-scale industries and industrial estates in Somalia. In addition, the need for diversifying economic activities in the rural areas in order to arrest influx of young men into urban areas looking for jobs, strongly underlines the necessity and urgency of formulating such policies and measures as would facilitate the promotion of small-scale industries and industrial estates.

265. There is a department in the Ministry of Industries which is concerned with the development of small-scale industries. While the department is trying hard to accomplish its functions, it is evident that its effectiveness is constantly kept in check by such factors as: critical shortage of financial resources, inadequate staffing, lack of local people with adequate managerial and technical skills which are necessary for the establishment, management and operation of certain small-scale industries, etc. It is a consequence of critical shortage of competent staff extension and technical services, including training, are either non-existent or are available to a very limited or ineffective extent.

266. Local resource - based small-scale industrial establishments have bright prospects for success provided that certain prerequisites are met and sustained. The measures which the government should take include:

- Establishment, staffing and/or strengthening of the necessary institutional infrastructure for the promotion of small-scale industries and industrial estates;
- Securing funds or credit to lend to small-scale industrial entrepreneurs;
- Procurement of raw materials, where necessary, for small-entrepreneurs;

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- Assist in the marketing of the products in both domestic and export markets; including government procurement policy, which should aim at purchasing from small entrepreneurs, where possible;
- Provision of extension services and training;
- Establish facilities for the improvement of design, quality and standards of goods;
- Undertaking industrial and market research on behalf of the small-scale industrial entrepreneurs, including acquisition and adaptation of appropriate technology;
- Selection and training of staff who are to render extension services.

267. The foregoing functions, and others, could be performed by some of the existing institutions. For example, the Somali Development Bank (SDB) and the Commercial and Savings Bank of Somalia could expend their loans and credit facilities on such terms and conditions as would enable efficient and deserving small industrialists to obtain funds for expanding or starting small-scale industrial plants. The department of small-scale industries of the Ministry of Industry could provide expanded extension and technical services. It would, however, be advisable to examine carefully the institutional machineries required for the effective promotion of small-scale industries. This is a very urgent matter.

268. Allied to the development of small-scale industries is the question of establishing and managing industrial estates. The Government of Somalia would like a comprehensive study to be undertaken with a view to determining whether or not it would be feasible to establish industrial estates in Mogadiscio, Baidiom Kismayo and Hargeisa. It is very unlikely that all these towns qualify for having an industrial estate, at least not in the near future. This is so because, apart from the exorbitant cost of establishing industrial estate, the follwoing prerequisites must be met if an estate is to succeed:

- there must be a large number of entrepreneurs able and willing to utilize effectively the facilities which are provided by the estate.

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- there must be a large population with such purchasing power as would constitute adequate effective demand for a variety of products from the estate;
- there must be a group of skilled workers or people whose skills may be upgraded through training;
- adequate number of staff who are sufficiently qualified and experienced in industrial estate promotion, organization and management as well as technical staff who are capable of providing extension services.
- there must, of course, be adequate physical infrastructures (water, electricity and transportation facilities), etc.

269. If the foregoing prerequisities are considered to be sufficient guidelines, then only Mogadiscio appears to qualify for an industrial estate during the next five years. Of course this is a pre-study impression of judgement. A study may reveal that one more town has also an absorptive capacity for an industrial estate. It is emphasized that prior economic studies should be undertaken before an estate is constructed. Among the aspects to study are:

- nature of industries and handicrafts in the country;
- markets for the products of the estate;
- number, size and nature of local industrial units;
- level of Somali entrepreneurial development;
- availability of local raw materials, and possibly imported ones;
- existing skilled labour and training;
- determination of line of products.

270. Small-scale industries have potentials but the prospects would largely depend upon government policies and positive support, which should cover the prerequisites mentioned earlier on and others which may affect the success or failure of programmes for the promotion of small-scale industrial establishments in Somalia. It is evident that the Government will need bilateral and/or multilateral technical and financial assistance. Technical assistance personnel will particularly be necessary to formulate and launch or expand the programmes. It is emphasized that the formulation

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of the programme should be preceded by careful studies of the development of small-scale industries in general plus feasibility studies for the establishment of specific industrial estates in Somalia.

271. It is considered advisable to undertake two separate studies: one should deal with the promotion of small-scale industries in rural and urban areas throughout the country; while the second study should concentrate on the establishment of an industrial estate or more industrial estates. Thus the next step should be to draft clear and comprehensive terms of reference for the two studies. UNIDO could assist in the formulation of the terms of reference as well as providing experts to carryout the two proposed studies, which could be completed within a period of not more than three months.