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THE AGRO-BASED INDUSTRIES IN TANZANIA: KEY CHARACTERISTICS AND REHABILITATION ISSUES*

<u>Studies on the rehabilitation of African industry</u>

No. 8

Prepared by

Regional and Country Studies Branch

Industrial Policy and Perspectives Division

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PREFACE

As part of the programme of the Industrial Development Decade for Africa, UNIDO's Regional and Country Studies Branch is issuing a series of studies determining both the major problems of African manufacturing and their potential for regenerating the sector. The aim is to outline policies and measures that may result in overall improvements and to identify individual plants for assistance. The backbone of the series is formed by a number of country-level diagnostic surveys on the rehabilitation requirements of African manufacturing industries. These have been compiled by teams of experts during four-week field missions. As the surveys contain confidential plant-level information, their circulation is restricted. In order to present the salient parts of the full country surveys to a wider readership, a series of 'highlights' is being issued.

This particular report presents the highlights of the Tanzania mission's survey of industrial rehabilitation needs of Tanzanian agro-based industries. It provides the reader with a general description of the economic and policy environment for industrial rehabilitation, as well as a description of Tanzania's agro-related industries and branches. Chapters 6 and 7, providing general observations and recommendations regarding government policy and companies, should be very useful in formulating an agenda for rehabilitation efforts. The full survey should be consulted for detailed suggestions for specific plant-level rehabilitation requirements.

The UNIDO field mission visited the United Republic of Tanzania from 10 February to 10 March 1989. The team consisted of Mr. Victor Zakharian, UNIDO (team leader), and UNIDO consultants Mr. Tom Alberts, Mr. Grant Hughes, Mr. Abdallah Makange, Mr. Daniel Nicholson, Mr. Graham Walker and Mr. Samuel Wangwe.

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MAP OF TANZANIA

Source: Economist Intelligence Unit.

The boundaries shown on maps do not imply official endorsement or acceptance by the United Nations.

GENERAL COUNTRY INFORMATION

AREA:	945,000 km^2
POPULATION:	23.5 million (1987/88)
POPULATION GROWTH RATE:	3.3 per cent per year (1987/88)
MAIN CITIES:	Dar es Salaam 851,000 (1978) 1,400,000 (1984) Musoma 219,000 (1978) Dodoma 158,000 (1978) Tanga 144,000 (1978) Zanzibar Town 110,000 (1978) Mwanza 110,000 (1978)
GDP AT CURRENT PRICES:	TSh 204.5 billion or US$4,020,000 (1986) (increasing at annual rate of 0.7 per cent in 1980-1985, 3.6 per cent in 1986, and 3.9 per cent in 1987)
GDP PER CAPITA:	US$ 210 (1987) (growing at rate of 0.6 per cent in 1987)
DISTRIBUTION OF GDP BY SECTOR:	Agriculture 59 per cent Manufacturing Industry 4 per cent Construction and Mining 5 per cent Services 32 per cent
EXCHANGE RATE (OFFICIAL):	TSh 130 = US$ 1 (March 1989)
AVERAGE RATE OF INFLATION:	30 per cent per year (1980-1986)
OUTSTANDING DEBT:	US$ 500 million (1985)
EXPORTS (f.o.b.):	US$ 400 million (1988, estimated)
IMPORTS (c.i.f.):	US$ 1,200 million (1988, estimated)
PRINCIPAL EXPORT CROPS:	Coffee US$ 167.1 mn (1986) Cotton US$ 30.9 mn (1986) Sisal US$ 5.4 mn (1986)
INFANT MORTALITY RATE:	1.5 per cent
LIFE EXPECTANCY:	(male) 51 years (female) 55 years
SCHOOL ENROLMENT:	3.2 million (1988) (enrolment rate about 87 per cent at primary level, and 4 per cent at secondary level)
OFFICIAL LANGUAGES:	English and Swahili

LIST OF ABBREVIATIONS

BIS	Basic Industries Strategy
CCM	Chama Cha Mapinduzi
CEDO	Consulting and Engineering Design Organization
EC	European Community
ERP	Economic Recovery Programme
FAO	Food and Agriculture Organization
GDP	Gross domestic product
IDA	International Development Agency
IMF	International Monetary Fund
MFEAP	Ministry of Finance, Economic Affairs and Planning
MIT	Ministry of Industry and Trade
MVA	Manufacturing value added
NEC	National Executive Committee
OGL	Open General Licence
PTA	Preferential Trade Area
SADCC	Southern African Development Co-ordination Conference
SIDO	Small Industries Development Organization
SPM	Southern Paper Mills
TAFCO	Tanzanian Animal Feeds Company Ltd.
TISCO	Tanzanian Industrial Studies and Consulting Organization
TKAI	Tanzania Karatasi Associated Industries
TSh	Tanzanian shilling(s)
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization

CHAPTER 1

KEY FACTORS AND TRENDS IN THE TANZANIAN ECONOMY IN THE CONTEXT OF REGENERATION

1.1 Current economic situation

Tanzania's current economic crisis began to surface in the 1970s when the growth rate of GDP decelerated, and the growth rate of the directly productive sectors (agriculture, industry) declined even more dramatically. During the period 1980-1985, the volume of economic activity increased by an average of only 0.7 per cent per year.

In the period 1970-1976, value added in agriculture grew at a rate of 1.01 per cent per year, in a country whose population was increasing at a rate of 3.3 per cent per year. This low rate of agricultural growth led to stagnation in the volume of exports, as 80 per cent of all exports originate from this sector. Coupled with the deteriorating terms of trade for the major export crops, it also resulted in a decline in the value of exports. This situation precipitated a shortage of foreign exchange to import essential inputs, equipment and spare parts for the economy. The industrial sector, transport and communications, and other physical infrastructure were soon operating below capacity due to the lack of the necessary imports.

The poor performance of the agricultural sector was caused by drought in some parts of the country, producer prices which were low and in some cases declining in real terms, inadequate research and extension services, and poor marketing channels. These problems were exacerbated by drastic institutional changes (e. g. villageization, and replacement of co-operatives by crop authorities), and inadequate allocation of resources to agriculture, particularly to smallholder farms.

The economy was further subjected to strain by the break-up of the East African Community in 1977, regional conflict in 1978/79, sharp increases in the price of oil in 1973/74 and 1979/80, and the generally import-intensive investments (especially in industry) which were made during the 1970s. These developments, which exerted pressure on the balance of payments to the extent that they required considerable expenditure of foreign exchange, also contributed to the budget deficit in that they were largely financed from the government budget. Deficit financing led to an increased money supply and thus contributed to inflationary pressures in the economy. Gross capital formation averaged over 25 per cent in the 1970s, but the capital stock created could not be fully utilized due to the scarcity of imported inputs and to the deterioration of plant resulting from lack of maintenance.

Attention in the 1980s turned to the search for ways of rehabilitating the run-down capital stock, especially in industry, physical infrastructure and agriculture. Compared to reliance on new investment, rehabilitation and better utilization of existing capacities was endorsed by the Government as a more efficient means for reviving output, alleviating the shortages of goods in the economy, and easing the rate of inflation.

Redirection of efforts towards rehabilitation began in the National Economic Survival Programme of 1981-1982, when it was stated that the focus would be on the consolidation of overall production, the completion of ongoing projects and the more complete utilization of existing capacity, before embarking on any new projects. This focus was articulated further in the Structural Adjustment Programme (1982-1985), which stated that priority would be accorded to the rehabilitation of existing capacity, and which either postponed or canceled a number of projects planned for implementation, except where new projects were seen as needed to eliminate bottlenecks in production. The emphasis on the rehabilitation of existing productive capacity has been further reiterated in the current Economic Recovery Programme (1986-1989).

The volume of economic activity has begun to show signs of recovery, with the rate of GDP growth increasing to 3.6 per cent in 1986 and to 3.9 per cent in 1987. These could be the first signs of an upturn in the economy.

1.2 The impact of economic policies

The economic crisis was caused by both external and internal factors. The economic policy response to the crisis, irrespective of its causes, has generally been inadequate since the 1970s in the following areas:

1. Producer prices in agriculture were kept too low, mainly in order to maintain low food prices for the urban population. Export taxes, overvaluation of the exchange rate and high marketing costs contributed to holding down the prices of export crops.

2. Allocation of resources to the agricultural sector was permitted to decline; during 1981-1983, for example, the share of development expenditures allocated to agriculture averaged 10-12 per cent (although this share has increased to 26-30 per cent in the period since 1983). Low allocations to this sector resulted in a decline in agricultural production due to the deterioration of research and extension services, poor marketing supply of agricultural inputs, and the lack of incentives.

3. The exchange rate was overvalued, and this worsened over time as the Government delayed using the exchange rate as an explicit policy instrument. Under the Economic Recovery Programme, the Government is pursuing an active exchange rate policy with the aim of attaining an equilibrium exchange rate.

4. Administrative controls determined the allocation of resources to a large extent. Price controls were over-extended, rendering them less effective and fueling the growth of parallel markets. The role of administrative allocation of foreign exchange is being reduced with the introduction and gradual expansion of the Open General Licence (OGL) facility. Price controls have now been reduced considerably.

5. The parastatal sector exhibited mixed performance, and was generally marked by a lack of incentives and explicit performance criteria. Consequently, no action was taken to reduce the deficiencies, even for those parastatals which were operating inefficiently. The Government prepared an action plan in 1987/88 to rationalize the parastatal sector, so as to improve the institutional environment in which parastatals operate and to restructure specific enterprises.

(6) The balance in the allocation of resources between new investments, on the one hand, and rehabilitation and improved capacity utilization, on the other hand, had been in favour of new investments. This was partly due to the evident preference of foreign financing for new projects, and partly due to the assumption that the economic crisis would be short-lived. This imbalance is now being addressed through a deliberate policy to shift the allocation of resources in favour of rehabilitation and utilization of existing capacities.

(7) The urban population has had better access to price-controlled items, which discouraged the rural population from increasing agricultural output due to lack of incentive goods and agricultural inputs. With the reduction of price controls and increasing agricultural producer prices, this problem has lessened considerably.

1.3 International trade and payments

The deterioration in the terms of trade, together with the stagnating volume of exports, has resulted in a decline in export revenues, with the share of exports to GDP declining from 22.3 per cent during 1970-1973 to only 8 per cent during much of the 1980s.

The current account deficit exceeded export revenue twofold in the 1980s and was largely financed by loans and grants. However, the inflow of foreign finance has stagnated and declined since 1983, partly because the Government had not yet concluded an agreement with the International Monetary Fund (IMF) and payments arrears were accumulating rather rapidly. Tanzania's outstanding debt increased from US$ 1.6 billion in 1983 to US$ 3.5 billion in 1985, and rose further to US$ 5.0 billion in 1988. Although most of this debt is on concessional terms, the debt service ratio rose from 21 per cent in 1982 to 91 per cent in 1986, rendering the country much less creditworthy in the international financial market. Following the signing of the IMF agreement in August 1986, debt rescheduling has been negotiated, which has eased the situation slightly, as more foreign exchange was released for the rehabilitation of the economy.

The balance of payments situation remains precarious, however, mainly because export revenues have not increased to any substantial degree. Although there have been increases in the volume of exports for a few crops (e.g. cotton) since 1985, the terms of trade in general have deteriorated and export revenue has stagnated. In some cases, the lack of infrastructure has resulted in transport bottlenecks, and has caused serious difficulties in handling the larger volumes of output.

1.4 Tanzania's economic potential

Tanzania had an estimated population of 24 million in 1988, growing at an average rate of 3.3 per cent per year in the period 1978-1988. The urban population is growing much more rapidly, at 8.3 per cent per year. Tanzania has a large surface area of some 945,000 sq km (including lakes), and a land area of 886,000 sq km. With an average population density of 25 persons per sq km, there are wide variations from one area to another, ranging from 2 per sq km in Mpanda to over 200 per sq km in the highland districts.

The climate and environmental conditions are sufficiently varied to accommodate a wide range of crops (coffee, cotton, cashewnuts, sisal, tobacco, tea, pyrethrum, cocoa, maize, sorghum, wheat, potatoes, bananas, oil-seeds and fruits) and livestock (cattle, goats, sheep, pigs and poultry).

Forest and woodland areas cover 43-50 per cent of Tanzania, according to various estimates. About 80 per cent of forest reserves are classified for production purposes. Timber extraction is supposed to be carried out only under licence, although it is often uncontrolled. National parks and game reserves cover 25 per cent of the land and could be a substantial resource if their exploitation is planned carefully.

Despite the large share of forested and woodland areas, the accelerating rate of deforestation is causing concern. Of total energy consumption (both commercial and non-commercial), about 92 per cent is wood-based, 0.6 per cent is electricity-based and 7.4 per cent is petroleum-based. The latter energy sources have to be imported, absorbing 50-60 per cent of export earnings.

Fortunately, however, there is great potential for developing alternative sources of energy, notably hydroelectric power, coal and natural gas. Tanzania has a hydroelectric potential of about 4500 MW, of which only 327 MW has been developed to date. The development of coal resources has expanded recently, although inadequate distribution networks and the slow acceptance of this product by the population have limited the market size. The recently opened Kiwira coal mine has the capacity to produce 150,000 tons per year. Proven gas reserves of 0.72 trillion cubic feet at Songo Songo could be used not only for fertilizer production but also for power generation and for the development of the liquid fuels industry.

The potential for developing mineral-based industries in Tanzania is quite substantial. The major mineral resources which have been explored are iron ore (85 million tons of proven reserves), coal (324 million tons), gold reef (0.8 million tons), diamonds (2.5 million tons), and magnetite (4.5 million tons). One major obstacle to the development of some of these mineral reserves is the sizeable capital investment which would be required to build the necessary physical infrastructure and develop the mines at a time when the economic situation is still precarious.

1.5 Economic co-operation and its influence on the national economy

One salient feature in the development of Tanzania is the strong support provided by the international community for its social and economic development. (In 1985 Tanzania was the third largest recipient of bilateral aid in sub-Saharan Africa.) As a result, however, Tanzania has become increasingly reliant on official development assistance for financing its development projects and for balance of payments support.

Tanzania's main bilateral donors are the Scandinavian countries, contributing over 50 per cent of gross disbursements from bilateral donors in 1986, the Federal Republic of Germany, and the United Kingdom. Other major bilateral donors are Canada, Italy, Japan, Netherlands, and the United States. Following the 1986 agreement with the IMF, donor commitments increased by over 50 per cent, reflecting increased confidence in the Tanzanian economy. Donors committed US$ 759 million in 1987, a rising trend which continued into 1988, for which US$ 850 million was pledged.

Table 1.5: Gross official development assistance
(millions of US dollars)

	1981	1982	1983	1984	1985	1986
Bilateral	538.5	504.9	450.1	423.0	387.0	607.4
of which:						
Denmark	32.8	39.8	40.4	31.6	40.8	137.7
Sweden	76.5	73.8	69.3	55.1	49.0	106.4
Norway	40.1	51.9	54.9	46.4	45.4	71.8
F. R. Germany	54.5	59.0	36.3	49.9	32	45.0
United Kingdom	56.0	41.2	43.9	29.7	23.0	17.5
Multilateral	174.8	188.9	151.3	142.6	107.7	164.9
of which:						
IDA	78.2	98.6	64.9	57.3	30.8	86.3
European Community	40.6	30.0	27.1	31.9	30.0	37.8
Total, all donors	713.2	693.8	601.4	565.7	494.7	772.2
of which:						
grants	508.5	490.2	429.9	429.5	408.0	646.8

Source: OECD Development Assistance Committee, Geographical Distribution of Financial Flows to Developing Countries.

In the past, aid co-ordination was often carried out on an *ad hoc* basis and piloted by several ministries. The restructuring of the Ministry of Finance, Economic Affairs and Planning involved the upgrading of its Division of External Finance and Debt Management, which now has direct responsibility for aid co-ordination with bilateral and multeral aid partners.

Donor level co-ordination in Tanzania is carried out mostly through informal meetings of donor missions based in Dar es Salaam, alternatively chaired by the World Bank and UNDP representatives.

Tanzania is a member of both the Southern African Development Co-ordination Conference (SADCC) and the Preferential Trade Area (PTA). A number of studies on SADCC industries are being prepared in Tanzania with support from various quarters (e.g. EC, Commonwealth Secretariat, Nordic countries). Within the SADCC region, Tanzania has been exporting mainly to Mozambique, mostly textiles and clothing. In addition, there has been some exports of fish to Zambia and cement to Botswana (1983). Tanzania has also imported zinc and copper from Zambia and maize from Zimbabwe (1981-1983).

Tanzania's trade with PTA countries has been declining, partly due to reduced manufactured output, and therefore manufactured exports, and partly due to the overall stagnation of the capacity to import. In addition, mechanisms for the promotion of trade in the PTA have yet to be put in place.

The future prospects for international co-operation with Tanzania can, in general, be considered as favourable. There has been a significant increase in aid and aid commitments during recent years. There is reason to expect that the currently high levels can be sustained, and perhaps even increased.

Donor co-operation with Tanzania depends on a variety of factors. Some of these lie outside the control of Tanzania, such as the economic trends in the industrialized countries and the general political climate regarding development assistance, while others depend on Tanzanian policies. One of the factors determining future aid flows to Tanzania will be its success in promoting agricultural growth, regenerating industry and increasing exports. Expectations are high among donors that Tanzania is making concerted efforts, including implementing some harsh policy measures, to rectify some of the harmful consequences of past policies. If positive results are in fact achieved, co-operation with donor countries could increase significantly.

International financial institutions such as the World Bank and the IMF, as well as institutions such as the European Investment Bank and bilateral export credit schemes such as the Swedish Commission for International Technical Co-operation, are closely monitoring developments in Tanzania. A Tanzanian success story would certainly open up possibilities for other forms of economic co-operation, and could pave the way for important private investments from the industrialized nations.

1.6 Participation in the SADCC industrial rehabilitation programme

The SADCC region imports most of its consumer requirements and virtually all its capital goods. The deterioration of their balance of payments position has forced most members of SADCC to severely curtail imports, which has contributed to undermining the region's industrial growth.

The manufacturing sector has been particularly hard hit by the shortage of foreign exchange, which has led to substantial capacity underutilization, especially in Angola, Mozambique, Tanzania and Zambia.

The main thrust of the recent strategies and programmes for industrial co-operation is the promotion of self-reliance among SADCC countries in the production of goods and services.

The following priority areas constitute the major elements of this programme:

- rehabilitation of existing industries;

- expansion of existing capacities or the creation of new capacities to satisfy regional demand;

- promotion of core industries (e.g. iron and steel, engineering, basic chemicals);

- development of support services (e.g. standardization and quality control, research and development, harmonization of investment codes).

Rehabilitation of existing industries has been accorded high priority by SADCC, which has approved a number of specific rehabilitation projects. Concrete project proposals in the area of industrial rehabilitation were first presented in a workshop held in Arusha in August 1985, at which 63 projects attracted interest from prospective investors. The kind of rehabilitation support sought included financing of replacement equipment, technical assistance, training and financing of further studies. The selection criteria for projects are: (a) those included in the 1981 Blantyre programme of action for industry; (b) those utilizing mainly indigenous resources; (c) those having export possibilities; and (d) those with linkages to other sectors, especially agriculture, mining and transport. Funding has been secured by SADCC to undertake rehabilitation studies in edible oils, fertilizers, foundries, textiles, metal working, and leather and leather goods.

As regards harmonization of investment codes, a study was commissioned by SADCC to examine in greater detail the investment codes and regulations of member states. The purpose of the study is to facilitate assessment, rationalization and harmonization in order to encourage investment. Harmonization of the investment codes would not only streamline areas of conflict but would also promote co-ordination of the regional market for inter-SADCC trade.

Among the industrial rehabilitation projects which have been or are being studied by SADCC, the following are expected to make a direct contribution to industrial rehabilitation in Tanzania, when implemented:

- rehabilitation of cement plants;
- rehabilitation of fertilizer plants;
- feasibility study on the upgrading and expansion of pesticide and insecticide plants in Tanzania;
- rehabilitation of plants for edible oils and by-products;
- rehabilitation of iron and steel plants;
- improvement of engineering facilities;
- rehabilitation of foundries;
- rehabilitation of workshops for manufacture of railway rolling stock and equipment;
- rehabilitation of leather and leather goods industries;
- rehabilitation of textile factories.

CHAPTER 2

THE POLICY AND INSTITUTIONAL BACKGROUND TO REHABILITATION

2.1 Impact of the Economic Recovery Programme on industrial rehabilitation

The manufacturing sector experienced a significant decline in industrial output between 1980 and 1986. During this period, manufacturing value added (MVA) declined by an average annual rate of 4.85 per cent. The main factor behind this decline was the inability to purchase imported inputs and equipment required by the manufacturing sector for operating industries and for rehabilitation. The situation was further aggravated during 1982-1985, when inflows of foreign aid receded, pending conclusion of the negotiations between the Government and the IMF/World Bank.

The Economic Recovery Programme (ERP) was formulated at a time when the manufacturing sector was deprived of its import requirements. It is in this context that the concern of the ERP was first to raise the level of industrial capacity utilization from about 20-30 per cent to at least 60 per cent over the programme period.

Although a relatively greater inflow of external resources was envisaged under the ERP compared to the previous period, it was also seen as important to utilize these resources in a way which would be most effective in reviving the industrial sector. For the industrial sector, the principle of allocating foreign exchange to efficient firms engaged in high priority activities was adopted. These resources would be earmarked largely for the importation of essential inputs necessary to keep these industries operating at higher levels than before. For this purpose, it was envisaged that the manufacturing sector would be allocated US$ 148.7 million in 1986/87, US$ 151.7 million in 1987/88 and US$ 157.7 million in 1988/89. Apart from these intermediate inputs, some foreign exchange was planned for financing rehabilitation and investments which were regarded as instrumental in removing specific bottlenecks in the production. The amount of foreign exchange resources envisaged for this purpose was US$ 67.5 million in 1986/87, US$ 21.8 million in 1987/88 and US$ 40.6 million in 1988/89.

Within the manufacturing sector, the allocation of foreign exchange for recurrent inputs and for rehabilitation/investment during 1986/87 was envisaged as listed in table 2.1.

For the purpose of maximizing the effectiveness of foreign exchange resources allocated to industry, high priority activities in the industrial sector were identified as:

(i) industries which engage in the production of incentive goods (e.g. soap, textiles, cooking oil);

(ii) net earners of foreign exchange through exports;

(iii) earners of government revenue (e.g. breweries, soft drinks, cigarettes);

Table 2.1: Foreign exchange allocation in the manufacturing sector, 1986/87

	Allocations for recurrent inputs		Allocations for rehabilitation/investment	
	US$ millions	% of total manufacturing	US$ millions	% of total manufacturing
Food, beverages and tobacco	23.0	15.5	11.7	17.3
Textiles and leather	16.6	11.2	9.6	14.2
Paper and printing	5.7	3.8	3.0	4.4
Chemicals and petrol	39.4	26.5	8.9	13.2
Non-metallic mineral products	6.9	4.6	4.5	6.7
Metals, machinery and equipment	45.1	30.3	9.6	14.2
Others	12.0	8.1	20.2	30.0
Total	148.7	100.0	67.5	100.0

Source: MFEAP, Economic Recovery Programme. Dar es Salaam, 1986.

(iv) industries which produce intermediate inputs, raw materials and equipment in support of agricultural production (e.g. fertilizer, farm implements, transport equipment, tyres and tubes, bags);

(v) industries producing essential consumer goods (e.g. packaging materials, leather).

During the first year of the ERP, the impact on industrial output was limited by the fact that only 50 per cent of the expected funds were actually made available for the sector, largely due to delays in disbursement. During 1987, the second year of the ERP, manufacturing value added increased by 4.2 per cent, compared to a decline of 4.05 per cent in the previous year. The increased output in 1987 is largely a result of improved access to foreign exchange for imported inputs mainly under import support arrangements. The retention scheme and own-fund imports also played a role.

Some of the industries which demonstrated considerable output recovery during 1987 include automobile batteries (22.6 per cent increase over output of the previous year), soap (50 per cent), corrugated iron sheets (86.5 per cent), cement (12.6 per cent), bags (42.9 per cent), hoes (18.8 per cent), tyres and tubes (25.2 per cent), blankets (6.3 per cent), radios (44 per cent), soft drinks (21.8 per cent), and fish-nets (42.9 per cent). Recovery in the industrial sector has favoured the category of priority industries as defined in the Economic Recovery Programme; those activities which fall under this category experienced recovery to levels which were well above the average of 4.2 per cent attained for the manufacturing sector as a whole.

As part of the ERP, selected sector reviews were made in order to facilitate negotiations for multisectoral rehabilitation credit from the World Bank. The industrial sector report which was the outcome of the first review of the sector recommended industrial restructuring on two fronts. First, priority would be accorded to selected agro-based and local resource-based industries, with special reference to three subsectors (i.e. leather and shoes, textiles and vegetable oils). Second, policy changes should be made in the direction of more trade liberalization, review of the tariff structure and less reliance on the administrative allocation of foreign exchange (e.g. by expanding the list of items which could be imported under the Open General Licence). The World Bank set aside US$ 80 million as Industrial Rehabilitation and Trade Adjustment Credit and earmarked a supplementary credit of US$ 60 million to support the Open General Licence (OGL) system. Implementation of restructuring on these two fronts is in progress.

2.2 Political structure, decision-making and economic policy formulation

The ruling Party (Chama Cha Mapinduzi) is the supreme body in matters of broad policy-making. The guidelines given by the CCM are translated into programmes of action by the Government departments.

Within the Party, the main executive body is the National Executive Committee (NEC), which is serviced by specialized secretariats. One of the secretariats is responsible for economic policy matters.

Within the Government, the Cabinet is responsible for economic policy-making. Any sectoral policy which the relevant sectoral Ministry proposes must first be presented to the Cabinet and approved before it can be implemented. However, in cases where policy proposals are regarded as fundamental, such proposals are submitted to the Party for approval and/or comments before they are implemented.

The Ministry of Finance, Economic Affairs and Planning (MFEAP) acts as co-ordinator of other ministries in the preparation of plans and programmes. On the basis of broad policy guidelines from the Party, the MFEAP issues more elaborate plan guidelines to the sectoral Ministries. Each sectoral ministry issues more detailed and sector-specific guidelines to the parastatal enterprises under its jurisdiction. On the basis of these guidelines, company plans are formulated and submitted to the relevant ministry, which co-ordinates and rationalizes them into a sectoral plan. These sectoral plans are then submitted to MFEAP for further scrutiny and co-ordination. The approved programmes at this stage are submitted to the Cabinet and to Parliament for final approval. The Party examines and comments on the draft plans, and such comments are incorporated before the final plan document is approved by the Government.

The guiding principle for the economic policy-making bodies is the Arusha Declaration of 1967, which is based on the policy of "socialism and self-reliance." The subsequent policies emanating from the Party and Government have been specific elaborations of socialism and self-reliance in concrete terms, taking account of changing circumstances. The Party Programme (1987-2002), for instance, specifically states that its main objective is to enhance the implementation of the Arusha Declaration by formulating more elaborate tactics and strategies for its implementation. The Party Programme is in this sense based on twenty years' experience with the Arusha Declaration.

With respect to the strategy and policy towards industrial development, the Party Programme (1987-2002) has put priority on basic industries (e.g. steel from iron ore, coal, building materials, chemical industries, metal and engineering industries) as the basis for manufacture of machines and equipment and industries for producing essential (i.e. basic needs-oriented) consumer goods. The Second Union Five-Year Development Plan (1988/89-1992/93) has been formulated by the Government taking the Party Programme as the guideline.

In order to improve co-ordination in economic policy formulation, the Government created in February 1989 a Planning Commission in the President's office, with the President as its Chairman. The former Minister of Finance, Economic Affairs and Planning was appointed Minister of Finance and Economic Affairs, and planning functions were placed under the new Planning Commission.

2.3 The changing role of public and private sectors

In Tanzania, as in many other countries including industrialized countries, the role of public and private sectors in socio-economic development has undergone important changes since the beginning of the 1960s. During the 1960s and the 1970s, the role of the public sector in most countries increased significantly, as measured, for example, by the share of taxes and public investment in GNP. In the 1980s a reverse trend can be observed.

During the first years after independence, the Government of Tanzania assumed an important and increasing role in planning. Still, the private sector remained the most important one in economic development. However, when the rate of investment during the first years after independence did not increase as planned and substantial income differences remained, one policy option was to increase the role of the state in economic development.

Thus, the 1967 Arusha Declaration set the course for nationalization of industry, commerce and finance, together with the establishment of parastatals and the policy of villageization. The increasing role of the state is evidenced by the fact that the number of parastatals increased from about 43 in 1966 to 380 in 1979 and to over 410 in 1988. The public share of value added in industry is estimated to have increased from 5 per cent in 1966 to 32 per cent in 1973. In the Second Five-Year Plan (1969-1974), 88 per cent of industrial investments were planned for parastatals. As a result, the industrial sector today is dominated by mixed companies in which the Government has a majority shareholding. The banking system, which is also nationalized in Tanzania, consists of the Bank of Tanzania as Central Bank and the National Bank of Commerce as the main commercial bank. Among other financial institutions can be mentioned the Co-operative and Rural Development Bank, the Tanzania Investment Bank, and the Tanzania Housing Bank.

During the period from 1967 until the beginning of the 1980s, which was marked by an increasing role of the state in overall development, high priority was assigned to industrial growth. However, the rapid deterioration in the economic situation after 1977, and the persistence of economic difficulties and serious disequilibria led to an overall reappraisal of the respective roles of the public and private sectors in socio-economic development. Although there is general agreement on the need to redefine their respective roles, it is far less clear what these roles should be. Some important changes have already been introduced and others are being discussed at the various party and government levels. This process of restructuring the roles of the public and private sectors, which can be traced back to the beginning of the 1980s, has only begun.

The private sector is being assigned an increasing role in Tanzania's overall development, a policy that has been reinforced through the introduction of several recent measures. The own-import scheme permits the import of goods if the importer has access to foreign exchange. The OGL facility enables Tanzanian enterprises to import a range of goods up to a maximum value of US$ 500,000, provided the corresponding amount in Tanzanian shillings is deposited with the Bank of Tanzania. Although there were initially some difficulties with this system, as evidenced by long delays in allocating funds, the rate of utilization of funds has increased substantially since 1988, and the range of goods which can be imported by private sector firms has been enlarged. Confinement, whereby the state monopolized trade for many goods, has been reduced considerably. The Export Retention Scheme enables enterprises to keep part of the foreign exchange earned through exports. Prices have been liberalized, which will permit enterprises to face market constraints rather than administratively fixed prices. The Government has supported the creation of the Tanzanian Chamber of Commerce, Industry and Agriculture and has invited the private sector to participate in the development efforts of Tanzania. Although not an explicit policy, it seems that the Government would be willing to discuss privatization of some parastatals. It remains for the private sector to demonstrate its capacity to assume a more dynamic role in Tanzanian development.

The official policy is that the banking system will remain public, and that it is to be made more efficient. The extent to which private commercial banks will be permitted in the future is still an open question. The Government has expressed concern over the need to restructure the banking and financial system in order to cope with the changing economic situation, and to this effect has set up a Presidential Commission to study the structure of the banking and financial system and to make the necessary recommendations.

Although the scope for a significant inflow of private capital seems limited, some areas could attract investors. It is probable that foreign investors entering the export sector can negotiate an agreement by which they can remit dividends and use foreign exchange to purchase goods and services abroad. It is not likely, however, that foreign private investors will make significant investments in production for the domestic market, unless aid packages can be designed to attract investors and mechanisms can be put in place for repatriation of profits in practice.

Large-scale foreign investments are needed to rehabilitate Tanzanian industry and infrastructure. The extent to which resources from bilateral and multilateral aid as well as from financial institutions will suffice remains an open question. In this respect, the role of foreign capital in Tanzanian development has yet to be defined in operational terms, although important initiatives have been taken to this end, and new laws regarding private investment are expected to be passed soon, both on the Tanzanian mainland and in Zanzibar. To the extent that a significant inflow of foreign private capital is needed, a suitable investment climate must be created in Tanzania to attract it.

2.4 Financial and pricing policies

One major objective of the Government has been to reduce the budget deficit, which has created inflationary pressures in the economy. According to the ERP, the overall budget deficit as a percentage of GDP was 12 per cent in 1978/79 - 1981/82. With respect to the recurrent budget, the following data, taken from a speech by the Minister of Finance in June 1988, provides information on trends in both recurrent revenues and expenditures.

Table 2.4: Trend of Government recurrent budget
(millions of Tanzanian shillings)

	Recurrent revenues	Recurrent expenditures	Recurrent revenues as % of recurrent expenditures
1979/80	7,759	7,534	103
1980/81	7,934	9,789	81
1981/82	9,977	13,214	76
1982/83	10,600	14,589	73
1983/84	15,466	18,182	85
1984/85	18,000	20,674	87
1985/86	22,321	27,403	81
1987/88 (est.)	46,829	61,765	76

Source: Ministry of Finance.

In spite of the efforts of the Government to reduce the budget deficit, it has remained high since the beginning of the 1980s. In fact, as can be seen from the above table, current revenues cover only about 80 per cent of expenditures. Among measures to increase revenues can be mentioned increases in taxes, particularly on beverages, pricing of public services, and efforts to combat tax evasion.

Current tax rates in Tanzania can be considered high. There is a general sales tax (not based on value added) amounting to 60 per cent. The corporate profit tax is 50 per cent. Personal marginal income taxes have ranged between 20-75 per cent. During the 1988/89 budget, this range has been reduced to 15-55 per cent.

The scope for a further broadening of the tax base seems restricted and, since tax rates are already considered to be high if not excessive, there remains a possible need to reduce Government expenditures if the budget deficit is to be made more manageable. However, most parastatals do not contribute to the national budget, but rather receive substantial resources in various forms. Thus, many enterprises which should provide substantial revenues are instead draining the country of scarce resources. It is in this context that the rehabilitation of the industrial sector becomes particularly important.

The budget deficit, which is about 30 per cent per year, has been one of the major causes of inflation in Tanzania. Compared to inflation rates in many other developing countries, this inflation rate is moderate. For many years the nominal rate of interest charged by the banking system was below the rate of inflation. In this way, the Government was subsidizing credit which mainly benefited the parastatals. In recent years, the nominal rates of interest have been revised upwards; during 1988, for instance, interest rates were increased to about 25-30 per cent. This has shifted the interest rates towards a positive rate, especially if the rate of inflation can be brought down to 20-25 per cent as envisaged in the ERP.

The increasing role of the State in Tanzanian development in the 1976-1980 period was also extended to prices, including foreign exchange rates. A large number of goods had official prices which over time became significantly lower than the market price. As a result, parallel markets developed rapidly. This process continued until the beginning of the 1980s, when a process of liberalization of prices began. Since then, the number of items whose prices are controlled by the Government decreased from about 400 to 11 items (following the most recent removal of price controls, from textiles, in February 1989). The commodities which remain under some form of price control are as follows:

1. Beer
2. Steel rolling-mill products (including bars, angles and flats for the construction industry)
3. Galvanized corrugated iron sheets
4. Cement
5. Cables
6. Farm implements
7. Tyres and tubes
8. Car batteries
10. Petroleum products
11. Fertilizers

The practical difficulties in establishing a reasonably well-functioning price control system are well known and need not be discussed here. The negative effects on resource allocation, the spread of parallel markets, the growth of illegal border trade, and the negative effects on economic growth are well documented. The present trend in Tanzania to rely on markets to balance the supply and demand of goods and services is likely to be continued. The Economic Recovery Programme states "Exchange rate action ... is desirable as long as there is over-valuation in the Tanzanian shilling". In fact, the exchange rate has been increased from TSh 17 in March 1986 to about TSh 130 : US$ 1 in March 1989. Since 1986, the gap between the parallel and the official rates has been reduced, although it still remains significant. Measures have been taken to alleviate the inflationary effects of recent devaluations, including steps to reduce domestic demand through limiting credit expansion and nominal wage increases, and to reduce the budget deficit.

The short-run reduction in aggregate demand and in the standard of living for large segments of the population which would result from rapid liberalization of the market for foreign exchange would be resisted by most developing countries, and Tanzania is no exception in this regard. It is therefore not expected that the foreign exchange markets in Tanzania will be liberalized within the near future.

2.5 Foreign exchange and external debt problems

The export sector has performed poorly during the 1980s, showing considerable yearly fluctuations and no clear growth trend. To finance its imports, Tanzania has always relied to a large extent on development assistance. As can be seen from table 2.5.1, the export deficit has been approximately equal to the level of development assistance throughout the period from 1982 through 1987.

Table 2.5.1: The importance of aid in Tanzanian development
(millions of US dollars)

	1982	1983	1984	1985	1986	1987
1. Exports	415.4	379.7	388.3	285.6	347.6	347.0
2. Imports	1112.8	814.5	874.0	999.2	1047.5	1092.0
3. Net exports (imports)	(697.4)	(434.8)	(485.7)	(713.6)	(699.9)	(745.0)
4. Development assistance	693.8	601.4	565.7	494.7	772.2	750.0
5. Exports as per cent of development assistance	60	63	69	58	45	46

Note: Since 1984, own funding of imports has been permitted. Such imports may well have reached a magnitude of several hundred million dollars.

Source: UNDP and Bank of Tanzania.

Even at present levels of imports, the economy is showing strain, as evidenced by the lack of key imports for the industrial sector and the reported backlog of needed investments in infrastructure.

In addition to the problem of persistent import surpluses, Tanzania has experienced a rapid increase in its level of foreign debt, as is shown in table 2.5.2.

Table 2.5.2: Tanzania's public external debt, 1981-1986
(millions of US dollars)

	1981	1982	1983	1984	1985	1986
1. Total debt (disbursed)	2,210	2,385	2,671	2,682	3,075	3,650
of which:						
2. official debt	1,751	1,864	2,158	2,178	2,488	3,264
3. private debt	459	521	513	504	587	386
4. private debt as per cent of total debt	21	22	19	19	19	11
5. Disbursed debt as per cent of GNP	37	38	44	49	50	85

Source: World Bank, *World Debt Tables*.

The above table shows that total external debt rose from US$ 2.2 to 3.7 billion in six years. By 1986, it represented 85 per cent of Tanzania's GNP. In 1988 external debt is estimated at US$ 5 billion, or about 100 per cent of GNP. Private debts account for a decreasing share in the total external debt.

For many years to come, a continued massive inflow of foreign exchange is likely to be needed to maintain present economic levels and also to secure a minimum of economic growth. It also seems plausible to assume that the foreign public debt will continue to increase.

The industrial sector is in great need of rehabilitation. This implies rehabilitating those enterprises which would have a good chance of becoming viable in a competitive environment. Concerted action is needed to establish criteria for industrial rehabilitation.

Some of the existing enterprises may only have a minimal chance of becoming viable, while others could be good candidates for rehabilitation. The risk remains that resources will continue to be channelled to inefficient enterprises which have little possibility of rehabilitation, and that the resources available to good candidates for rehabilitation would be reduced accordingly.

2.6. Human resource development needs

Compared to most other African countries, Tanzania's human resources are well developed, and are being applied in a way which enables its relatively well-trained people to make a significant contribution toward economic regeneration. Nevertheless, there are constraints in this regard which must be addressed. Management which is capable of operating in a competitive environment is scarce. Entrepreneurial skills, although difficult to define, need to be further developed. The lack of technological know-how is another limiting factor in industrial growth. Taken together, these less tangible skills are needed for successful industrial rehabilitation; the possibilities for rehabilitation within each enterprise will be conditioned by the availability of these skills.

Taking into account these needs for human resource development, as well as the other financial and technological constraints described earlier, the scope for industrial rehabilitation in Tanzania should be examined carefully, with the aim of securing maximum developmental effects from the allocation of scarce foreign exchange for industrial rehabilitation ventures.

CHAPTER 3

OVERVIEW OF INDUSTRIAL REHABILITATION IN ZANZIBAR

3.1 General characteristics

Zanzibar and its sister island, Pemba, lie 6 degrees south of the equator in the Indian Ocean, about 32 kms off the east African coast and 97 km north of Dar es Salaam. The islands have an equatorial climate, with a rainy season extending from March to the end of May.

The Arab influence has always been particularly strong in Zanzibar, which became the capital of the Sultanate of Oman in the nineteenth century. In 1890, the Sultanate became a British Protectorate. In 1964 it became independent and united with Tanganyika to form the United Republic of Tanzania.

Zanzibar has a population of about 650,000, of which 110,000 live in Zanzibar town, its capital.

Zanzibar and Pemba together have their own government and president. The Constitution of the United Republic of Tanzania stipulates that, whenever the President of the Republic is from the the mainland, then the Vice-President must be from Zanzibar, and vice-versa. The current President - Ali Hassan Mwinyi - is from Zanzibar.

3.2 Economic profile

In terms of size, Zanzibar represents only a small element in the Union, having only 3 per cent of the population and approximately 4 per cent of the combined GDP. Per capita incomes are, however, some 50 per cent higher than on the mainland.

Until the 1980s, Zanzibar had a relatively stronger economy than the mainland, primarily due to its international monopoly of the trade in cloves. This monopoly cushioned it to a great extent from the severe economic decline which occurred on the mainland. However, the strong downward pressure on clove prices experienced in the mid-1980s as a result of reduced demand in Indonesia has created enormous problems for the Government of Zanzibar and has forced it to reappraise its economic policies.

An examination of economic trends in Zanzibar reveals that GDP declined in real terms by 25 per cent between 1976 and 1986, and that there is a declining trend in real investment. There has been a steady deterioration in the balance of payments, with foreign exchange reserves falling from US$ 39 million in 1980 to US$ 26 million in 1987.

While the primary cause of these problems has been the deterioration in the revenues generated by cloves exports, Zanzibar has also suffered from the negative effects of economic policies pursued on the mainland, including:

- the overconcentration of production and trade in the public sector and the detrimental effects this has had on private initiatives;

- declining government revenues and a rapidly rising population;

- rigidity in the pricing system, which failed to provide adequate incentives to producers;

- irrational and arbitrary allocation of foreign exchange.

Moreover, the deterioration in the economy has resulted from the inefficient use of the revenues generated through cloves exports. These have been largely consumed through the importation of rice, which has been sold at subsidized prices, the provision of free basic services, and the continued employment of surplus staff.

Given the likelihood that revenues from cloves exports will stabilize at around US$ 8 million per year in the medium term, compared with an average of US$ 16 million per year over the last five years, the Government has started to take steps to bring about some restructuring of the economy. In addition to adopting the general Economic Recovery Programme being pursued on the mainland, it has commissioned its own Economic Recovery Programme, which is designed to exploit the considerable resource potential of the islands and to upgrade their infrastructure. A new foreign investment code is also in the final stages of drafting and should be released in the not too distant future.

3.3 Strategic sectors

(a) Agriculture

Agricultural production has stagnated in recent years, due to competition from increasing imports of heavily subsidized rice, low producer prices paid to farmers, and lack of investment in supporting infrastructure.

While cassava, bananas, sweet potatoes and yams are the major food crops, the attainment of food self-sufficiency has been hampered by the strong consumer preference for rice.

With respect to cash crops, the principal export is cloves, although prices have fallen to a third of those in the 1980s, due to reduced demand from Indonesia. Future prospects suggest a market of around 6000 tons and the government is taking steps to raise producer prices in order to increase and stabilize production.

Coconuts are the second largest cash crop. Purchases of copra have declined substantially, due to a fall of over 50 per cent in real terms in the producer price.

(b) Fisheries

Tanzania's annual catch, estimated at between 18,000 and 20,000 tons, provides an important source of protein. Most of the fish are caught through traditional techniques, although government attention has increasingly concentrated on strengthening the Zanzibar Fisheries Corporation, which operates a fleet of seven modern fishing boats.

(c) Tourism

Zanzibar's climate, fine beaches and historical heritage offer substantial tourism potential. Between 1982 and 1986, the number of tourists increased from 5,000 to 23,000, with the largest proportion coming from

Europe. While present hotel accommodation is below international standards and in need of refurbishment, new hotels are being constructed which should make the islands more attractive. A new hotel complex funded by the Aga Khan Fund for Economic Development is being constructed near Zanzibar town.

(d) Infrastructure

Zanzibar's transport and communications system has deteriorated rapidly over the last 25 years due to lack of maintenance and inadequate investment. This has severely hampered communications with the island and acted as a major constraint on agricultural production.

In recent years, however, investment has greatly increased. Work on lengthening the runway and upgrading facilities at Zanzibar airport began in January 1989, financed by a US$ 5 million grant from Oman, and work on rehabilitating the EC-financed port facilities at Zanzibar and Pemba is expected to be completed in 1990.

Access to the island has improved with the introduction of a hydrofoil service between Dar es Salaam, Zanzibar, Tanga and Mombasa, although this has as yet proved irregular, and a more reliable service needs to be established. This should improve when a new hydrofoil service is introduced later in 1989.

Extension of the airport runway and improvement of port facilities will permit more direct links with other countries in the future.

3.4 The manufacturing sector

The manufacturing sector in Zanzibar is primarily oriented towards the production of consumer goods; its processed products include coconut oil, soap and detergents, sugar, animal feed, cigarettes, shoes, dairy products and beverages.

All these subsectors are run by parastatals, of which there are presently six. These were established in an environment of surplus foreign exchange and enjoyed preferential status vis-à-vis the private sector in terms of resource allocation. Unfortunately, as the external situation of the Union deteriorated and foreign exchange became increasingly scarce, these plants have been starved of inputs and production has dropped dramatically. Furthermore, the deterioration in the transport network, combined with low producer prices offered to farmers, caused a severe shortfall in the supply of raw materials for processing.

Coconut oil production, for example, declined from 3,558 tons in 1983 to 1,645 tons in 1985, while that of soap and detergents declined from 2,172 tons to 14 tons over the same period. Cigarette production declined from 97 million in 1982 to 7 million in 1985.

Economic decline has also been severe in the Jitegemee Small-Scale Industrial Estate, which was established in 1973/1974 with the assistance of the Government of India. Most of the units have now stopped operation, and the five that are still working are doing so at well below capacity. The hydrogenated oil plant has still to be commissioned. Like the public sector, this estate has suffered from lack of foreign exchange, the inexperience of staff, inadequate supply of inputs, and increasing competition from the private sector.

The Economic Recovery Programme proposed by the consultants employed by the Government of Zanzibar include the following proposals for the industrial sector:

- reappraisal of the role of parastatals and the closing down of inefficient enterprises;

- closing down of all but two units at the Jitegemee Small-Scale Industrial Estate;

- efforts to attract private investors to purchase part or full control of viable parastatals.

Some progress has been made in rehabilitating the industrial sector, and China is actively involved in the rehabilitation of the Mahonda sugar mill and its sugar cane fields. It is also lending its support to the rehabilitation of the leather and shoe factory. Consideration is also being given to providing cotton seeds from the mainland as a substitute input to the Saateni oil processing mill, although it would appear to be a simpler proposition to provide coconut producers with adequate incentives.

In summary, Zanzibar offers significant potential for industrial investors, in view of the renewed climate of economic liberalization. It has a good natural resource base; well-established trading links, particularly with Oman; infrastructural links which are being improved; and a dynamic and resourceful planning department.

CHAPTER 4

THE MANUFACTURING SECTOR AND ITS REHABILITATION

4.1 Overall characteristics

Industrial growth in Tanzania can be divided into four phases. From 1961 to 1973, there was a period of rapid growth, with manufacturing value added increasing by an average of 10 per cent per year and the manufacturing sector's share of GDP rising from 4 to 10 per cent. Between 1974 and 1979, production stagnated, with the GDP contribution declining to 9 per cent. Thereafter value added in industry decreased rapidly, at an average rate of about 5 per cent per year, with a corresponding decline in the share of GDP to 5 per cent in 1986. Since 1987, however, there has been an upturn in industrial performance, with value added rising by approximately 4 per cent in 1987 and continuing to grow at approximately the same rate in 1988.

While the Basic Industries Strategy (BIS), adopted in 1974, was designed to bring about a structural transformation of industry, with the emphasis on self-reliance, greater domestic production of consumer goods and stronger linkages, industrial production stagnated due to the heavy import content of new industrial investments and acute shortages of foreign exchange. As a result, the situation in the early 1980s was one of an oversized industrial sector receiving excessive amounts of domestic resources and imports, yet functioning at an extremely low level of capacity utilization due to the deteriorating external environment and the concomitant foreign exchange deficit. Furthermore, lack of investments in the infrastructural sector led to an acute deterioration particularly in transport networks, which in turn exacerbated the already deteriorating performance of industry.

Since 1986, however, there have been encouraging signs of economic revival in the industrial sector, as a direct result of the Economic Recovery Programme. While this has entailed a substantial reduction in resource allocations to industry, investments in other sectors, particularly agriculture and transport, together with the rehabilitation of industrial enterprises, have reduced some of the major production bottlenecks.

In examining the structure of the manufacturing sector (table 4.1), it is apparent that this is dominated by two subsectors - food and beverages, and textiles. In 1986, the former accounted for 31.8 per cent of gross output and 33.5 per cent of manufacturing value added, while the figures for the latter were 16.0 per cent and 16.2 per cent respectively. These two subsectors thus have accounted for more than 60 per cent of total manufacturing employment. Other significant subsectors include petroleum products and chemicals, basic metals and metal products and transport equipment.

It would appear that the overall structure of manufacturing production, despite large-scale investments in new plant in the 1970s, has undergone very little change in terms of value added calculations in domestic prices. However, measured in world prices, there has been a significant change in the structure, with the consumer goods share of value added increasing from 56 per cent in 1965 to 85 per cent in 1984 while the share of the intermediate goods subsector declined from 40 per cent to 11 per cent over the same period. This was due to the fact that extremely high protection was afforded firms producing at a negative value added in world prices.

Table 4.1: Structure of the manufacturing sector
(percentage)

(Key to subsectors given below the table)

ISIC Code	Sub-sector	Share of gross output 1984	1985	1986	Share of value added 1984	1985	1986	Share of employment 1984	1985	1986
311-312	1	22.6	22.7	22.7	20.4	20.4	20.2	20.5	18.7	18.7
313-314	2	8.8	9.1	9.1	11.9	12.9	13.3	7.1	9.2	9.2
321-322	3	16.4	16.1	16.0	19.4	16.4	16.2	34.5	34.5	34.5
323-324	4	4.5	3.7	3.7	3.4	3.5	3.5	5.8	5.9	5.9
331-332	5	2.5	2.4	2.4	2.5	3.0	3.4	5.3	5.3	5.3
341-342	6	5.2	5.8	5.8	7.7	7.0	7.0	4.5	4.6	4.6
351-353	7	11.6	10.6	10.6	12.9	11.0	11.0	5.8	5.2	4.6
355	8	2.1	3.3	3.4	2.1	4.0	4.0	0.9	0.9	1.0
356	9	0.7	0.6	0.6	1.0	0.6	0.6	0.7	0.6	0.6
361-362, 319	10	4.8	5.2	5.2	1.7	1.5	1.2	3.3	3.7	3.7
371-372, 381	11	11.7	9.8	9.8	8.8	9.1	9.1	4.5	4.8	4.8
382-383	12	3.4	4.1	3.5	3.7	3.4	3.5	2.6	2.8	2.8
384	13	3.7	7.6	6.4	4.1	6.6	6.6	4.0	3.4	3.4
385, 390	14	0.8	0.7	0.7	0.5	0.6	0.6	0.9	0.9	0.9

Key:
1 Manufactured food products
2 Beverage and tobacco products
3 Textiles and wearing apparel
4 Leather products, including footwear
5 Wood and wood products
6 Paper and paper products; printing and publishing
7 Industrial and other chemicals
8 Rubber products
9 Plastic products
10 Pottery, china, earthenware and glass products
11 Metals, ferrous and non-ferrous
12 Machinery, including electrical machinery
13 Transport equipment
14 Professional and scientific equipment

Source: MFEAP, Economic Survey 1987. Dar es Salaam, June 1988.

Manufacturing employment in Tanzania grew from 28,000 in 1965 to 84,000 in 1977 and then stabilized at approximately 100,000, which would account for about 1.5 per cent of the labour force. Despite the substantial drop in production during the 1970s, employment was not significantly affected, with the result that the industrial sector has been overburdened with surplus labour. This has resulted in a significant decline in productivity levels. There are signs, however, that employment in industry has been decreasing, with the 1985 figure standing at 94,097, although it subsequently picked up a bit, rising to 96,271 in 1986 (Economic Survey 1987).

Small-scale industries have played an important role in Tanzania's overall drive for self-reliance. According to the last census of manufacturing (1978), there were 1600 small-scale enterprises employing 24,500 persons (21.5 per cent of employment in manufacturing) and contributing 9.8 per cent to manufacturing value added. While a significant decline was experienced in this subsector, productivity levels and value added per employee remained stable. The small-scale industries, therefore, seem to have adjusted more efficiently to the changing economic climate. However, it should be noted that there are problems with official statistics regarding small industries (e.g. uneven coverage of the censuses by regions, omission of units employing less than 5 persons, etc.)

4.2 Major problems and constraints

Problems affecting the performance of the manufacturing sector are the result of over-ambitious industrial policies pursued in the 1970s and the deteriorating economic environment in which the sector has had to operate. Although the ERP has provided a framework for the regeneration of the economy, this is still in its embryonic stage and many of the problems persist. These include:

(a) Oversized industries with a high import dependency

Policies pursued following the Basic Industries Strategy led to a proliferation of oversized, capital-intensive plants with an excessive dependence on imports. Rather than bringing about the desired level of structural transformation, they reinforced the existing structure and significantly increased the dominance of the consumer goods sector. Large-scale investments in the intermediate and capital goods sector have not produced the contribution to value added that was anticipated.

(b) Foreign exchange shortages

The deterioration in the balance of payments in the 1970s and early 1980s, combined with high debt repayments, caused an acute shortage of foreign exchange. As a result, the manufacturing sector has been unable to purchase the spare parts and production inputs necessary to run plants. Given that the new enterprises developed under the BIS were heavily import-dependent, the lack of foreign exchange has exacerbated the difficulties of these firms.

(c) Devaluation

The progressive devaluation of the Tanzanian shilling from its overvalued rate in the 1970s and early 1980s made imports more expensive and reduced the supplies of spares and production inputs to those enterprises whose liquidity position has weakened as a result.

(d) Agricultural bottlenecks

The over-emphasis on the industrial sector, combined with the relative neglect of the agricultural sector (e.g. low producer prices and low investments), has resulted in a significant decline in agricultural production. As a result, processing plants have been faced with substantial shortfalls in raw material inputs. While this problem could be partially overcome with an over-valued exchange rate and greater use of imports, the continuing devaluation of the shilling has made this an unattractive proposition. Under the ERP, a major proportion (25-30 per cent) of investments are to be channelled to the agricultural sector and producer prices have been raised. It will take time, however, for these policy changes to bring about sufficient marketable surpluses.

(e) Transport bottlenecks

Lack of investment in infrastructure has led to a rapid deterioration in the transport network. As a result, raw materials are unable to reach the processing plants, finished goods are cut off from their markets and high transport costs are incurred in production. Plants are often unable to operate at reasonable utilization levels due to obstacles in the supply of raw materials and their inability to transport the finished products to their market outlets. An example of this problem is the cotton gins, whose rate of plant utilization is low due to major bottlenecks on the rail line to the east.

(f) Organizational weaknesses

The 1970s saw the transfer of most of the major production units to the public sector and the proliferation of parastatals. Given preferential status in resource allocation and higher levels of protection from international competition, some of them have, however, performed quite inefficiently and have incurred excessive losses. Their decision-making process is cumbersome, and some units are overstaffed and inefficient. Enterprises operating under the major holding corporations are also cushioned from the realities of economic survival.

(g) Private sector discrimination

While the problems of the public sector have grown more and more acute, the private sector has not been actively supported. In practice, the private sector has faced severe problems, particularly in terms of foreign exchange allocation and access to finance.

(h) Management weaknesses

Public sector managers have not been exposed until recently to the harsh realities of running enterprises in a highly competitive environment, and thus have limited managerial experience. Furthermore, management information systems and cost control procedures are acutely lacking, due to the cumbersome organizational structures of the parent parastatals.

The present Economic Recovery Programme has, however, focused on resolving many of these problems in order to bring about the rehabilitation of the manufacturing sector. Access to foreign exchange has been improved by the introduction of the Export Retention Scheme and the Open General Licence system, which have reduced administrative controls. Agricultural bottlenecks are gradually being removed through higher producer prices, market liberalization, and improvements in the trunk and feeder road system. Efforts are being made to improve the performance of the parastatal enterprises.

4.3 Linkages

The Tanzanian manufacturing sector is heavily dependent on the country's natural resource base, which is extensive although significantly underutilized.

There are numerous examples of small industry based on locally produced inputs. Cotton and sisal are used in the manufacture of textiles. The paper and packaging industry uses domestic wood and recycled paper. The food, beverage and tobacco subsector relies heavily on domestic supplies of meat, fish, fruits and vegetables, grains, tobacco, dairy products, oils and sugar. The sawmills rely on domestic timber production.

The larger manufacturing industries are also, to some extent, based on local resources: for example, the cement industry is based on indigenous limestone and gypsum, the glass industry on local silica, and fertilizers on local phosphate rock.

Tanzania has many natural resources, although the rapid deterioration in the transport network, combined with low agricultural output and an overvalued exchange rate in the 1980s, reduced the supply of production inputs to the manufacturing sector and made imports more attractive. While steps have been taken to raise producer prices and adjust the exchange rate, there are still severe shortfalls in supply. As a result, manufacturing industry is still heavily dependent on imports (i.e. approximately 70 per cent in 1984 in world prices)

Forward linkages are very limited, although some examples are to be found: the textiles, paper and chemicals industries which supply the packaging industry, the sawmills which provide intermediate inputs for furniture and packaging, and the tanneries which supply the leather industries.

4.4 Spatial distribution

Table 4.4 shows the overall distribution of the industrial sector in Tanzania. It shows that Dar es Salaam has the largest concentration of industrial establishments (259, or about one third of the 776 throughout Tanzania), particularly in the food, beverage, textiles, paper and printing, fabricated metal products and transport equipment subsectors. The Dar es Salaam region also contains the largest concentration of private sector establishments.

Following Dar es Salaam, the next most important industrial centres in Tanzania are in Tanga (102 establishments), Arusha (71), Kilimanjaro and Mwanza (63 each). In all these centres, food, beverages, tobacco and textiles are important, although Tanga's major industry is the fertilizer plant and the steel-rolling mill. Areas where there is little industrial development include Kigoma, Mtwara, Rukwa, Ruvuma, Singida and Dodomo, each with less than 10 establishments.

Table 4.4: Number of establishments in industry by region

(Key for industries after table)

Region	Type of Industry														Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Arusha	3	15	7	4	9	5	4	1	3	7	5	4	2	2	71
Coast	-	3	3	-	-	1	-	-	-	-	-	-	-	3	10
Dar es Salaam	6	36	54	9	29	32	16	8	7	26	3	4	16	13	259
Dodoma	-	4	1	-	2	-	-	-	-	-	-	-	-	2	9
Iringa	-	10	1	-	2	-	3	1	-	1	-	-	-	2	20
Kagera	-	5	1	-	1	1	1	-	-	-	-	-	-	1	10
Kigoma	1	2	1	-	-	-	-	-	-	-	-	-	-	2	6
Kilimanjaro	5	11	13	5	14	3	3	1	1	4	1	-	1	1	63
Lindi	3	3	-	-	4	-	1	-	-	-	-	-	-	-	11
Mara	-	5	4	-	-	1	-	-	-	-	-	-	-	-	10
Mbeya	-	9	4	1	6	-	1	1	1	-	-	1	1	3	28
Morogoro	1	17	9	2	13	2	1	-	2	-	1	-	-	1	49
Mtwara	-	3	-	-	2	1	-	-	-	1	-	-	-	1	8
Mwanza	1	11	22	3	7	4	4	-	1	5	1	-	1	3	63
Rukwa	-	-	-	-	3	-	-	-	-	-	-	-	-	1	4
Ruvuma	-	2	-	-	3	1	-	-	-	2	-	-	-	1	9
Shinyanga	2	8	8	-	5	-	-	-	-	-	-	-	-	1	24
Singida	-	-	1	-	6	-	-	-	-	-	-	-	-	1	8
Tabora	-	3	1	-	6	1	-	-	-	-	-	-	-	1	12
Tanga	-	18	20	1	22	5	14	2	3	3	4	1	3	6	102
Total:	22	165	150	25	134	57	48	14	18	49	15	10	24	45	776

Key:
1. Mining
2. Food, beverages and tobacco
3. Textiles
4. Leather
5. Wood
6. Paper and printing
7. Chemicals
8. Rubber and plastics
9. Non-metallic
10. Iron, steel and metal products
11. Machinery
12. Electrical
13. Transport equipment
14. Miscellaneous

Source: Bureau of Statistics, Survey of Industrial Production, 1982-1983.

Government policy is aimed at achieving a better spatial balance for industrial growth. Having divided the country into six industrial growth zones, the Government has placed emphasis on the Lake Zone (Mara, Mwanza, Shinyanga, and Kagera), Central Zone (Dodoma, Singida, Tabora, Kigoma), South-eastern Zone (Mtwara, Lindi, and Ruvuma), and the South-western Zone (Iringa, Mbeya and Rukwa). Fundamental to the success of this programme will be the rapid rehabilitation of the transport network, so as to overcome the major transport bottlenecks between factories, consumers and suppliers.

The Small Industries Development Organization (SIDO) has also established 17 industrial estates, located in Dar es Salaam, Songea, Arusha, Iringa, Kigoma, Lindi, Mbeya, Mosni, Shinyanga, Singida, Tanga, Sumbawanga, Musoma, Tabora, Morogoro, Mwanza and Mtwara.

4.5 Ownership patterns

The adoption of the Arusha Declaration in 1967 resulted in the transfer of the ownership of major industrial units to the public sector. Prior to this, most manufacturing units were privately owned, although a number of parastatals had already been established, including the National Development Corporation, the National Housing Corporation and several marketing boards and financial/banking institutions. Some were nationalized entirely, others had the Government as the largest shareholder, others were established as new public enterprises. The State assumed overall responsibility for investment in the public sector, although private foreign investment, particularly on the basis of joint ventures, was still permitted.

The result of the Arusha Declaration was the rapid growth in public sector organizations, with the number of parastatals increasing from 43 in 1966 to more than 410 in 1988. A number of economic regulations and controls were introduced at the same time, including central control of investments, administrative allocation of foreign exchange, imports and credit, price and wage controls, which gave preferential treatment to these parastatals. At present, there are 89 operating companies grouped under nine industrial parastatal holding companies which account for most of the public sector participation in the manufacturing sector. For medium- and large-scale industry, the public sector accounts for almost all production in tobacco and iron and steel and over two thirds of production in food and food products, tanneries and leather, paper, glass, cement and rubber.

The main parastatals include:

1. Board of Internal Trade
2. National Chemical Industries
3. National Development Corporation
4. Small Industries Development Organization
5. State Motor Corporation
6. Tanzania Breweries Co. Ltd.
7. Tanzania Karatasi Associated Industries
8. Tanzania Leather Associated Industries
9. Tanzania Saruji Corporation
10. National Textile Corporation
11. Tanzania Wood Industries Corporation
12. National Milling Corporation
13. Tanzania Cigarettes Company
14. Sugar Development Corporation

The 1988 World Bank report on parastatals concluded that 54 per cent of all the activities performed by these organizations in the industrial sector were extremely unproductive in that they produced negative value added when imports were valued at world prices. The World Bank report also found that:

- there were too many parastatals, in view of shortages in managerial skills and lack of resources;

- the parastatals had been protected from domestic competition by exclusive rights to operate in certain fields, and from international competition by import licensing and the foreign exchange allocation system;

- the parastatal organizations operated in an environment with an absence of incentives for efficient performance;

- the plants operated by the parastatals were too large, too capital-intensive, and too dependent upon imported inputs.

The ERP has placed the parastatals under substantial pressure, since access to funding through the budget and credit institutions has been strictly limited, price controls and restrictions on trade and transport have been reduced considerably, and an export retention scheme has been introduced. These changes have strained the financial position of those manufacturing parastatals which could not easily switch to export-oriented activities or improve their efficiency by internal restructuring.

Private sector enterprises are dominant in the manufacture of household products, plastics, paints, soaps, cosmetics, motor vehicle bodies and electrical equipment assembly. They are also dominant in small-scale industries. Recent trends indicate that the ERP is having a positive effect in the private sector, with private sector investments increasing from 60 to 70 per cent of all local investments.

An investment code for both foreign and domestic investors has been prepared by the Government and is expected to be released in the not too distant future.

4.6 Trade in manufactures

The export of manufactured products has not featured in the policy debates in Tanzania as a major policy issue. In the First (1964-1969) and Second (1969-1974) Five-Year Development Plans, the export of manufactured products was generally alluded to with some reference to the processing of primary products so as to increase their value added and their export revenue generation. During the Third Five-Year Development Plan (1975-1981), in which the Basic Industries Strategy was adopted, the role of manufactured exports was regarded as a logical extension of the domestic demand and resource use relationships. This meant that the primary objective of manufactured production would be to utilize domestic resources to produce manufactured goods for the domestic market. The surplus over and above the domestic market requirements would be exported along the logic of the "vent-for-surplus" principle. In practice, this meant that industries were set up primarily to cater for the domestic market, in accordance with import-substitution industrialization principles. There was no deliberate policy to set up industries specifically for export or to choose production technologies targeting specific export markets.

Against this background it was expected that, as the size of the manufacturing sector increased, manufactured exports would also increase as primary product processing advanced to higher stages and as surpluses above domestic market requirements increased. In practice these expectations were realized for some time, as the share of manufactured exports of total exports increased from 9.9 per cent in 1960 to 16.2 per cent in 1965 and further to 23.1 per cent in 1970. This rising trend did not continue into the 1970s, however, and the share of manufactured exports in 1975 dropped to 19.2 per cent, which increased moderately to 23 percent in 1980. With the decline of manufactured output in the 1980s, the shortage of manufactured goods on the domestic market became common. Under these conditions surpluses for export were reduced and even in some cases (e.g. cement, textiles) exports were only realized by starving the domestic market. The result, however, was a general decline of the share of manufactures from 23 percent in 1980 to about 15-17 per cent during 1981-1984. This decline was reinforced by the overvaluation of the shilling, making the export market relatively less attractive. With the introduction since 1984/85 of the export retention scheme, which was particularly favourable to non-traditional exports (mainly manufactures) reinforced by devaluation, there are signs of recovery of exports of manufactures. This has resulted in an increase in the share of manufactures to 18.9 per cent in 1987.

Among manufactured exports, textile and non-metallic products (e.g. cement) have been dominant, with their combined share fluctuating around 50 per cent in the 1980s. The exports of petroleum products (20-30 per cent of all manufactured exports) were essentially exports of the surplus products of the oil refinery which uses imported crude oil as its major input. In this sense, this item is more of a re-export than a manufactured export as such. Table 4.6.1 illustrates the commodity composition of manufactured exports.

On the import side, the bulk of imports have been manufactured goods. The composition of imports has shifted from consumer goods towards intermediate and capital goods imports, as shown in table 4.6.2. The share of consumer goods in total imports has declined from 40-50 per cent in the 1960s to 20-30 per cent in the 1970s, and to below 20 per cent in the 1980s. The share of intermediate and capital goods imports has increased considerably over the same period, reflecting the standard pattern of import substitution industrialization, whereby domestic industrial production starts with simple consumer goods that had previously been imported.

Table 4.6.1: Manufactured exports, 1980-1987
(millions of Tanzanian shillings)

(Key to type of export given below the table)

SITC code	Type of export	1980	1981	1982	1983	1984	1985	1986	1987
33	1	204	130	126	145	328	516	143	556
(% share of ME*)		(19)	(20)	(22)	(25)	(31)	(40)	(11)	(15)
41-43	2	13	16	8	4	5	4	9	44
53	3	25	26	32	27	57	47	84	273
51, 54-59	4	7	6	1	4	12	2	2	3
64	5	1	2	0	3	11	6	63	458
65	6	253	113	125	123	218	167	314	1,180
(% share of ME*)		(23)	(18)	(22)	(22)	(20)	(13)	(25)	(33)
66	7	376	260	192	171	294	409	425	374
(% share of ME*)		(35)	(41)	(33)	(30)	(28)	(32)	(34)	(10)
61-63, 67-69	8	38	19	26	25	32	32	68	203
72	9	22	28	31	28	41	58	59	150
71, 73	10	2	1	1	1	9	2	6	32
81-89	11	141	40	32	39	63	49	91	337
Total ME*		1,082	641	574	570	1,070	1,292	1,264	3,610
Total DE*		4,700	4,706	4,119	4,187	6,028	6,048	10,905	19,103
(% of ME in DE*)		(23)	(14)	(14)	(14)	(18)	(21)	(12)	(19)

*In this table, ME denotes manufactured exports, and DE domestic exports.

Key:
1. Petroleum and products
2. Animal and vegetable oils
3. Dyeing and tanning materials
4. Other chemicals
5. Paper manufactures
6. Textile and products
7. Non-metallic mineral manufactures not elsewhere specified
8. Other manufactured goods, by material
9. Electrical machinery
10. Non-electrical machinery and transport equipment
11. Miscellaneous manufactures

Source: MFEAP, Foreign Trade Statistics. Dar es Salaam, December, 1988.

Table 4.6.2: Structure of imports, 1960-1987

	1960	1965	1970	1975	1980	1985	1986	1987
Percentage share of consumer goods in total imports	49.0	42.0	30.0	31.4	14.0	8.7	7.0	17.2
Percentage share of intermediate goods in total imports	6.7	16.0	40.4	41.4	40.2	41.2	39.0	34.2
Percentage share of capital goods in total imports	44.3	42.0	29.6	27.2	45.8	50.1	54.0	48.6

Source: MFEAP, Economic Survey (various years).

CHAPTER 5
EMPHASIS ON AGRO-RELATED INDUSTRIES

5.1 Justification

The role of agro-related industries in economic development has become increasingly recognized. The backward linkage effects of these industries serve as a strong stimulus to agricultural growth and development. Since most of the inputs are produced domestically, the drain on foreign exchange tends to be smaller than in other industries. The forward linkages are also important, as these industries produce key outputs for agricultural growth. In addition to their greater export potential, domestic consumers are better served, in that they gain access to a greater variety of goods over longer time intervals than would be possible with unprocessed foods.

The importance of agro-related industries has been emphasized by the Government of Tanzania as well. Both the Economic Recovery Programme and the current Five-Year Plan (1988/89 - 1992/93) assign priority to agro-related industries, a reorientation of policy that may result in a more viable long-term development strategy.

Shortages of food products and of raw material supplies to the agro-industries have been a salient feature in the development of Tanzania for many years. As the Economic Recovery Programme gains momentum, there will be an increase in the supply of agricultural goods for consumption, for agro-industry and for exports. This positive development will in turn create new demands on infrastructure such as for transport and storage facilities. Moreover, as supplies to the agro-industrial sector increase, it must be in a position to absorb the increasing capacities delivered to it.

Most agro-industrial factories presently operate far below their installed capacities. One of the major reasons for this is the shortage of raw material supplies. However, even if raw material supplies were available, the factories would not be in a position to handle significant increases in supplies for a number of reasons. The existing machinery in many factories is obsolete, since the necessary replacement investments have not been made. In many cases, the management is of poor quality and maintenance has been deficient. There is, therefore, an urgent need to rehabilitate the agro-industrial sector within the Economic Recovery Programme.

It should also be mentioned that this policy of rehabilitation forms an integral part of the overall development effort of Tanzania. The objective is for the agricultural sector, in addition to providing increased export earnings (some of which are much needed for the rehabilitation of agro-industries), to also provide increasing supplies of raw materials for the agro-industrial sector.

The strong linkage effects existing between the agricultural sector and agro-industry can thus have both positive and negative effects. An increase in agricultural production is necessary, but Tanzania's agricultural growth potential might not be achieved unless accompanied by a programme of agro-industrial regeneration.

The following section provides essential background information on agricultural production and indicates the potential for raw material supply from the agricultural sector to the agro-industrial sector.

3.2 Agriculture as a raw materials base

Agriculture contributes 40-45 per cent of Tanzania's GDP and directly supports the livelihood of 80 per cent of the population. It contributes 80 per cent to export revenues and supplies industry with agricultural raw materials. The share of agro-based industry in total manufacturing is considerable; it accounts for 55-60 per cent of the manufacturing value added and 75 per cent of total employment in the manufacturing sector. The role of agriculture in supporting manufacturing activities directly as a source of raw materials and indirectly as a source of foreign exchange earnings for the importation of intermediate and capital goods is of paramount importance.

The performance of the agricultural sector, however, has been less than satisfactory in the 1970s and early 1980s. The annual growth rate of agricultural GDP was 2.4 per cent during 1970-1975, declining to 1.0 per cent per year during 1976-1980. It recovered moderately to 2.3 per cent per year during 1980-1984, and recovered more substantially during 1984-1987 to an annual growth rate of 5.4 per cent.

The stagnation of agriculture in the 1970s resulted from low producer prices, inadequate incentives (e.g. resulting in deterioration of research and extension services and availability of agricultural inputs), poor marketing arrangements (e.g. delayed payments for collected crops, failure to purchase crops promptly) and failure to raise the level of technology employed in agriculture. For instance, the bulk of agricultural production is still characterized by hoe cultivation (85 per cent of cultivated hectareage), with only 10 per cent and 5 per cent of the land under ox-drawn ploughs and tractor respectively. Fertilizer utilization has been increasing at 2.6 per cent per year, but this is well below the annual population growth rate of 3.3 per cent.

When the long-term industrial strategy was formulated (for 1975-1995), the importance of the supply of agricultural raw materials was recognized, but it lacked any elaboration of the necessary strategy for the agricultural sector. Although it was suggested that, at a later stage, an agricultural strategy would be formulated which would be consistent with the long-term industrial strategy, in practice this was not done. Failure to formulate an agricultural strategy consistent with the industrial strategy meant that the highly dependent relationship between agriculture and industry was not given the attention it deserved. One of the consequences of the neglect of agriculture was the frequent shortfall in agricultural raw material supplies for industrial production, especially for the processing industries. As a result, the productive capacities of many agro-based industries were grossly underutilized due to the lack of agricultural raw materials. For example, cashewnut processing factories, oilseed-based industries (e.g. soap-making), sugar factories, pyrethrum-extracting and food manufacturing industries were victims of this phenomenon.

5.3 Agricultural trends

Tanzania encompasses a wide range of agro-ecological zones, allowing for the cultivation of a variety of food crops (e.g. maize, wheat, rice, beans, fruits, vegetables, millet, sorghum, bananas) and export crops (e.g. coffee, cotton, cashewnuts, sisal, tea, tobacco, pyrethrum). The output trends of selected major food and export crops are shown in tables 5.3.1 and 5.3.2, respectively.

The output of most export crops has tended to stagnate (e.g. coffee and tobacco) or decline (e.g. sisal and cashewnuts), with the exception of cotton, which has exhibited a strong upward trend. The output of some food crops has been increasing (e.g. maize and rice), while the output of most other food crops (e. g. cassava) has been fluctuating without showing a clear trend.

One of the principal causes of decline had been the transfer of purchasing responsibility to parastatal crop authorities. This proved inefficient, particularly in the case of the National Milling Corporation (NMC), which was responsible for food crop purchases. In 1985, this responsibility was passed back to the co-operative unions.

Fruits and vegetables are seen as contributing to better nutritional standards. Government policy is therefore to increase preservation and canning in order to reduce wastage/spoilage and to make them available to consumers even during the off-season. It is admitted, however, that marketing continues to be a serious bottleneck.

During the next Five-Year Plan, greater attention will be paid to increasing the production of fruits and vegetables. Efforts will be made to strengthen research and extension, to produce improved seeds, and to involve the private traders more in marketing. Preservation and canning will be encouraged. There are plans to develop nurseries for fruit and vegetable plants.

The livestock population census of 1984 shows that there were 12.5 million cattle (98 per cent raised on traditional farms), 6.5 million goats and 3.1 million sheep. The number of pigs and chickens is estimated at 214,853 and 13.5 million respectively in 1988/89. The off-take level of locally consumed and marketed stock is low, however, averaging only 10 per cent according to FAO estimates.

During 1984 about 26.6 million litres of standardized milk was produced and sold. This decreased to 14.9 million litres in 1986. Dairy farms had a livestock population of 4,882 in 1987.

Table 5.3.1: Total production of main food crops
(thousands of tons)

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87
Maize	1654 (89)	1651 (86)	1939 (71)	2067 (85)	2127 (178)	2359 (173)
Paddy	320 (15)	350 (21)	356 (22)	425 (12)	496 (16)	644 (11)
Wheat	95 (23)	58 (31)	74 (28)	83 (33)	71 (50)	72 (34)
Mixed pulses	297	282	281	406	345	424
Cassava	1658	1967	1894	1923	2052	1709
Millet and sorghum	970	793	1157	850	922	954
Beans	(14)	(11)	(8)	(4)	(13)	(17)

Note: The figures in brackets indicated the quantity of crops purchased from farmers by the National Milling Corporation. The remainder was either consumed or sold in the parallel markets.

Source: (1) Tanzania Economic Trends: A Quarterly Review of the Economy, Vol.1, No.2, July 1988. Published by ERB and MFEAP.

(2) Ministry of Agriculture and Livestock Development.

Table 5.3.2: Official purchases of selected export crops
(thousands of tons)

	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
Coffee	54.8	53.3	49.2	48.3	54.0	51.2	50.0
Seed cotton	133.0	128.0	140.4	154.8	167.8	213.1	226.1
Sisal	60.8	46.2	38.3	32.3	28.5	36.9	36.0
Tobacco	16.2	13.5	11.1	13.4	12.5	16.4	16.7
Tea	15.6	17.6	15.2	16.7	15.5	14.1	17.0
Cashewnuts (raw)	44.3	32.2	48.3	32.5	18.8	16.5	20.0
Pyrethrum	1.9	1.6	1.4	1.5	1.4	1.2	1.3

Source: Marketing Development Bureau, as quoted in Tanzania Economic Trends: A Quarterly Review of the Economy, Vol. 1, No. 2, July 1988.

5.4 Agro-industries: characteristics, problems, constraints and linkages

During the current Five-Year Plan, the major thrust in the agricultural sector is to increase food production, to increase foreign exchange earnings, and to provide sufficient raw materials for the domestic industrial sector.

In the industry sector, the Five-Year Plan envisages the development of basic industries (e.g. paper), and those industries which meet basic needs (e.g. food manufacturing, textiles and clothing). With regard to agro-related industries, the Party Programme (1987-2002) and the Five-Year Development Plan (1988/89 - 1992/93) envisage the expansion of agro-industries, especially those processing agricultural products in order to increase value added, either for domestic consumption or for export.

The development of agro-related industries is also expected to provide more employment and incomes and to reduce waste through spoilage of perishable products (e.g. fish, fruits).

The structure of agro-related industries is indicated in the table below.

Table 5.4.1: Structure of agro-related industries in 1983

ISIC code	Industrial activity	Number of employees	Gross output (TSh millions)	Manufacturing value added (TSh millions)
311-312	Food manufacturing	22,080	2,588.9	638.2
313	Beverage industries	3,641	877.7	186.7
314	Tobacco manufactures	3,375	551.9	278.2
321	Textiles	32,335	1,990.7	648.4
322	Wearing apparel except footwear	3,890	481.1	100.9
323	Leather products except footwear	1,695	203.8	447.8
324	Footwear - leather	3,533	414.4	116.3
331-332	Wood and wood products including furniture and fixtures	5,947	360.3	84.4
341	Paper and paper products	1,648	174.2	70.5
342	Printing and publishing	2,455	450.2	148.8
Total manufacturing sector		103,620	12,767.5	3,619.8

Source: Bureau of Statistics, MFEAP, Survey of Industrial Production. August 1986.

Within the group of agro-related industries, food manufacturing and textiles are the most important activities, followed by leather-based industries and tobacco manufacture.

Within food manufacturing, the main activities relate to meat and dairy products, sugar, vegetable oils and fats, grain mill products, fruit and vegetable canning and bakery products. All these branches within the food manufacturing subsector obtain their main raw materials from the agricultural and livestock sector.

Textiles are mainly based on the utilization of locally grown cotton and sisal. In both cases, however, there seems to be competition for cotton and sisal between the export market and the domestic market. The policy is designed to encourage both exports and local industries although future expansion of domestic processing industries is envisaged. The leather and footwear subsector uses leather from local tanneries and livestock as the main input.

The paper and paper products subsector obtains its inputs of basic paper from Southern Paper Mills, which uses locally grown softwood to make pulp and paper. Most of the other paper industries either use the products of SPM or waste paper as their main inputs. Printing and publishing uses basic inputs from SPM and provides a useful service to the packaging industry. Packaging materials such as bags are also essential for the marketing of food products and other agro-industrial products.

According to the current Five-Year Plan, the demand for bags is expected to continue to exceed supply. Imports will, therefore, continue to meet the difference between demand and domestic supply until the bag manufacturing plants are rehabilitated and able to expand production. Completion of the Southern Paper Mills has enabled paper-using enterprises to use locally produced paper. Efforts will be made to improve productivity and production efficiency at SPM (e.g. substitute coal for petrol, and also search for a larger market to allow higher output). There are plans to increase the production of paper packages from 3,000 tons per year to 18,000 tons at the end of the current Five-Year Plan (1992/93).

Some developments have been made or are being made to encourage the greater use of local raw materials in industry. For example, production of beer now uses some of the malt made from locally grown barley, and small portions (10-15 per cent) of sorghum are used. The manufacture of tyres and tubes will soon begin to use rubber from plantations in Muheza. Soap manufacturing is envisaged to rely more on the use of local caustic soda and oil-seeds. Mafura nuts are being developed for this purpose.

The main problems facing the agro-related industries result from a shortage of basic raw materials, power, and water, and also from a lack of investment. These supply and investment shortages have resulted in a low rate of capacity utilization. Table 5.4.2 shows that, among agro-related industries, capacity utilization rarely exceeds 50 per cent, except for locally consumed beverages (malt, beer, and a local brew known as <u>chibuku</u>) and for paper and bag production. In many cases, the figures are exceptionally low, such as for the leather and shoe industries, blankets and soap.

Table 5.4.2: Capacity utilization in selected agro-related industries

INDUSTRY	1976	1985	1986	1987	Rate of utilization (%)
Beer (million litres)	87.5	127.5	75.75	58.8	46
Chibuku (million litres)	22.2	22.2	10.9	12.4	56
Malt (thousand tons)	..	15.0	13.4	8.8	59
Cigarettes (billion pieces)	4.8	5.9	2.67	2.73	46
Soft drinks (million litres)	..	..	40.95	57.54	--
Cooking oil (thousand tons)	..	34.5	5.58	5.23	15
Textiles (million sq m)	90.0	252.1	63.1	66.6	26
Bags (million pieces)	8.4	10.0	3.5	5.0	50
Blankets (million pieces)	6.0	6.0	0.68	0.67	11
Leather (million sq ft)	11.8	30.0	5.3	3.08	10
Shoes (million pairs)	2.6	8.6	1.26	0.82	10
Paper (thousand tons)	..	79.0	16.0	38.5	49
Paper packages (thousand tons)	14.0	31.7	8.04	7.5	24
Soap (thousand tons)	..	85.9	12.96	15.03	17

Source: Budget Estimates for the Ministry of Industry and Trade for 1988/89. June 1988.

CHAPTER 6
BRANCH PROFILES

6.1 Food processing branch

6.1.1 Overall characteristics

In Tanzania there are reportedly 26 small processing plants (of which only five are currently capable of producing) for canning and bottling of fruit products. Two of the five currently operating factories, Tangold Products and Tanganyika Packers, are parastatals, while the others are privately owned. Tangold and Tropical Foods, one of the three privately owned firms currently in operation, were visited by the mission.

In general, fruit canning and bottling factories in Tanzania operate on a comparatively small scale, using manual operation and filling techniques and open steam-jacketed pans for cooking and concentrating, assisted by mechanical pulpers and finishers, semi-automatic MB1 seamers, exhaust boxes and small vertical retorts.

Processing of fruits generally follows the cropping season, with preserved tomato puree and orange juice and imported concentrates, notably blackcurrant, used for supplementary products out of season.

Canning was originally the main operation in these factories, but various factors, notably the price and shortage of cans, have led them to supplement production with glass bottles, which are now becoming expensive and in short supply, together with plastic bottles (usually made of polyvinyl chloride) which are bought in from local manufacturers or moulded on site.

Tropical Foods has recently embarked on a modernization programme which includes a juice/pulping line capable of handling up to eight tons of fruit per hour, with the intention of installing a fully automatic pasteurizing and long-life carton line.

6.1.2. Major problems and constraints

The main problem facing this branch is the poor quality, lack of regular supply and high price of its primary packaging materials, viz. cans and ends, glass and plastic bottles, caps, and labels. The price and quality of cartons is also causing concern.

Metal Box Limited is the sole source of supply of open-top cans and ends, and the most popular size (301, 16-oz and 8-oz) is currently limited to only 100 cans per minute (cpm), to supply canning factories with an installed seaming capacity of over 400 cpm. Besides this shortfall, the quality is poor, mainly from defective side seams.

It has been reported that, fortunately, Metal Box (UK) and the Tanzanian Investment Bank have agreed on a policy to refurbish all the lines of Metal Box (Tanzania) Ltd. with new, or where appropriate completely overhauled equipment so as to enable all future requirements to be met in full with good quality cans. The most significant change for the food canners will be the introduction of a unit to weld side seams, to replace the present outdated lead soldering technique on the round (16-oz and 8-oz 301 size) food can line. Metal Box (Tanzania) Ltd., estimates that the rehabilitation programme will be completed within 10 months of securing the necessary funds.

Kioo Glass Ltd. manufactures all the glass bottles and jars, with a capacity range of 25-50,000 units of one size per day, and a total daily output of up to 210,000 units. When peak production is required for beer and soft drink bottle production, there is no spare capacity. Consequently, sauce and squash bottles need to be purchased at least six months in advance to cover this period.

Glass bottles suffer from the disadvantage that there are no pilfer-proof, reclosable caps of local or imported manufacture. These are required to meet the legal standards laid down by Tanzanian Bureau of Standards. Crown caps used on beer and soft drinks are not suitable for squashes and sauces.

Manufacturers of sauces and squashes have therefore started to use moulded plastic bottles, made from imported granules, which are sealed with roll-on, imported aluminium caps, or with locally made plastic flip-top closures.

Apart from the occasional shortage, there is generally an adequate seasonal supply of fruits such as oranges, mangoes, pineapples, passion-fruit and tomatoes for processing. The problem lies in supplying the fruits to the factories on a regular basis and in good condition. There is a chronic shortage of lorries, none of which are converted or refrigerated for fruit cartage. The outlying roads are in very poor condition, which extends the journey time from harvesting to arrival at the factory to over two days on occasion, and also causes extensive damage and losses, reported to be as high as 50 per cent in extreme cases.

While there is little large-scale fruit farming in Tanzania, with the horticultural sector being supplied almost exclusively by small-scale subsistence farmers, the success of the proposed expansion in one of the food-processing facilities would depend on the following:

(i) The development of some form of commercial farming practices in close proximity to the plant. This would reduce the variations in the volume and price of material inputs and would also minimize damage due to extended transport distances.

(ii) The provision of cool storage facilities at the plant level to store unprocessed fruit for processing out of season.

(iii) The provision of adequate foreign exchange to permit the importation of essential inputs such as preservatives, analytical reagents, plastic granules for bottles and caps, boiler water treatment chemicals and spare parts.

Given improved incentives to the agricultural sector in the form of improved producer prices, better marketing channels, improved credit and better transport networks, the desired increase in agricultural production should be realized.

There is very little large-scale fruit farming in Tanzania, the horticultural sector being supplied almost exclusively by small-scale subsistence farmers, each cultivating only a few hectares. Commercial contract cropping has therefore not been feasible to date. None of the factories has a significant area of its own land to act as a nucleus estate to ease the supply problem.

None of the factories has refrigerated cool storage facilities for unprocessed fruit. This is a required facility, especially when deliveries tend to be so unreliable.

The lack of foreign exchange severely limits the importation of otherwise unobtainable essential inputs such as preservatives, analytical reagents for quality control purposes, plastic granules for bottles and caps, boiler water treatment chemicals, and mechanical spare parts.

The shortage of well-trained and qualified management, of all required professions - accountants, technologists, engineers, chemists - and also the lack of training facilities and courses poses severe staffing problems.

The Sugar Development Corporation is the source of supply of sugar, which is made in two grades (excluding raw) in Tanzania: double-refined (white) sugar, which is required in the manufacture of juices, squashes, and fruits in syrup, and single-refined (off-white, containing some molasses) sugar, which is suitable for domestic use.

There is a critical shortage of double-refined sugar, and it has been reported that its production may cease in future. Fruit processors will therefore need to resort to importation of the white sugar, if quality is to be maintained.

There is a possibility that syrup made from the single-refined, off-white sugar, which is also in very short supply, may be suitably refined by passing it through a bed of activated charcoal.

6.1.3 Linkages

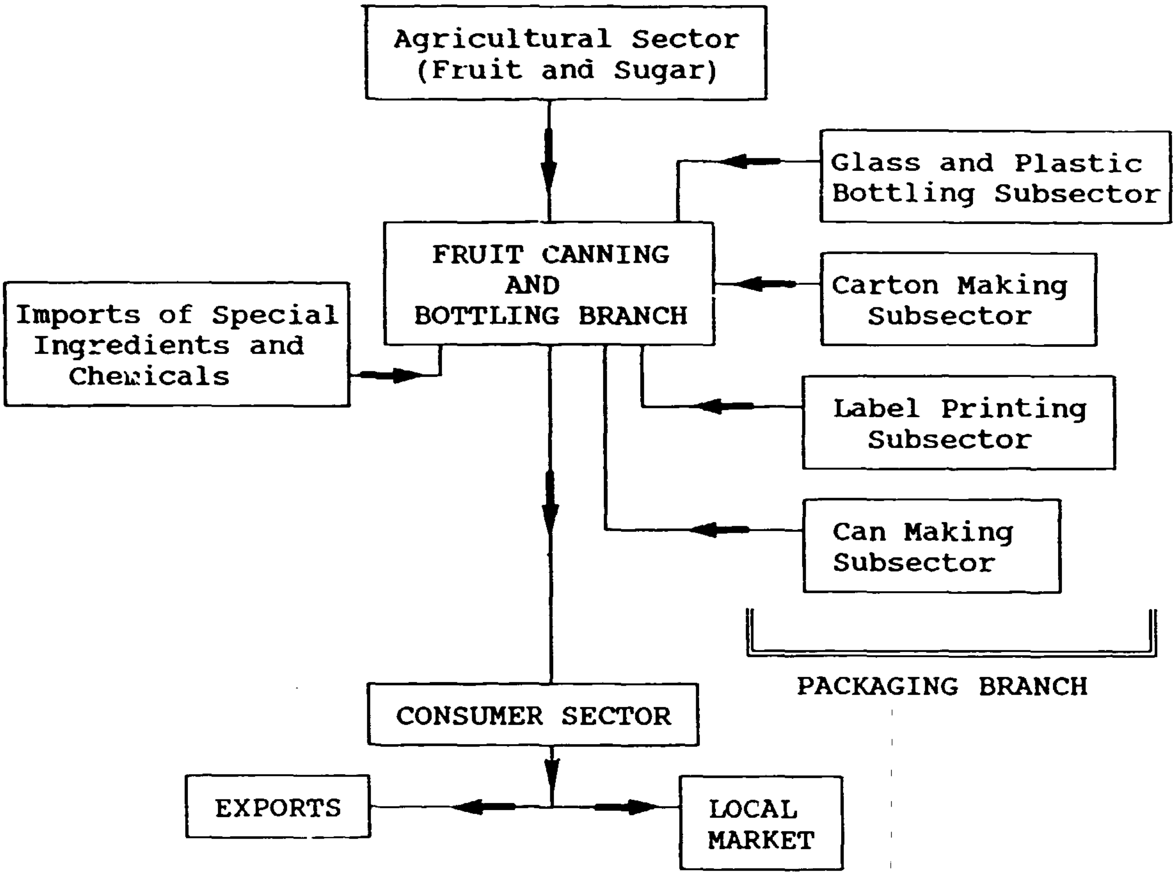
Linkages between the food canning and bottling branch and other branches, including both forward linkages (e.g. to packaging plants) and backward linkages (primarily to the agricultural sector), are shown in Figure 6.1.

6.1.4 Ownership patterns

Out of 26 registered fruit-processing units in the country (many of which are not operating) 6 are registered as public companies and the other 20 are registered as private companies. Three are situated in and around Dar-es-Salaam.

Within the public sector, two large factories are operated under Tangold, a subsidiary of the National Milling Corporation. NMC is a parastatal under the Ministry of Agriculture and Livestock Development and is the sole shareholder in Tangold. One small fruit-canning line is operated by Tanganyika Packers, which again is a parastatal enterprise under the same Ministry as Tangold. There are three small plants which are run by District Development Corporations under their respective district councils in Kyela, Lushoto and Mukeza.

Figure 6.1: Linkages in the fruit-canning and bottling branch



Source: Tangold Products Company.

Within the private sector there are three main factories - Dabaga Fruit and Vegetable Canning Company, Tropical Foods Ltd and Mbeya Canning Industries, which is now closed. The remaining units in the private sector, many of which are not operating, are very small scale.

6.1.5 Policies and institutions

All the units have obtained their licences and certificates from the Ministry of Industry and Trade. However, the two units which are owned by Tangold and the unit under Tanganyika Packers belong to the Ministry of Agriculture and Livestock Development.

The Government is committed to raising the nutritional standards of the population and to reducing the wastage of fruits (especially in peak production periods when some areas have surplus supplies) through spoilage. To this extent the fruit-canning industry is given priority by the Government within the other agricultural processing industries.

The development of the food-processing sector is consistent with the Government policy stipulated in the Economic Recovery Programme, which emphasized "food security" and an expansion of domestic self-sufficiency in food and beverage supplies.

Policies initiated by the Government to stimulate agricultural production include:

- An increase in producer prices for agricultural products;
- The transfer of marketing to co-operative unions and the de-monopolization of purchasing power by the parastatals;
- A policy of increased credit for farmers;
- Improvements in technological inputs;
- The promotion of an export retention scheme to enable farmers to retain a proportion of the foreign exchange they earn;
- The promotion of private/foreign investment in the production of export crops.

6.2 Paper processing branch

6.2.1 Overall characteristics

As most of the units are small to medium size, this branch is dominated by Southern Paper Mills, located at Mufindi, with an overall installed capacity of 90,000 tons per year of newsprint, kraft, machine-finished paper and pulps.

Most other converters rely on SPM to a greater or lesser extent for paper (kraft and machine-finished) and/or pulp.

The pulp and paper board mill division of Kibo Match Corporation, Moshi, is independent of SPM, but has difficulty with the cost and reliability of supplies of waste paper from Dar es Salaam. They manufacture board for conversion to plain cartons.

Kibo Paper Industries in Dar es Salaam relies on SPM for unbleached pulp in the manufacture of its corrugated carton board, all of which it uses for its own carton manufacturing business, as well as kraft paper for conversion to cement and grain sacks. The thicker white-lined boards are purchased from Kibo Match Corporation.

Twiga Paper, in Dar es Salaam, is almost entirely dependent upon SPM for its kraft liner and test liner for corrugated board manufacture, and kraft paper for conversion into grocery bags, etc.

It also uses some yellow machined paper from SPM for tea-bags for local use. The quality is not good enough for exports, however, and imported machine-glazed paper is used instead.

All companies in the sector face stiff competition from better quality and cheaper imported products, when foreign exchange is available.

6.2.2 Major problems and constraints

There are two major constraints, firstly the high cost and unreliability of road and rail transport, and secondly the high price charged by SPM for its domestic products. This high local price arises from high initial production costs, which are further increased by the need to subsidize paper exports at world market prices in order to earn foreign exchange.

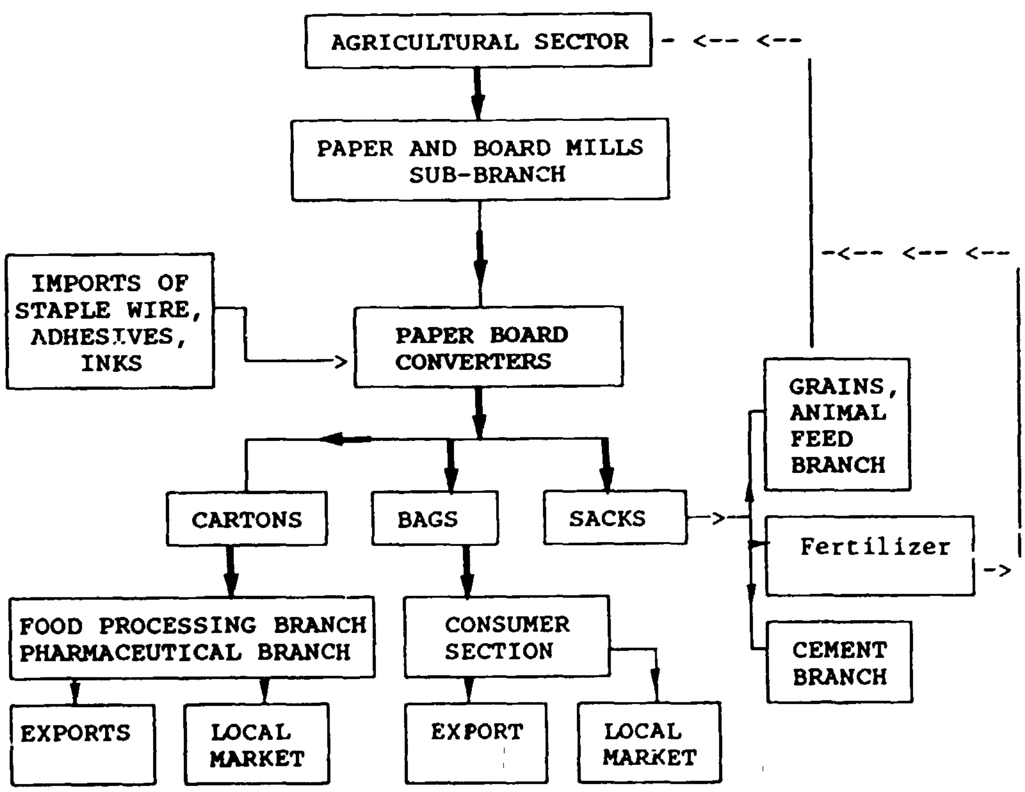
Another constraint is the non-availability of spare parts for aging machinery, and of the foreign exchange needed to purchase them.

The lack of adequate heavy road and rail transport for ferrying raw materials and finished goods poses extra problems of irregular trading patterns and lack of adequate storage space to accommodate the fluctuating deliveries of raw materials and dispatch of finished goods.

6.2.3 Linkages

Linkages in the paper processing branch are shown in figure 6.2. Note that, in addition to the backward linkages to the paper and board mills sub-branch of the agricultural sector, there are numerous forward linkages to the food processing, pharmaceutical, animal feeds, fertilizer and cement branches, among other industries serving both local and export markets.

Figure 6.2: Linkages in the paper processing branch



Source: Twiga Paper Products Ltd.

6.2.4 Spatial distribution

Most units in this branch are small to medium size. In all, there are fourteen registered enterprises producing paper packaging materials, most of them concentrated in Dar es Salaam because it offers a very large market. Eight units are located in Dar es Salaam and one each in Tanga, Arusha, Moshi, Zanzibar, Iringa and Mosi. Not all the plants are currently operational, and the range of products vary from paper milling to cardboard boxes to sweet wrappers and small paper bags.

The four largest processors are: SPM in Mufindi, with a capacity of 90,000 tons per year; Kibo Match Corporation, on the outskirts of Moshi, with a capacity of 9,000 tons per year; Kibo Paper Industries, in Dar es Salaam, with a capacity of 10,000 tons per year; and Twiga Paper Products Ltd., with a capacity of 3,000 tons per year, also in Dar es Salaam.

6.2.5. Ownership patterns

Only two of the largest enterprises are publicly owned (Kibo Paper and Southern Paper Mills), while the rest are privately owned. Kibo paper is a subsidiary company under Tanzania Karatasi and Associated Industries (TKAI) as its holding parastatal with 10 per cent private participation by Tanzania Development Finance Ltd. Southern Paper Mill is a subsidiary company under the National Development Corporation as its holding parastatal. In both cases the Ministry of Industry and Trade is the parent ministry.

6.2.6. Policies and institutions as they relate to the paper processing branch

A critical problem that needs to be addressed is the apparent contradiction between the desire to satisfy World Bank directives with respect to the price levels required to export sufficient paper to repay the financial investment for the project and the excessively high cost of domestic paper sales needed to cover annual operating costs to the detriment of the local packaging industry.

6.3 Animal feed branch

6.3.1 Overall characteristics

This branch relies mainly on locally-produced raw materials such as maize, oil-seed cake, wheat bran, fish-meal, bone-meal, limestone and salt, supplemented by imported vitamins, amino acids, and trace minerals.

The branch is dominated by the plants owned by Tanzania Animal Feeds Company (TAFCO), a parastatal group, with a total installed capacity of 170,000 tons per year, the largest of which has a capacity of 10 tons per hour and is in Dar es Salaam. The smaller private units have an estimated capacity of 80,000 tons.

In 1988, the output of TAFCO was only a little over 15,000 tons, of which just under 8,000 tons were produced in the Dar es Salaam plant. The private sector contributed an estimated 50,000 tons, towards an approximate need of 220,000 tons for the whole country.

About 95 per cent of the outputs are for various poultry feeds, the remainder being for pigs, cattle, and special experimental animal feeds.

The low output levels have been attributed to a shortage of supplies of raw materials, coupled with mechanical breakdowns due to the age of the equipment and lack of maintenance.

6.3.2 Major problems and constraints

The shortage of essential ingredients, especially the animal protein supplements, means that most of the animal feeds produced fall short of the specifications laid down by the Tanzania Bureau of Standards.

Fish-meal has been in short supply, since the meal plant in Mbeya ceased to operate on a regular basis in 1986. The plants now rely on an irregularsupply of small dried fish from the lakes purchased from fishermen and middlemen at widely fluctuating prices. Meat and bone-meal from Tanganyika Packers has been unobtainable since the abattoir was closed in 1984.

Oil-seed cake is also in short supply, since several of the oil-seed processors have broken-down, worn-out expellers which have reduced outputs. There is also a shortage of cottonseed at the plants, since sufficient transport is not available to bring the seed from the cotton-growing areas.

The lack of spares and the foreign exchange to purchase them and the absence of regular preventive maintenance has led to an ever-increasing occurence of breakdowns and complete stoppages.

Other serious problems result from the poor roads, and the lack of 7- to 10-ton lorries to ferry raw materials and finished goods.

The importation of essential vitamins, amino acids and trace minerals was restricted until recently, when Canada started to supply them as part of an aid package.

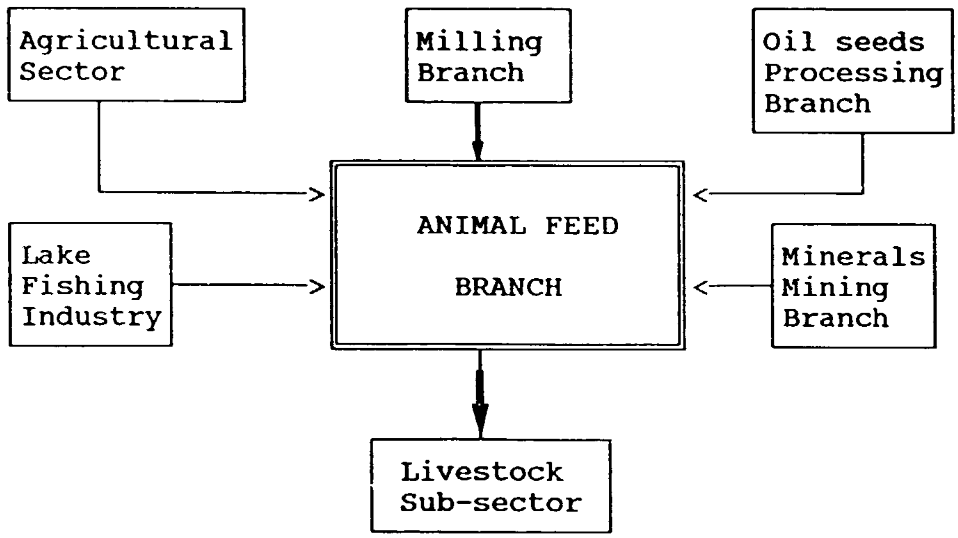
6.3.3 Linkages

The animal feed branch has strong backward linkages to the agricultural sector for its grains, the milling branch for its brans and wheatmeal, the oil-seeds processing branch for its seed-cake, and the fishing industry for its dried fish. The forward linkage is to the livestock subsector, as illustrated in Figure 6.3 below:

6.3.4 Spatial distribution

There are 24 animal feed plants on the Tanzanian mainland, 14 located in Dar es Salaam, two in Moshi, two in Arusha and one each in Lindi, Mbeya, Mtwara, Mwanza, Kigoma and Shinyanga. The present raw material input supply shortage has led to intense competition for supplies, and many of the smaller feed mills have operated on a random basis when supplies allow. In addition, there is one unit located in Zanzibar.

Figure 6.3: Linkages in the animal feed processing branch



Source: Tanzania Animal Feeds Company.

6.3.5 Ownership patterns

The largest four animal feed plants are owned by TAFCO. These plants are located in Dar es Salaam, Moshi, Mbeya and Mwanza and have a combined installed capacity of 170,000 tons per year. Output from the scattered private plants is estimated to be a maximum of 80,000 tons per year, although only 50,000 tons were prcduceded in 1988.

There are at least 16 privately-owned companies (according to the number of industrial licences issued), many of which are fairly new but very small. In particular, seven plants received their industrial licences in 1986 or later.

6.3.6 Policies and institutions

Although industrial licences for the manufacture of animal feeds are granted by the Ministry of Industry and Trade, the public sector company (TAFCO) is owned by the National Milling Corporation, a parastatal operating under the Ministry of Agriculture and Livestock Development. The Government is committed to the development of the livestock farming sector in order to raise income levels of livestock farmers and improve the nutritional standards of the general population (through the consumption of milk, eggs, meat, etc.). The Government therefore considers the production of animal feeds as an essential input into the livestock industry.

CHAPTER 7

OBSERVATIONS AND RECOMMENDATIONS REGARDING COMPANIES

The mission examined four plants in detail in order to specify rehabilitation needs at the plant level. These were:

- a fruit juices processor;
- a paper products company which produces corrugated cardboard cartons and brown and yellow paper bags;
- an animal feeds producer; and
- a dairy plant.

One of the four enterprises is based in Zanzibar, while the others have plants spread throughout Tanzania. One is privately owned, and three are publicly owned. These plants were chosen from an original list of 14 candidate enterprises provided by Tanzania's Ministry of Industry and Trade. In making the choice of plants, the mission consulted with the Ministry as well as other government departments including the Ministry of Agriculture and Livestock and the Ministry of Finance, Economic Affairs and Planning. Tanzania Investment Bank and Tanzania's main bilateral and multilateral co-operation partners also provided important input. The mission also took into account the Government's desire to achieve greater regional dispersion of industrial development.

The four selected enterprises have different characteristics, but have one important point in common, namely that each has potential for rapid growth following implementation of an appropriate rehabilitation strategy, and that the benefits of rehabilitation will be spread broadly through a range of linkage effects.

The following general observations and recommendations are made with respect to management, organization and marketing; physical plant; and inputs.

7.1 Management, organization and marketing

General observations

(a) Many of the plants have a large number of vacancies both in key management positions and at the intermediate level. This is particularly so with respect to the production and accounting functions. If these plants are to cope effectively with the anticipated increase in production, these vacancies should be filled as soon as possible, so that staff can acquire the necessary experience and improve the overall efficiency of the industrial enterprises.

(b) While management appears to be technically qualified, there is an absence of real managerial skills. Since most companies are parastatals, they have been cushioned from the harsh realities of commercial life by protectionism, subsidies and lack of competition. As a result, managers have lacked accountability and plant management has been extremely inefficient. No effective cost accounting is undertaken, and losses are automatically written off.

(c) At a more general level, the plants have little autonomy, as they are subsumed under large parastatals which have proven to be inefficient, cumbersome and a drain on resources. Individual plants, therefore, reflect the overall inertia in the system.

(d) There is a lack of basic planning skills. Plants are established without the benefit of full feasibility studies, leading to unforeseen consequences, such as severe raw material shortages.

(e) None of the companies visited had an effective sales organization, largely because they operate in a sellers' market. Furthermore, many companies do not undertake to distribute their finished products, because of the shortage of vehicles and the currently debilitated condition of the road network in Tanzania. Thus, products are generally sold "at the factory gate" and normally on a cash basis, to improve company liquidity.

(f) Due to the transportation problem, major markets for most companies remain in the town or city in which the plant operates. Few companies have intensive well-developed markets.

(g) In general, markets for finished products in Tanzania are extremely price-sensitive because of the predominantly low level of disposable income among the population. This has the effect of indirectly controlling product pricing and hence the profitability of many companies involved in the manufacturing sector.

(h) Tanzania has well-developed markets for many unmanufactured, packaged and processed agricultural products. Prominent examples of this are cotton, timber products, tea, coffee, seeds, animal skins, tobacco, cloves, cashewnuts, and sisal fibre. There are, however, other markets for processed fruit products and fresh produce that remain untried, due mainly to the inferior packaging facilities prevalent in Tanzania.

Recommendations

(a) Management and intermediate positions need to be filled as soon as possible, preferably with experienced staff.

(b) Management training should be provided at the senior level. This should involve short intensive courses, preferably with a practical orientation and a strong emphasis on financial management.

(c) Serious consideration should be given to the overall organization of the manufacturing sector. While the Economic Recovery Programme will create a more dynamic environment, many of the benefits could be wasted through continued support of largely inefficient parastatals.

(d) On the marketing side, improvements in the road network and the emergence of the private sector will generate greater competition. Companies will therefore need to adjust their product prices and quality and packaging to survive. Emphasis should also be given to developing an appropriate export market mix.

7.2 Physical plant

General observations

(a) Average capacity utilization was found to be below 40 per cent on installed capacity. Due to the poor state of maintenance of the machinery and equipment, even the achievable capacity was not reached. This occurred in spite of the widespread practice of cannibalizing some pieces of equipment in order to keep others in operation. This was particularly significant in the case of the fruit drink processor and animal feed producer.

(b) Most of the equipment and machinery was either too old and obsolete, or out of use due to lack of proper maintenance. In several cases, the design capacities stipulated by the equipment suppliers have not been achieved since the date of commissioning. Common observations include reduced capacity of particular equipment or of an entire production line, as well as technical and operational problems. There has been no case of deliberate exclusion of any equipment essential for more efficient operation. The limited supply and poor quality of inputs resulted in the plants operating well below full capacity. Except for the paper products firm, which is a special case, there is a sellers' market. The problem is largely due to supply constraints, rather than to a lack of market for the final product.

(c) There is a general absence of in-house laboratory facilities, and also a lack of equipment and qualified quality-control personnel. This has resulted in poor quality-control procedures.

(d) Plant hygiene is poor, and insufficient attention is given to industrial health and safety and to waste treatment and disposal. Even where some safety equipment is available, no safety regulations are in force. There is a low standard of building maintenance practice; walls, floors and roofs were often very dirty and dusty.

(e) Preventive maintenance is neglected, due to the shortage of spare parts. However, even where spare parts are not required, scheduled maintenance is still lacking.

(f) Plant performance could not be assessed accurately due to poor record-keeping. The necessary information on purchases and sales and production was not available.

Recommendations

(a) Constraints on the production process should be removed by the replacement of obsolete parts or units.

(b) Quality-control programmes should be adhered to through the routine monitoring and controlling of raw materials, intermediate products and final products. The use of specialist laboratories should be encouraged, since a number of them offer pertinent and useful analytical services.

(c) Safety and health regulations for workers should be adhered to. The management should ensure that safety equipment is provided to all workers and that the workers use the equipment as required. The grass bushes surrounding the plants should be cleared in order to eliminate breeding places for mosquitoes and snakes, etc. Toilets and showers should be made clean and usable. General cleanliness would be enhanced by regular cleaning of buildings walls, windows and doors, floors and roofs. All parts of the buildings should be painted on a regular basis.

(d) Foreign exchange should be made available to enable a stock of essential spare parts to be built up and to purchase other emergency spares. All plants suffered greatly from the lack of spares and associated maintenance.

7.3 Inputs

General observations

(a) All of the plants visited suffered from the shortage of locally produced or imported inputs because of severe transport difficulties, limited local production, seasonal considerations and lack of foreign exchange.

(b) Every plant required at least one, and in one instance five, extra new vehicles for ferrying raw materials and finished goods. The supply of new vehicles, however, is only a short-term solution, because of the very poor condition and lack of maintenance of stretches of many of the major roads and all of the feeder roads.

(c) There are input supply problems in each of the enterprises studied:

- fruit juices: The problem of the shortage and poor quality of the locally produced cans will be overcome when the planned rehabilitation of the can-making plant has been achieved. The availability and quality of sugar will improve when the processing plants are overhauled.

- dairy: The shortage of raw milk supplies to the dairies will not be resolved quickly, but, with appropriate incentives, there is scope for a significant increase in the supply of raw milk to the dairy plant.

- animal feeds: The supply of animal proteins for animal feeds will continue to be critically short, especially until the meat processing plant in Dar es Salaam and the fishmeal factory in Mwanza are fully operational. Alternative soybean protein is desirable.

- paper products: The high cost of locally produced paper could be offset by allowing cheaper imported paper to be used, especially for cardboard cartons made for exported commodities such as fresh fruits and canned goods. Label quality would be improved if machine-glazed paper could be manufactured, and if four-colour separation facilities could be made available in Tanzania.

(d) There are no cool storage facilities at any of the fruit processing plants, or any suitable alternative facilities in other locations.

Recommendations

(a) In order to reduce vehicle maintenance and depreciation costs, and to improve delivery times and charges, a major road rehabilitation and maintenance programme is needed. This must be accompanied by an overhaul of the rail network, including communications, so as to enable it to play a larger role in transporting heavy or bulky goods.

(b) The cultivation and processing of soybeans to produce protein and oil supplements for the animal feeds should be implemented. This will also relieve future pressure on fish stocks in the lakes.

(c) Cool storage facilities should be planned for the food processing plants and other suitable locations, such as the major fruit producing and collecting points.

(d) There should also be a liberalization of foreign exchange availability and distribution.

CHAPTER 8

GENERAL OBSERVATIONS AND RECOMMENDATIONS

8.1 Policy observations

(a) There is as yet no coherent strategy for industrial rehabilitation. Priorities therefore need to be established and translated into specific action programmes.

(b) There are many donors presently active in Tanzania, and the amount of aid provided in recent years has increased significantly. However, the lack of a coherent industrial rehabilitation strategy has led to unco-ordinated donor assistance activities.

(c) As the implementation of the Economic Recovery Programme proceeds, the main attention of Tanzanian authorities should be directed increasingly towards re-establishing macro-economic equilibria within a relatively short-term policy perspective. Since the existing distortions are still of considerable magnitude, the short-term adjustment processes could present serious problems for the authorities, and, if not carefully monitored, could interfere with long-run growth and development objectives. For example, a general liberalization and privatization may have certain negative effects on the distribution of income and wealth in Tanzania.

(d) It would not seem to be in Tanzania's long-term interest to retain public ownership of all parastatals. The underlying assumption is that scarce public resources should be channelled to public enterprises which offer potential for maximizing growth or for satisfying indispensable basic needs such as public health or water supplies. Parastatals should therefore be ranked according to their contribution towards overall development objectives, with resources channelled according to established priorities. Attempting to maintain all enterprises, and spreading scarce resources thinly among them, might result in the eventual closing down of viable enterprises.

(e) There is also the question of foreign versus domestic investment. The government is presently discussing the Investment Code, most likely with a view toward stimulating foreign investment. It can be foreseen that this will include different forms of foreign investment, such as joint ventures between parastatals and foreign companies and direct foreign investment. However, the role of Tanzanian investors in the country's development is an important issue, and there is a need to establish a policy in this respect. In general, it can be assumed that the Tanzanian investor will be in a weaker position than the foreign investor, mainly because of limited access to foreign credit and technology. Special measures are thus needed to encourage Tanzanian private capital to play a more significant role in the future development of the country.

(f) The lack of competitiveness in Tanzanian industry, and the continuation of various monopolistic situations, give cause for concern. Under these circumstances, production disturbances, where linkage effects are important, are rapidly translated to other enterprises. Moreover, the lack of competition also enables the monopolist to curtail output and in this way to raise the selling price above a normal market price. In view of the fact that there are prospects for increasing Tanzanian exports of manufactured goods, such opportunities will be severely curtailed if raw material and intermediary inputs have been inflated by monopolistic practices or non-competitive markets.

(g) The Government should continue to review its tax, import duties and tariff policies. Under present circumstances, if a potential exporter uses a significant input from other Tanzanian enterprises, the sales tax acts as a deterrent to increasing exports. Moreover, if the input used also contains an imported component, the input price then also increases. If the enterprise purchases an input that is imported by another enterprise, then this input is subject to the combined effects of import duties and sales taxes.

(h) The export retention scheme, while justified as a temporary measure, has produced some negative effects. The mission has noted that producers have a strong incentive to export goods to obtain needed foreign exchange. In some cases, these exported goods are also demanded by domestic producers who cannot obtain adequate supply to maintain production levels. As the retention scheme is a temporary measure, the negative side effects mentioned above will disappear with the liberalization of markets.

(i) Another area for concern, which the Government has attempted to address, is the issue of wage policy. The liberalization of producer prices has raised raw material input prices, which are ultimately being passed on to the consumer. Given fairly static real wages, there is a danger that the demand for consumer goods will be constrained by depressed purchasing power. In the current stringent economic climate, it would not be appropriate to recommend significant wage increases. However, it is to be hoped that some proportion of the anticipated productivity increases in the industrial sector will be passed on in the form of wage increases.

8.2 Prospects for international and regional co-operation

(a) At present a great number of donors co-operate with Tanzania. A substantial part of the aid flowing into the country is in the form of resources which Tanzania can dispose of with relatively few constraints. A significant part, however, is subject to various constraints imposed by donors. Behind these conditions are to be found various motives which may or may not be in the long-term interest of the development of Tanzania.

(b) As the precarious economic situation improves in the country, the bargaining situation of Tanzania *vis-à-vis* donors will also be strengthened. In these changing circumstances, it is recommended that Tanzania clearly define its own development policies and successively reassert its role in development co-operation. Obtaining a larger share of aid in untied form would be but one part of this strategy.

8.2.1 Regional co-operation

(a) The guiding principle in designing project ideas in the regional and subregional context is better utilization of complementarity in the region, as well as sharing of facilities in the region, wherever this may be feasible.

(b) The region has several consulting and engineering design organizations (CEDO) which specialize in various fields and have gained different experiences in the area of rehabilitation. Projects could be designed with a view to making better use of their varied experiences, especially in the following areas:

- Information exchange as to the capabilities of each CEDO;

- Sharing of experiences which have been gained, as through workshops or seminars on specific problems related to rehabilitation;

- Identification of areas of possible joint ventures, or undertaking of joint development/consulting activities.

(c) There must be concerted efforts to encourage substitution of imported inputs by local inputs from the region. This may involve:

- Identification of possibilities for sourcing complementary inputs from within the region (e.g. whether textile chemicals from Zimbabwe could be used in Tanzanian textiles, or whether sisal from Tanzania could be used in bag manufacturing in Angola or Mozambique);

- Exchange of experiences on progress made by the more successful countries in making use of local inputs as substitutes for imported inputs.

(d) Marketing and trade contacts should be further developed, as through the following:

- Identification of joint activities in the field of marketing of products (e.g. canned fruit, packaging materials) within the region;

- Linking users and producers of various goods and services (e.g. simple machinery, spare parts, engineering and maintenance services), and identifying vertical linkages among them;

- Using the regional market as a way of making better use of existing production capacities (e.g. supplies of paper materials from SPM could be used in paper packaging activities in Zambia, Zimbabwe and Mozambique).

(e) Training facilities and opportunities should be given particular attention within the regional context. Specific suggestions:

- An inventory of training institutions in the SADCC region has been completed. What remains to be done now is to devise ways for utilization of common training facilities.

- One area which has received little attention is on-the-job training, for example, by way of deputation of technicians and technical experts between firms in the region.

- Special attention should be paid to acquisition of skills in various fields of rehabilitation in specific industries. Facilitation of exchanges through workshops or study tours would be useful.

(f) Supportive services, particularly in the area of standardization and quality control, would enhance regional trade and joint activities in the area of production, maintenance, engineering services and consultancy. In this area national standards bodies are being established in the SADCC countries where they did not exist and existing institutions are being strengthened, with resources being mobilized specifically for this purpose.

(g) The compilation of a list of goods and services currently being exchanged in the SADCC region and the relevant technical regulations governing them is being prepared. The results of the study should facilitate harmonization of standards and certification systems. A start could be made, soon after the results of the above study are out, by holding regional enterprise or product-oriented workshops on standards, quality control and packaging for export with special reference to rehabilitation requirements in selected branches.

8.3 Cost and pricing system

General observations

(a) Prices for products on the Tanzanian markets are either directly controlled under Government policy or are indirectly controlled by extremely price-sensitive markets. Parastatal organizations are subject to output price control by the Government, with irregular price reviews. This often causes a lag between increasing input prices and output price adjustments, which affects the profitability of the parastatals. Private companies not under price control also suffer high input prices and have to control output prices in a price-sensitive market, because of the general low level of disposable income of the Tanzanian consumer.

(b) High input prices and controlled output prices have affected the financial structure and liquidity of many companies in the manufacturing sector. This is further aggravated by the large amounts of raw material input stocks generally held by these companies. Bulk purchase of scarce and ever more highly priced goods makes economic sense even though access to short-term overdraft facilities may have to be mobilized because of the liquidity problems such companies encounter.

(c) Many companies in the manufacturing sector are dependent on imported raw materials, spare parts and machinery. Preference in foreign exchange allocation has been given to raw material imports so as to keep the flow of products from stagnating. Raw materials, spare parts and machinery imports bear variable tariff rates and only add to the production costs of companies concerned. However, these short-term costs will be offset in the longer term by increased production and profitability.

(d) Sales tax is considered by many companies, especially in the private sector, as a constraint on sales and company profitability. It canbe as high as 50 per cent of product revenue, a cost which is subsequently passed on to the consumer. In companies providing essential inputs or food items, and normally operating under Government-controlled prices, sales tax is very low or non-existent to keep output prices down and not squeeze company profitability.

(e) The devaluation of the Tanzanian shilling, from TSh 16 : US$ 1 at the beginning of 1986 to TSh 130 : US$ 1 in March 1989, has meant that those companies which had weak financial structures find it difficult to meet cash cover requirements for purchasing imported inputs. Credit allocation has not been able to remedy this problem so far, partly because of the credit ceilings under the IMF agreement and the relatively large share of credit allocated to co-operatives and marketing boards.

(f) The overriding constraint faced by most companies, especially those not involved in the export retention scheme, is the shortage of foreign exchange. This has been most acute with respect to the importation of spare parts and machinery and has affected capacity utilization. Furthermore, the present system of foreign exchange allocation is extremely inefficient and slow. The OGL system introduced in 1988 was designed as a non-administrative and quick system for foreign exchange allocation. Even under this system, however, the period from application to the issue of the import licence can be two to three months.

Recommendations

(a) The prevailing price control system should be reviewed, and greater flexibility introduced. Some synchronization between price output determination and changes in the prices of related inputs is needed.

(b) Some attention should be paid to the effects that high input prices have on many companies in the manufacturing sector. Some measure of input price control for specific industries could act to enhance company profitability and maintain the prices of products.

(c) Raw material input shortages, while causing high prices, also limit the level of capacity utilization in manufacturing industries. Policies geared towards increasing domestic production of important raw materials (e.g. soybeans for animal feed) should be vigorously pursued.

(d) The effects of exchange rate adjustments on local price levels should be carefully monitored. Not only are the present liquidity problems of companies likely to increase, but also the increasing cost of foreign exchange may be passed on to the consumer through product price increases.

(e) The system for foreign exchange allocation even under the "automatic" OGL scheme is still too slow. Attempts should be made to speed up procedures.

(f) Wherever necessary, the local production of spare parts should be encouraged. In this context, a selective tariff rate should be formulated, with high rates levied on competing imports and low to zero rates established for non-competing imports.

CHAPTER 9

SUMMARY OF PROJECT CONCEPTS

9.1 General project concepts

(a) Assistance to the Ministry of Industry and Trade in formulating an industrial rehabilitation programme with emphasis on agro-related industries.

(b) Assistance to the Ministry of Industry and Trade in establishing and strengthening existing regional and national maintenance centres and workshops.

(c) Assistance to the Ministry of Manpower in identifying management training requirements for the agro-related industries.

(d) Assistance to the Tanzanian Bureau of Standards in formulating a national quality control programme in the agro-related industries.

(e) Review and development of maintenance procedures for the agro-based industries.

(f) Assistance to the Ministry of Industry and Trade in establishment of an appropriate information management system.

9.2 Institutional project concepts

(a) The management information systems linking the Ministry of Industry and Trade, the parastatal holding corporations and the subsidiary companies need strengthening.

(b) The capability for undertaking sectoral overview studies and planning is rather weak, making it difficult to evolve sector specific policies and strategies. These capabilities should be strengthened through the creation of special sectoral units in the Ministry which could make use of their own human resources or consulting firms like TISCO to undertake such sectoral studies.

(c) The practice of having similar activities operate under different parastatal holding corporations complicates co-ordination (e.g. fruit canning under National Milling Corporation and Tanganyika Packers, but the two are not related institutionally, or Southern Paper Mills under National Milling Corporation, while Kibo Paper and other public sector paper industries are under Tanzania Karatasi Associated Industries). Because NMC and TKAI are independent of each other, the development of SPM in consonance with the other paper industries could be complicated.

(d) The practice of sharing specialized equipment and skills in similar industrial activities seems to be limited. Arrangements could be made to promote sharing of capacities (e.g. on a commercial basis). Arrangements along the same lines could be made to facilitate exchange of experiences in the area of industrial rehabilitation in specific industrial branches.

9.3 Sectoral and subsectoral concepts

(a) Branch-level study of the sugar industry.

(b) Branch-level study of the animal feeds industry.

(c) Branch-level study of the coconut industry.

(d) Study of spare parts manufacturing.

(e) Market survey of the export potential for processed fruit and vegetable products.

(f) Branch-level study to investigate packaging requirements to promote export of agro-based industries.

(g) Assistance to MIT in identification of computerization needs.

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