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THE REGENERATION OF MANUFACTURING INDUSTRY

IN AFRICA,

WITH EMPHASIS ON AGRO-BASED INDUSTRIES

Studies on the rehabilitation of African industry

No. 10

Prepared by

Regional and Country Studies Branch

Industrial Policy and Perspectives Division

1992

PREFACE

As part of the programme of the Industrial Development Decade for Africa, UNIDO's Regional and Country Studies Branch is engaged in a series of studies to determine the major problems of African manufacturing and the potential for its regeneration. The purpose of these studies is to outline policies and measures that may result in overall improvements and to identify individual manufacturing plants for rehabilitation assistance.

Earlier documents in this series cover key issues and country-wide analyses, including six country-level diagnostic surveys on the rehabilitation of African agro-industry. Annex A provides a complete list of documents in this series, together with a list of other publications which were used in preparing the present report.

Country-level surveys have already been prepared for five sub-Saharan African countries (Angola, Kenya, Liberia, United Republic of Tanzania and Zambia) as well as for Morocco. The results for Morocco require additional explanation in some respects, due to manifest differences between Morocco (and other countries of the Maghreb) and the sub-Saharan countries with regard to levels of development, industrial capacity, and trade patterns.

The six surveys conducted to date are economic and policy diagnoses of agro-based industry. They provide estimates of resource requirements for rehabilitation of selected industrial plants as well as assessments of expected results from such rehabilitation. The surveys also provide the basis for forming national policy measures and advisory services, and for the full feasibility studies which are needed as a follow-up.

The country surveys are based upon UNIDO field missions to each of the countries concerned: Zambia (21 May - 17 June 1988), Angola (1-30 September 1988), Liberia (7 January - 4 February 1989), Tanzania (10 February - 10 March 1989), Morocco (4-31 March 1989) and Kenya (5 January-2 February 1990). A listing of the persons met and documents reviewed for each of the country surveys is provided in the respective country surveys.

This industrial rehabilitation overview has been prepared by the Regional and Country Studies Branch, Industrial Policy Perspectives Division, UNIDO with inputs from Mr. Benjamin O. Botchway, a UNIDO in-house consultant.

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MAP OF AFRICA INDICATING COUNTRIES STUDIED

The countries covered in this series of studies lie primarily in a broad band between Egypt and the Maghreb in the north, and South Africa and Namibia in the south. The map in figure 1 below indicates the countries which are included in this subregion, and also highlights the six countries which have already been the subject of a diagnostic study (Angola, Kenya, Liberia, Tanzania and Zambia in sub-Saharan Africa, and Morocco in the Maghreb), as well as the five other countries which have been tentatively selected for the next phase (Cameroon, Gabon, Somalia and Uganda) of rehabilitation surveys. It has to be noted, however, that political turmoil in Somalia has place a major setback on field mission schedule to that country. Preliminary work has been done on Uganda and Gabon. The second phase of the rehabilitation survey covering the latter set of countries is right underway.

Figure 1: Regeneration of manufacturing industry in Africa

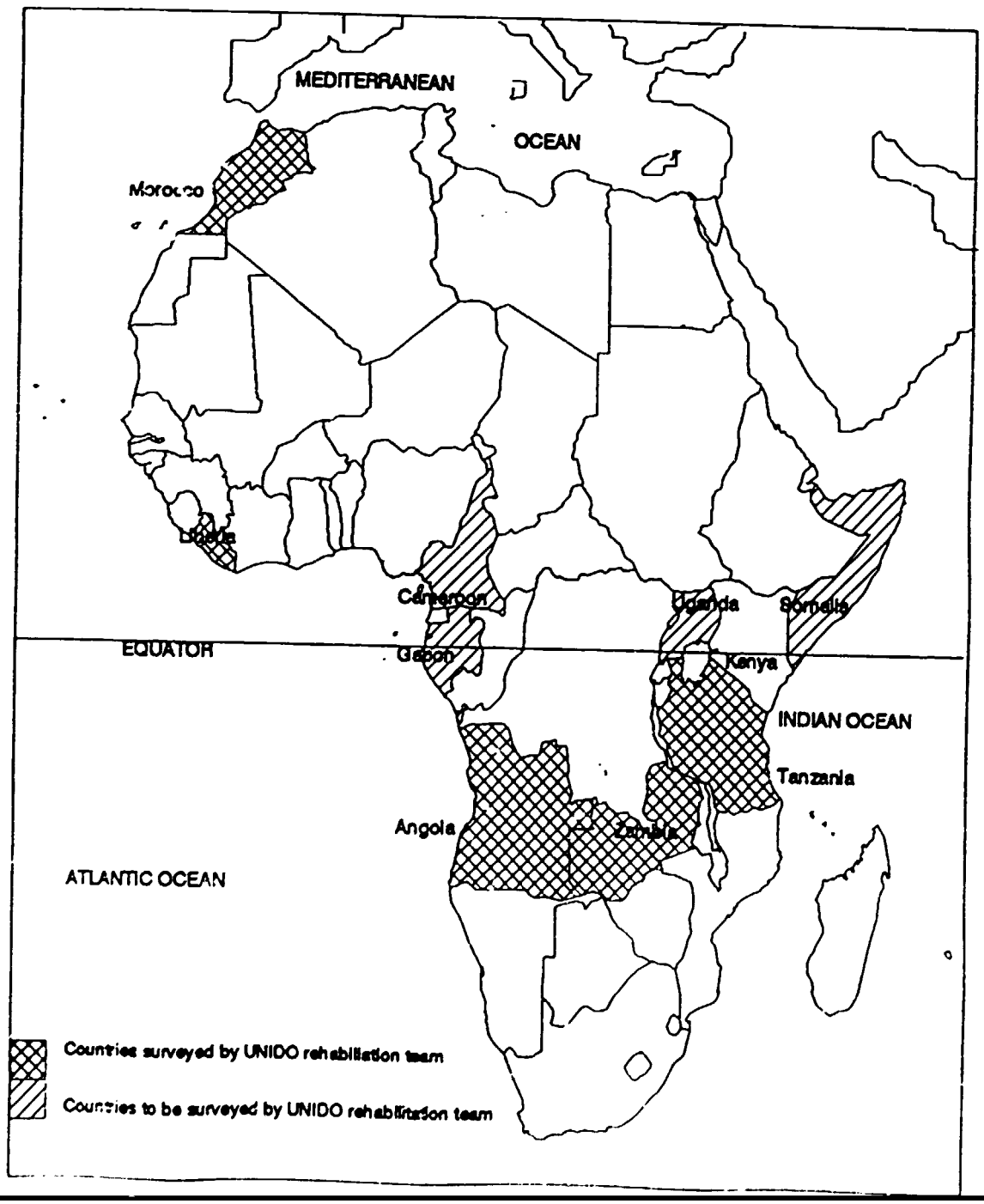


Table 1: GENERAL INFORMATION ON COUNTRIES STUDIED*

	Angola	Kenya	Liberia	Morocco	Tanzania	Zambia
AREA (sq. km.)	1,246,700	582,646	111,409	447,000	945,000	752,600
POPULATION	9,100,000	21,800,000**	2,350,000	23,290,000	23,500,000	7,200,000
POPULATION DENSITY (1987) sq. km.)	7	37.4	22	51	24	8
POPULATION GROWTH RATE (per cent/year)	2.8	3.7**	3.4	2.3	3.3	3.6
CAPITAL CITY	Luanda	Nairobi	Monrovia	Rabat	Dar es Salam	Lusaka
OTHER LARGE CITIES	Benguela Huambo Lobito	Mombasa Nakuru Machakos	Gbarnga Tchien Buchannan	Casablanca Fez Marrakech	Musoma Dodoma Tanga	Kitwe Ndola Mufilura
OFFICIAL AND/OR U.N. LANGUAGES	Portuguese French	English Kiswahili	English	Arabic French	English Kiswahili	English
GDP (US$ million)	4157.3	8000.7**	829.1	47110	5481.9	3992.6
GDP PER CAPITA (US$)	463	393**	369	800	232	548
GDP/CAPITA GROWTH RATE (per cent/year)	−5.2	4.8**	−2.5	3.7	−0.9	−2.8
ORIGINS OF GDP BY SECTOR (per cent)						
Agriculture	44.1	30.8***	17.3	13.5	39.5	16.5
Manufacturing	2.2	11.5***	8.7	15.1	6.6	19.7
Industry	24.9	7.[illegible]***	14.9	9.8	1.8	15.7
Services and other	28.8	50.1***	41.8	61.5	52.1	48.1
CURRENCY EXCHANGE RATES (US$ 1.00)						
OFFICIAL	Kz 29.77	KSh 17.75***	LS 1.0	DH 8.3	Tsh 130	ZK 8.05
PARALLEL			LS 2.3			

(table cont.)

EXPORTS						
(US$ mn, f.o.b)	1,976	748***	291.1	2,799	400	903
IMPORTS						
US$ mn, c.i.f.)	1,384	1,431**	233.8	4,220	1,200	712
PRINCIPAL EXPORTS	Petroleum Diamonds Coffee	Coffee Tea Petroleum products	Iron ore Rubber Timber	Phosphates Textiles Citrus fruits	Coffee Cotton Sisal	Copper Copper Cobalt
INFANT MORTALITY RATE (per cent)	20		12.2	9.7	11.1	8.8
LIFE EXPECTANCY:						
MALE (years)	40.4	54	53.9	56.1	50.6	49.6
FEMALE (years)	43.6	56	56.3	59.4	53.0	53.1

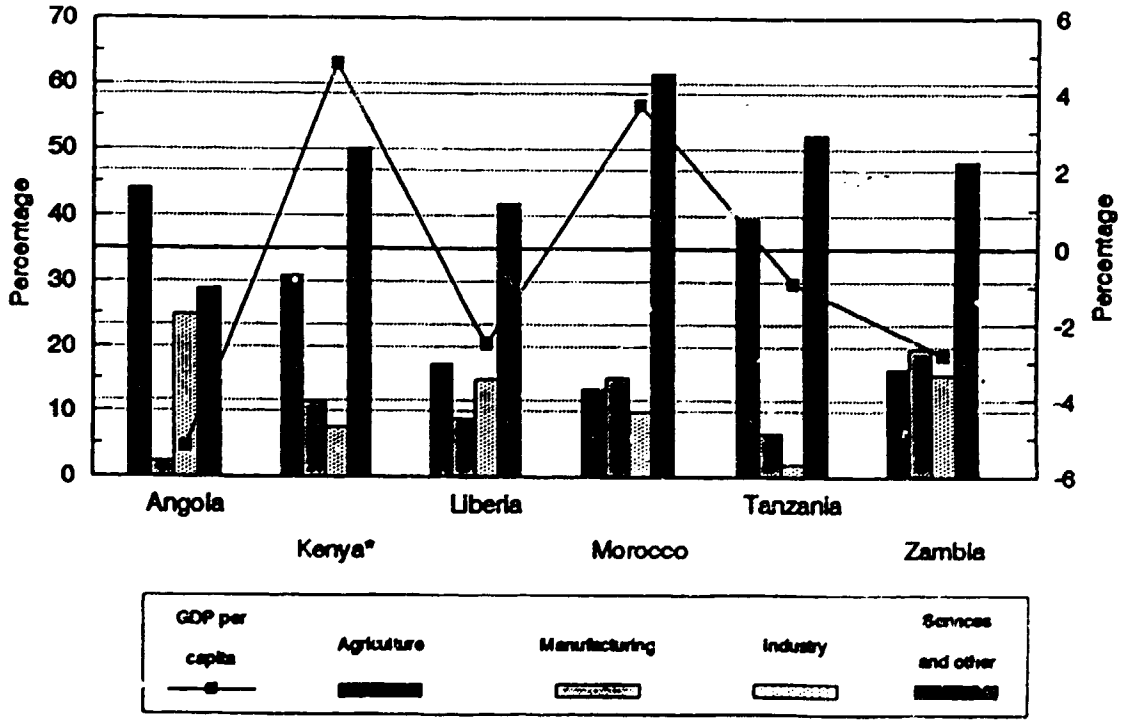
Source: UNIDO, Statistical and Sectoral Studies Branch.

Note: * Unless otherwise indicated, all economic data indicated is for 1985, social statistics are for 1986.

** Data indicates is for 1987.

*** Data indicated is for 1988.

Figure 2: Origin of GDP by sector, surveyed countries, 1985-1988



Source: UNIDO, Statistical and Sectoral Studies Branch.

Note: * 1988 data, others 1985.

LIST OF ABBREVIATIONS

c.i.f.	Cost, insurance and freight
DH	Dirhams (Moroccan currency)
ECA	Economic Commission for Africa
ECOWAS	Economic Community of West African States
ERP	Economic Recovery Programme (Liberia)
f.o.b.	Free on board
GDP	Gross domestic product
GNP	Gross national product
IDDA	Industrial Development Decade for Africa
INDP	Interim National Development Plan (Zambia)
Ksh	Kenyan shilling(s)
Kz	Kwanza (Angolan currency)
L$	Liberian Dollar(s)
MARIUN	Mano River Union
MVA	Manufacturing value added
n.e.s.	Not elsewhere specified
OAU	Organization for African Unity
PTA	Preferential Trade Area for East and Southern Africa
SADCC	Southern African Development Co-ordination Conference
SEF	Saneamento Economico e Financeiro (Angola)
SITC	Standard International Trade Classification (revised)
SSA	Sub-Saharan Africa
TSh	Tanzania Shilling(s)
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
ZK	Kwacha (Zambian currency)

PART 1

CHAPTER 1

BACKGROUND TO THE UNIDO PROGRAMME

1.1 Industrial rehabilitation in Africa

Recognizing the economic and industrial crisis facing Africa, the African Heads of State and Government proclaimed the 1980s as the Industrial Development Decade for Africa (IDDA). The UN General Assembly subsequently called upon UNIDO to formulate, in co-operation with the secretariats of the Organization for African Unity (OAU) and the Economic Commission for Africa (ECA), proposals to implement the IDDA programme and monitor its progress. The jointly elaborated programmes of the IDDA I and IDDA II (with the twin objectives of self-reliance and self-sustaining industrialization at the national and regional levels) were subsequently adopted by the governing bodies of the OAU, ECA and UNIDO.

In fulfillment of this programme, UNIDO formulated an integrated multi-disciplinary approach to the problem of industrial rehabilitation in Africa. This approach was subsequently adopted by the General Conference. Keeping in mind the complexity of the rehabilitation issues, UNIDO is carrying out support activities at all relevant levels:

- at the macro-industrial policy level, in order to remove major obstacles to industrial development;
- at the subsectoral level, encompassing firms which are engaged in similar and interrelated manufacturing activities, and;
- at the enterprise and plant level, in order to cope with critical bottlenecks identified in co-operation with government authorities.

Under this programme, the Regional and Country Studies Branch (REG) has conducted diagnostic studies in individual countries in order to determine the major problems of African manufacturing and the potential for its regeneration. The aim of this set of studies is to provide a basis for policies and measures that may lead to overall improvements in the field of industry, and to identify individual plants for rehabilitation assistance.

1.2 Focus on the rehabilitation of agro-industry

Manufacturing industry is recognized as having a crucial role to play in the recovery and renewed growth of African economies. Even in countries where the agricultural sector is expected to take the lead role, industry has a major role to play in supplying the needs of fast-growing populations, for consumer goods and employment. Furthermore, manufacturing growth is required to provide inputs and equipment to other economic sectors, thus reducing the need for imports and diversifying the sources of foreign exchange.

The emphasis of the current studies on rehabilitation of African industry is on agro-industries, not only because they currently dominate African manufacturing, but also because they constitute a key element in attempts to diversify exports, and continue to play an essential role in improving the supply of basic needs goods to African populations. Development of agro-industry is also needed in order to sustain and increase demand for agricultural produce, and create the tradition for domestic resource-based industrialization.

In view of the many constraints on its development, it is not surprising that structural change in African industry has been slow. Although there has been a discernible shift away from food products, hitherto the dominant manufacturing subsector in virtually all African countries, there has been negligible growth in heavy and high-technology industries such as electronics or transport equipment which have led industrial growth

in some developing countries such as Taiwan and the Republic of Korea. Major capital and intermediate goods or export-oriented manufacturing industries are not well developed in any African country. Opportunities to diversify and expand industries through the exploitation of regional markets and through regional co-operation have been only marginally explored, with some notable exceptions in SADCC.

1.3 Selection of countries for rehabilitation efforts

The selection of countries for in-depth study was based on several factors. The selected countries are, except for Morocco (with a GDP of US$ 22,875 million and US$ 25,182 million in 1987 and 1989 respectively), relatively low-income even by African standards, but have acquired a significant industrial base. For the most part, they rank in the middle range of African countries according to classifications relating to GDP, MVA, etc. In 1987, the GDP of Kenya was as high as US$ 9,269 millions, and Liberia's nearly US$ 1 billion. Zambia and Kenya have achieved significant industrial base; their manufacturing sector accounted for 24.58 per cent and 14.21 per cent to GDP in 1989 (see tables 3, 4 and 5).

In making the final selection of countries for the rehabilitation survey, an effort was made to achieve a balance among Africa's sub-regions and major linguistic groupings, as well as among the various (shifting) political and economic orientations currently found in Africa. Although the initial set of six countries (i.e., Angola, Liberia, Morocco, Tanzania and Zambia) excluded central and francophone Africa, the next phase of rehabilitation studies (which is likely to focus on Cameroon, Gabon, Kenya, Somalia, and Uganda) will bring about a better geographical and linguistic balance. With respect to country size, standard of living, and general politico-economic orientation, a relatively good balance has certainly been achieved.

1.4 The choice of firms for in-depth study

Due to the complexity of the development process within and among the African countries, no one single criteria was considered in the selection of candidate firms for rehabilitation. Instead, a multiple set of criteria and factors were considered. Some of the selection criteria considered included the following:

- the representative nature of the enterprises in terms of their geographical situation (including East/West/Southern Africa, landlocked/non-landlocked, desert/non-desert);

- the representative nature of the enterprise in terms of the level and nature of its production, commercial operation and financial standing, and;

- the importance of the enterprise as a "model" for similar enterprises in other African countries.

For example, efforts were also made to achieve a geographical balance within the countries selected for study, making sure to include firms located in areas outside the capital city. Although this was not possible in every case (as, for example, in Angola, where the security situation severely limited travel), it was achieved to a certain extent in each of the other countries (for example, including one firm in Zanzibar, which has a somewhat different economic situation to mainland Tanzania).

Factors considered in the selection of the candidate firms for rehabilitation included the following:

- the urgent need to assist in the rehabilitation of the enterprise;

- the potential for the rehabilitated enterprise as a foreign exchange earner;

- the nature of the problems being experienced in enterprises as typical for Africa or for the specific sub-region under consideration;

- the role of the enterprise as a model for similar enterprises in other countries (e.g., in terms of technology, foreign exchange earning capacity, employment creation);

- the motivation of the enterprise, the appreciation/understanding of the management of the enterprise of the need to rehabilitate, and its willingness to do so, and;

- the effects of external forces and national macroeconomic policies on the enterprise and the probability of success of implemented rehabilitation programme (e. g., the probable availability - of financing, probable availability of affordable imported equipment).

On the basis of the above selection criteria and factors, the 23 candidate enterprises selected seem to have the following capabilities:

- a good future economic potential and and a good basis for rehabilitation programme assistance;

- high possibilities to attract funding from donor(s), banks and or commercial enterprises;

- economic capacity to reduce imports and/or increase exports;

- good potential for creating maximum number of forward and backward linkages in order to enhance the impact of eventual rehabilitation efforts;

- ability to mobilize domestic resources and utilize locally available materials, and to effect a positive resonnance from promising entrepreneurs and the private sector;

- a significant employment generation potential, and;

- good chance to contribute to regional/sub-regional co-operation and integration.

In effect, the choice of firms also reflected the objective look at branches of agro-industry which are most suitable for rehabilitation. Selected enterprises of the agro-industry branch included the following: fruit and vegetables products; meat and fish products; dairy products; animal feeds; oil-seeds; cereal milling; packaging materials; and wood processing. Information on these agro-industry branches are given in section 4, and those of the 23 enterprises in the 6 countries in section 5 below.

1.5 The country-level diagnostic survey approach

The series of in-depth country studies are based upon the work of multidisciplinary field teams, who provided in each case analysis of the performance of manufacturing industry in the overall economic framework and within the context of changing external economic conditions. This approach to rehabilitation was carried out as a team effort, integrating policy, economic, technological, managerial, financial and marketing dimensions.

Each of the UNIDO field missions was composed of experts from a number of areas, generally including one or more economists, industrial engineers and management or marketing specialists. The UNIDO teams were supported by national experts in each area of specialization. In addition, the government concerned designated a senior official in the relevant ministry as overall co-ordinator. A Liaison Officer was appointed in each country to handle appropriate matters between the team and its government counterparts.

The UNIDO team in each instance performed the diagnostic surveys, and interviewed government officials as well as industry and donor agency representatives. The team formulated recommendations not only for specific rehabilitation projects but also for improvements in the overall economic policy environment. The composition of the teams facilitated production of final reports covering the full spectrum of the most relevant issues, from macro-economic to plant-specific, including specific recommendations and follow-up measures.

The findings and recommendations largely concern rehabilitation of individual plants, but are accompanied by recommendations of a more general nature, for improved performance at the branch, sub-

sector and sector level. The plants selected for rehabilitation should be seen as pilot projects; the lessons drawn from their rehabilitation, along with improvements in the industrial environment, should help to initiate a process of regeneration in the sector.

CHAPTER 2

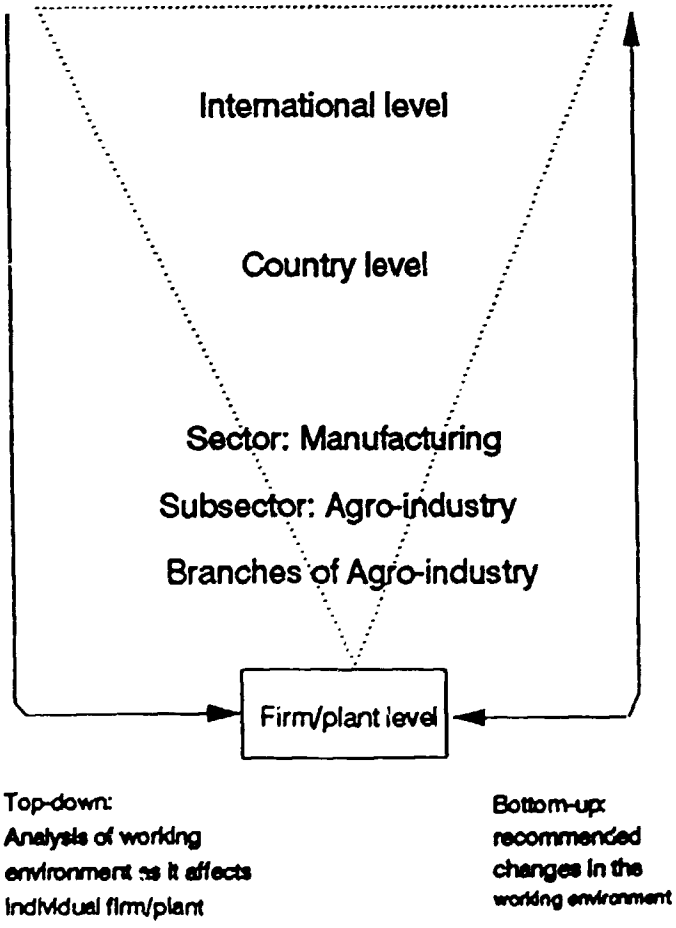
METHODOLOGY EMPLOYED IN SPECIAL REPORTS ON INDUSTRIAL REHABILITATION

2.1 A "Top-down/Bottom-up" rehabilitation strategy

In order to assure that all relevant problems are considered in an assessment of industrial rehabilitation issues, the UNIDO team started with an examination of macro-economic conditions, proceeded to consider factors which are most relevant at the sectoral or sub-sectoral level, and concluded with detailed studies of individual plants which best illustrated the problems (in the dimensions of management, financial, marketing, maintenance and repair, supply of inputs etc.) of industrial development at the national and sectoral level.

The "top-down" component of the UNIDO approach (see figure 3) proved particularly useful in selecting the firms to be studied, and identifying the full range of variables which need to be considered. This perspective was then complemented by a "bottom-up" approach, which looked at all relevant constraints from the perspective of the individual firm, in order to devise an appropriate strategy for action. In other words, the assessment of the rehabilitation climate of industry including the changes in the economic and institutional environment (eg. government tariff policies, regulations concerning the allocation of foreign exchange, etc.) was considered.

Figure 3: The manufacturing plant and its working environment: Top-down/Bottom-up Approach



Source: UNIDO, IPP/PPD/REG.

The first level of analysis thus involves a brief general assessment of conditions and developments in the global environment and in the region that may influence the domestic manufacturing sector of the country under review. The second level of analysis involves a study of rehabilitation needs in the particular country. The next level of analysis involves the sector or sub-sector, in this case referring to branches of the manufacturing sub-sector which are characterized as agro-industry. Assessments at the level of the individual firm or plant constitute a fourth and even more specific level of analysis.

A multi-level approach avoids many of the pitfalls which would arise from concentrating only on plant-level technical problems. The approach helps to elucidates the factors affecting the creation of an "enabling environment" for industry and helps to suggest appropriate policy and institutional changes needed. It also assures that technical assistance are not carried out in isolation, separated from analyses of financial requirements, market possibilities or input availabilities. It helps to avert formulation of assistance on such a narrow basis that only some of the constraints are addressed. It enables the assessment of options which might otherwise be overlooked or withheld from consideration, including plant closure, if that is the most forward-looking measure within a comprehensive strategy for establishing an industrial structure with good prospects for sustained growth.

Experience has shown that manufacturing industries which overcome specific internal problems may not escape the obstacles imposed by overall economic conditions and government policies. The broader task is therefore to combine the plant rehabilitation process with a restructuring programme of the industrial sector as a whole which will enable dynamic growth, domestic economic integration, and provision of necessary support services and industries. A parallel task involves adjustment of the policy and administrative framework to give better support to the domestic and international efforts towards industrial regeneration.

In general, the concept of industrial rehabilitation is interpreted as bringing about the optimal use of existing capacities and resources for future industrial growth, thus contributing to a regeneration of the African industrial process. Improved productivity resulting from better utilization of installed capacity is seen as the most effective and economic means of restoring growth in African industry. The challenge is to identify and assist those enterprises which can make most efficient use of scarce foreign exchange and other investible resources to improve company performance and thereby have the maximum impact on overall growth.

The UNIDO surveys thus move toward an approach aimed at providing a broader diagnosis and recommending a wider range of action. Industrial rehabilitation is seen as involving much more than technical or technological aspects; proposals for restructuring, both at the subsector and plant level, must take into account the economic and financial aspects, as well as the management structure, product technology and range, and domestic and foreign markets. Although available human, physical and financial resources are to be concentrated on a few manageable projects, attention must also remain focused on macro-economic, marketing and technological developments.

Surveys based on this approach thus seek to assist African governments to link the macro-economic, sectoral and project issues in making decisions on rehabilitation and upgrading of production. This approach is also expected to increase the survival rate of the particular plants or sub-sectors in which rehabilitation projects are undertaken, if concomitantly the context in which the selected plants and subsectors will have to operate is given due consideration.

In this connection, the issue of regional and sub-regional co-operation is vital. For many countries, rehabilitation of industry presupposes enlargement of the narrow domestic market, joint provision of raw material supplies by several neighboring countries, or other forms of co-operation. Appropriately designed rehabilitation programmes therefore need to be based on an assessment of possible co-operation modalities among some African countries in selected subsectors.

Industrial rehabilitation must be a dynamic, forward-looking concept. To restore industry to a former state or level of activity may not be sufficient, in the context of rapidly changing world economic conditions which may have been a contributing cause of the industry's poor performance in the first place. Achieving the objectives of industrial rehabilitation may therefore entail a re-examination of basic premises and a

reformulation of strategies.

2.2 Indicators for macro-economic rehabilitation

The country studies each follow a similar sequence, looking in turn at the international, national, and sectoral considerations before turning to the perspective of the individual firm. Each country study thus begins with a look at the full range of macro-economic influences which may constrain an individual country's options. These international concerns include not only global economic conditions, but also those at the level of the region (i.e. Africa) and the sub-region (e.g. SADCC or ECOWAS). The main concern, however, is the national level, including any sub-national political units (e.g. Zanzibar) which may be relevant.

Country-level analysis looks at key characteristics of the country's administration and economy, including general fiscal or monetary policies. An effort is made to diagnose in depth the precise reasons for and scope of the problems, the major constraints faced by industry, and the increasing challenges in a particular sub-sector or country. The nature and magnitude of underlying constraints is considered. First, in order to assess the general viability of many rehabilitation efforts, and secondly, to identify the precise type of measures or issues which should be examined in greater detail as part of the subsequent effort of detailed rehabilitation work at the level of the sector or firm. A broad classification of current problems and their causes and an initial assessment of the feasibility of industrial rehabilitation will facilitate the effective design and implementation of technical assistance in African countries.

The in-depth country studies cover the broad assessment of major constraints on production in terms of, among other factors, availability of financial resources (including foreign exchange), material inputs and human skills, technology, industrial structure and relevant infrastructure, and markets. The role of government policies and institutional measures is also examined in this context. Detailed examination is made of relevant data, information and surveys available in various national and international development co-operation agencies and research institutions including UNIDO, UNDP, the World Bank etc.

The major aspects of study include the following:

- the trend of prices and exchange rates;
- the level and growth trend of GDP (defined as GNP minus transfer payments);
- the composition of GDP by sector share, generally stated in terms of three sectors: agriculture (which also includes products obtained from forestry, fishing, hunting, and herding activities); industry in general, which encompasses mining (including petroleum) and construction activities, as well as the manufacturing subsector; and services, both public and private, including banking and trade;
- the current account performance, including levels of exports and imports, historic trends, and imbalances;
- the capital account factors such as net disbursed foreign debt, debt service ratios, recent debt repayments and/or restructuring measures; and historic trends, and;
- Government policies and recent economic reforms affecting general economic and industrial growth; industrial structures; sector composition of production; net export levels; levels of net borrowing.

2.3 Indicators at the sectoral level

At the sectoral level, industry is reviewed in terms of its overall characteristics, major problems and constraints, and trade, and an assessment of policies and institutions relating to the sector. For each country survey, there is a special focus on those branches of the manufacturing subsector which are closely related to agriculture.

The term "agro-based industries", or simply "agro-industry", refers to branches of the manufacturing sub-sector which use the products of the agricultural sector as their raw materials. In the African context, agro-industry uses predominantly local products, and thus has significant backward linkages with the agricultural sector. Agro-industry also has many significant forward linkages to the primary sector, as in the production of animal feed or of packaging materials needed for the export of agricultural products.

In terms of the International Standard of Industrial Classification (ISIC), the agro-industry generally include categories 31 (food, beverages and tobacco), 32 (textiles, wearing apparel and leather industries), 33 (wood and wood products) and 34 (paper and paper products). In some cases, ISIC code 35 (chemicals, rubber and plastics) is also applicable. Table 2 indicates the main categories of agro-industry.

These distinctions, however, should not be rigorously applied in cases where they conflict with a common-sense assessment; the definition of agro-industry depends ultimately on practical considerations, such as whether there are effective linkages with the agricultural sector. Not every product which falls within the SITC categories in table 1 should be considered agro-industrial. For instance, there would be no point in considering the production of soft drinks from imported concentrates, with almost no local content, as agro-industry, since there are no significant linkages to the agricultural sector. Certain products in SITC code 35 (e.g. fertilizers, pharmaceuticals, soap, rubber) may or may not be considered agro-industrial, depending on their input composition.

Each of the firms selected for study can in some sense be considered to fall within the category of agro-industry. Food processing (i.e. branch 31) accounts for 14 of the 20 firms studied. The two firms associated with textiles (branch 32) and the firm producing paper products (branch 34) are considered to be closely connected with agro-industry in that they provide packaging materials needed for marketing and export of agricultural products. Rubber products (branch 3559) and wood products (branch 33) fall clearly into the category of agro-industry, in that agriculture or forestry provides the major inputs. Plastic materials (branch 3513), which are the major output of one firm and the second largest output of another firm, do not normally fit into the category of agro-industry, but were studied in this context because of their valuable contribution in terms of packaging materials needed for export.

Each of the country studies focuses specifically on agro-industry, including an analysis of the following:

- the role of agro-industry in macro-economic development, including linkages to other sectors;
- MVA and MVA per capita;
- the level and trend of manufacturing exports;
- the number and size of firms, in terms of capital invested, labour employed, production levels, etc.;
- the share of public and private enterprises, and historic trends;
- obstacles to increased industrial production and/or exports, and policies directed toward removing these obstacles, and;
- policy or other external influences affecting the individual firm;

This level of analysis thus seeks to bring into consideration all aspects which may influence the decisions of managers of the individual firms studied.

Table 2: ISIC codes for industry, with emphasis on agro-industry

	2	Mining and quarrying
••	31	Manufacture of food, beverages and tobacco
••	3111	Slaughtering, preparing and preserving meat
••	3112	Manufacture of dairy products
••	3113	Canning and preserving of fruits and vegetables
••	3114	Canning, preserving and processing of fish
••	3115	Manufacture of vegetable and animal oils
••	3116	Grain milling products
•	3117	Manufacture of bakery products
•	3118	Sugar factories and refineries
•	3119	Manufacture of cocoa, chocolate and sugar confectionery
•	3121	Manufacture of food products not elsewhere specified
••	3122	Manufacture of animal feeds
••	313	Beverage products
•	314	Tobacco products
•	32	Textile, wearing apparel and leather industries
•	3211	Spinning, weaving and finishing textiles
•	3212	Manufacture of made up textile goods except garments
•	322	Wearing apparel, except footwear
•	323	Leather products
••	33	Manufacture of wood and wood products
••	3311	Sawmills, planing and other wood mills
	3320	Manufacture of furniture and fixtures
••	34	Manufacture of paper and paper products
••	3411	Manufacture of pulp, paper and paper board
••	3412	Manufacture of containers and boxes
	35	Chemical, petroleum, coal, rubber and plastic products
	3512	Manufacture of fertilizers and pesticides
	3513	Plastic materials
	3521	Manufacture of paints and varnishes
	3522	Manufacture of pharmaceuticals
	3523	Manufacture of soap and cleaning preparations
	3551	Tyre and tube industries
	3559	Rubber products not elsewhere specified
	36	Non-metallic mineral products
	361	Pottery, china and earthenware
	37	Basic metal industries
	38	Manufacture of fabricated metal products, machinery and equipment
	39	Other manufacturing industries
	5	Construction

Note: • Branches of agro-industry; •• Branches of agro-industry which have been included in this study.

2.4 Indicators at the level of the firm

At the level of the individual firm, a detailed analysis was made of the rehabilitation needs of each firm, with specific recommendations for rehabilitation efforts, in terms of the following:

- overall management and organization;
- financial structure;
- physical plant and production capacity;
- maintenance and repair;
- availability and quality of inputs;
- quality and quantity of outputs;
- cost and pricing policies, and;
- marketing practices.

The firm is the smallest decision-making unit in this model. Although study of a firm's operations involves observations on individual plants or functional departments, these units are created by, and thus are responsive to, decisions made by managers of the firm as a whole, even where they have delegated a significant degree of authority to managers at the plant or departmental level.

The firm is thus the unit of analysis to be studied at the micro-economic level, just as the nation is the unit of analysis at the macro-economic level. Sectoral or branch-level information is regarded as an aggregation of performance data relating to the individual firm, even though a sector as a whole can be influenced by government policies or external constraints. In plain terms, sectors or branches do not make decisions; governments and firms do. Similarly, there are no supranational institutions in Africa or its sub-regions capable of countermanding decisions made by individual states; to the extent that states adopt common policies, it is by their own decision.

For each level of analysis, there is a need to look at the full range of variables concerned, to classify these variables, and to describe their interrelationships. In the model applied here, this involves consideration of constraints, institutions, policies, performance variables, and objectives.

- Constraints are "uncontrollable variables", both internal and external to the system, which can prevent even the best-designed policies and institutions from achieving development objectives.

- Institutions provide the framework in which each actor must operate; they are considered to be partially under the control of policy-makers, in that they cannot be changed easily or without unforeseen consequences.

- Policies are "controllable variables" which can be used to achieve objectives, either as their primary aim or as a side effect.

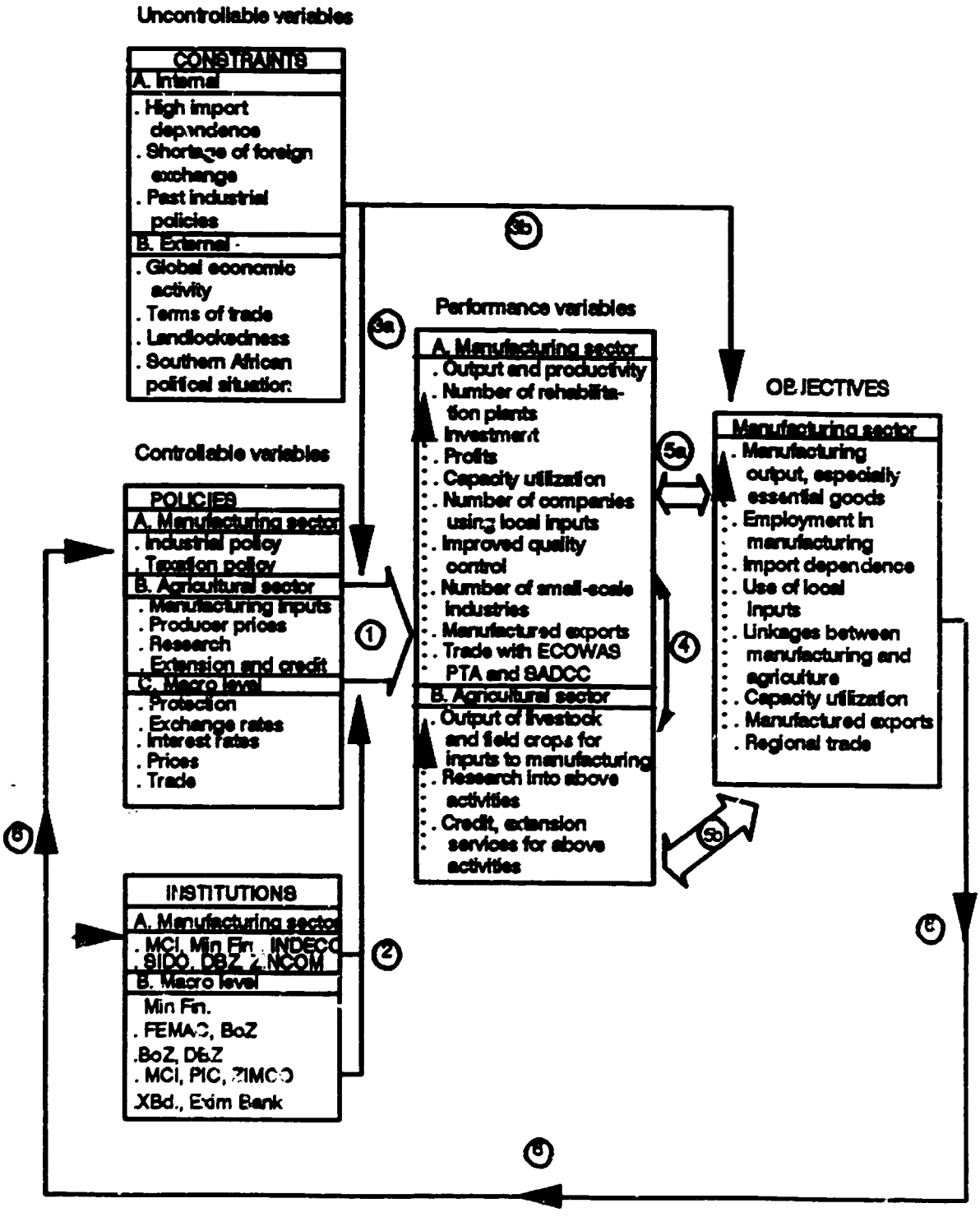
- Performance variables indicate the extent to which progress has been made toward the achievement of specific objectives, whether or not such changes have been brought about by means of the set of policies pursued.

- Objectives need to be expressed in clear terms what the policies are meant to achieve, and serve as a guide to the selection of performance variables.

Figure 4 shows in schematic form the relationships among each set of variables at the country level. It illustrates how constraints, institutional structures and policy measures together influence performance (arrows 1, 2, and 3a). Performance variables in turn influence the achievement of objectives (arrows 5a and 5b), allowing where necessary for the influence of certain uncontrollable variables (arrow 3b). The achievement of objectives in turn affects the future choice of policies and structure of institutions but not, by definition, the set of uncontrollable variables.

A similar type of chart would apply to other levels of analysis, although the content would differ considerably, taking into account the actual situation experienced by the decision-makers at the level concerned. Certain policies which are controllable variables at the government level are considered uncontrollable variables at the level of the individual firm. In general, the firm faces the largest number of uncontrollable variables, although this depends in part on the degree to which institutions at higher levels permit independent action.

Figure 4: Classification of and relationship among major macroeconomic variables



CHAPTER 3

KEY CHARACTERISTICS OF THE MANUFACTURING SECTOR IN AFRICA

3.1 Overview of African economic development trends

The major economic development trends affecting the manufacturing sector in Africa are considered below in terms of: overall economic growth; agricultural sector growth; industrial sector growth; sector composition of GDP; employment and wages; and indicators for social development.

(a) Economic growth trends

Per capita GDP growth rates continue to stagnate or even decline in most African countries. Per capita income levels continue to be desperately low throughout much of Africa; sub-Saharan Africa continues to account for more than two-thirds of the 53 countries considered by UNIDO[1] as having an annual per capita income lower than $400.

The adjustment programmes currently imposed on some African countries by multilateral and bilateral donor organizations have in some cases worsened the economic and social circumstances of individuals at the middle and lower end of the social scale. Comparing the countries which have adopted reform programmes to those which have not, the World Bank report[2] on economic growth in Africa since 1980 nevertheless concluded that reforms and additional assistance have placed the reforming countries in a favourable position with regard to exports, GDP growth rates and investment.

A recent ECA report[3] underscores the disappointing achievements in recent years with regard to the economic and social dimensions of African development. Despite the positive aspects of some of the structural adjustment programmes, however, the overall adverse impact of the external economic environment has not allowed for a substantial change in African economic development. According to the ECA report,

> "GDP rose only by 1 per cent in 1986 and by a mere 0.7 per cent in 1987. Worse still, per capita income fell by 2.0 and 2.2 per cent in those years respectively."

The economic situation in sub-Saharan Africa (SSA) is presented in a differing light by the World Bank and UNDP report, which maintains that the economies of sub-Saharan Africa have indeed begun to recover, and that a closer examination of African economic development trends would show a less dismal picture than is usually presented. For example, the World Bank report shows that nominal export earnings for most countries were higher in 1987 than in 1978. A change in World Bank thinking is indicated by its support for programmes to mitigate the social costs of adjustment in Ghana and Uganda.

It should be pointed out, however, that the World Bank study's conclusions exclude the five major oil-exporting countries (i.e. Angola, Cameroon, Congo, Gabon and Nigeria, which together account for nearly 60 per cent of sub-Saharan Africa's GDP and half of its total exports); such an omission significantly affects the overall conclusions, since oil-producing countries were adversely affected by the fall in oil prices in the greater part of the 1980s, in contrast to all other sub-Saharan countries, which benefitted from this trend.

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1. UNIDO, Industry and Development - Global Report 1988/89.

2. World Bank and United Nations Development Programme, Africa's Adjustment and Growth in the 1980s, new York, April 1989.

3. United Nations Economic Commission for Africa, The Economic Report on Africa 1989, Addis Abeba, April 1989.

The estimated growth rate of 2.3 per cent of GDP in 1988 for the sub-Saharan countries as a whole does not in itself indicate a turnaround of the hitherto poor rate of development, in view of the generally sluggish growth rate from 1980 through 1988. Also, it must be kept in mind that SSA as a whole has an annual population growth rate of 3.1 per cent which yields a negative rate of growth in per capita income. In general, per capita income is only 80 per cent the level reached at the beginning of the 1980s.

The World Bank report nevertheless detects "room for optimism" in the developments of recent years, pointing out, for example, that the 2.3 per cent annual average growth rate of GDP between 1985 and 1987 for sub-Saharan countries would rise to 2.9 per cent if the oil-exporting countries are excluded. On this same basis, the World Bank computed a GDP growth rate of 2.1 per cent in 1987 for non-oil-exporting sub-Saharan African countries, and a projected 5 per cent growth rate for 1988. The reasons attributed by the World Bank for rising growth rates relate to successfully implemented policy reforms in some SSA countries.

Whereas developed and non-oil-exporting countries achieved an average of 3.9 per cent growth in GDP during the period 1985-1988, most countries of Sub-Saharan Africa experienced at best a modest increase in GDP in the 1980s. Of the 53 countries for which data is presented in table 3, less than one third achieved GDP growth rates of at least 3.9 per cent in the period 1980-1989; almost one half achieved a positive growth rate of 1.0 to 3.9 per cent during this period, but only just, if at all, keeping pace with population growth, and the rest were characterized by negative or statistically insignificant growth rates.

Of the six countries selected for the first set of UNIDO studies on industrial rehabilitation, only two countries (Kenya and Morocco) achieved a relatively high average annual growth rate (5.3 and 4.1 per cent) during the period 1985-1989. Another three countries, Tanzania, Angola and Zambia achieved positive annual growth rates (3.9, 3.2 and 2.8 per cent, respectively) during this period, and the remaining one, Liberia, actually had negative growth rates (-1.39 per cent). Furthermore, it is evident from table 3 and figure 5 that each of the six economies performed less well in the period 1980-1989, than in 1985-1989.

Table 3: Rate of growth of gross domestic product (GDP*), Africa

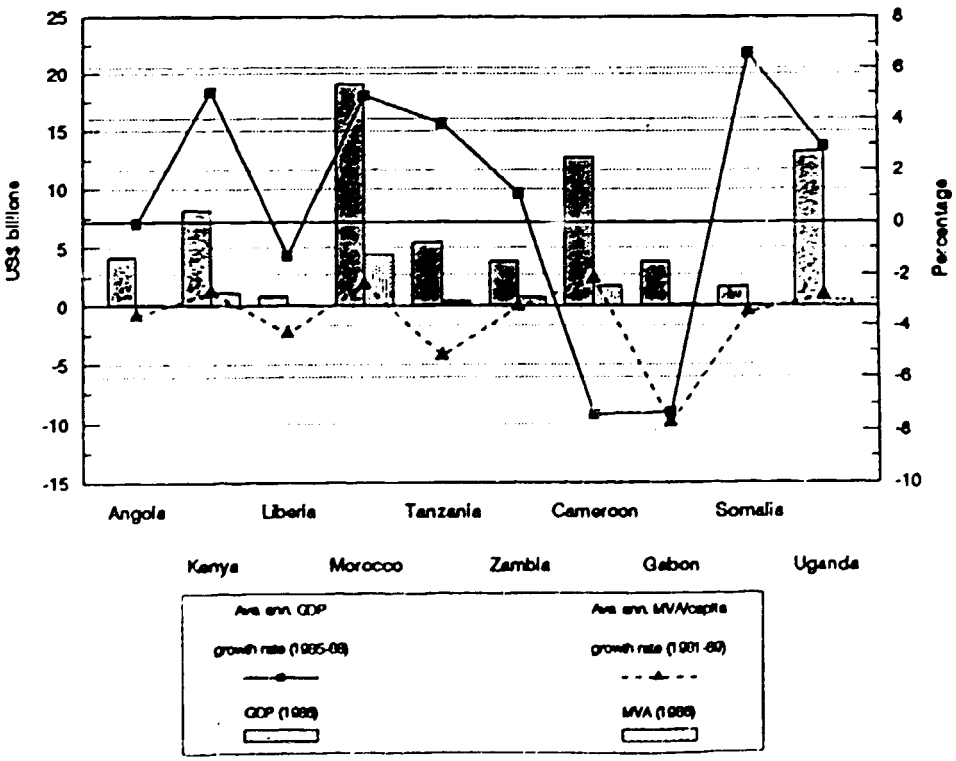
Country	GDP (in US$ millions) 1987	1989	Annual rate of growth of GDP 1988	1989	Average annual rate rate of growth of GDP 1980–1989	1985–1989
Algeria	53,539	56,607	2.70	2.95	3.37	0.86
Angola	4,294	4,509	3.68	1.28	3.46	3.17
Benin	1,167	1,227	6.64	−1.40	0.11	0.28
Botswana	1,855	2,294	8.98	−13.54	11.36	9.44
Burkina Faso	1,514	1,591	2.05	2.99	2.18	2.44
Burundi	1,306	1,351	1.99	1.43	3.97	2.87
Cameroon	8,661	7,558	−7.23	−5.94	1.34	−3.54
Cape Verde	0,217	0,245	6.95	5.50	6.13	6.02
Central Afr. Rep.	0,904	0,951	1.47	3.70	2.18	1.75
Chad	0,562	0,943	8.50	0.92	−0.04	4.29
Comoros	0,181	0,191	3.27	2.60	3.60	3.09
Congo	2,692	2,525	−6.40	0.20	3.15	−3.00
Côte d'Ivoire	10,867	10,534	−1.82	−11.31	0.50	−0.58
Djibouti	0,376	0,382	2.41	−0.80	1.70	2.03
Egypt	40,089	43,154	2.20	5.33	7.27	4.05
Eq. Guinea	0,050	0,052	5.28	−2.76	2.23	2.40
Ethiopia	4,826	5,038	1.40	2.95	2.13	4.38
Gabon	3,064	2,989	−6.20	4.00	−4.56	−9.72
Gambia	0,301	0,356	9.72	7.96	4.25	7.25
Ghana	5,167	5,822	6.20	6.10	2.75	5.56
Guinea	1,997	2,106	1.29	4.11	1.28	3.78
Guinea–Bissau	0,188	0,211	6.94	5.00	3.46	5.63
Kenya	9,269	9,978	6.06	1.50	3.99	5.25
Lesotho	0,428	0,489	11.85	2.09	3.23	6.17
Liberia	0,963	0,937	−1.40	−1.40	−0.60	−1.33
Libya	28,384	29,849	2.29	2.80	−1.01	−0.10
Madagascar	3,249	3,397	2.24	2.24	1.13	2.24
Malawi	1,442	1,553	2.58	4.96	3.05	2.56
Mali	1,914	2,178	4.49	9.87	3.09	6.38
Mauritania	0,950	0,984	3.38	3.59	1.84	2.86
Mauritius	1,718	1,903	6.77	3.71	6.17	7.74
Morocco	22,875	25,182	6.92	2.96	3.37	4.05
Mozambique	2,037	2,191	4.55	2.90	−1.64	3.69
Namibia	1,985	2,034	2.25	0.20	0.23	2.19
Niger	2,487	2,567	6.99	−3.51	0.78	0.99
Nigeria	75,689	82,383	4.67	3.99	−1.02	1.32

(Table 3 cont.)

Country	GDP (in US$ millions) 1987	1989	Annual rate of growth of GDP 1988	1989	Average annual rate rate of growth of GDP 1980–1989	1985–1989
Reunion	2,692	2,683	4.02	−4.17	3.65	2.65
Rwanda	1,410	1,388	3.27	−4.68	2.04	0.84
Senegal	3,719	3,837	4.85	−1.62	2.99	2.97
Seychelles	0,161	0,177	3.65	5.80	2.88	3.25
Sierra Leone	1,210	1,171	−0.70	−2.47	0.67	−0.19
Somalia	3,934	4,056	0.56	2.52	3.83	3.28
South Africa Rep.	86,075	91,484	4.10	2.10	1.33	2.27
Sudan	8,504	8,197	−1.82	−1.82	0.15	−1.82
Swaziland	0,710	0,799	8.09	4.10	4.07	5.70
Tanzania	5,715	6,203	3.98	4.38	2.19	3.89
Togo	1,168	1,253	3.45	3.70	1.78	4.47
Tunisia	11,175	11,687	1.46	3.08	3.31	2.44
Uganda	13,395	15,307	7.23	6.56	1.18	4.03
Zaire	6,966	7,086	2.00	−0.27	1.82	1.74
Zambia	4,113	4,377	6.28	0.13	1.03	2.83
Zimbabwe	6,690	7,432	5.21	5.59	2.91	2.86

Source: UNIDO, Statistical and Sectoral Studies Branch.
Note: GDP* in constant 1980 US dollars.

Figure 5: Rate of growth of GDP and MVA, 1981-89



Source: UNIDO, Statistical and Sectoral Studies Branch
Note: GDP and MVA in 1980 constant US $ billions

(b) Agricultural sector growth trends

Agriculture, the major source of livelihood in virtually all African countries, has not been able to meet the essential food supply needs of fast-growing populations in Africa. For most countries, agricultural export earnings, the principal source of foreign exchange, have dropped dramatically. However, table 4 indicates the important role of agriculture. Agriculture was the most important sector in terms of GDP share in almost one third of African countries in 1989.

The favorable situation in some of the African countries regarding their agricultural performance in 1988 and 1989 was due mainly to weather conditions, which have enabled almost a doubling of crop revenue in recent years. Due to the overall favourable performance of the agricultural sector, cereal production increased. According to FAO statistics, cereal production increased from 72.1 million tonnes in the period 1979-81 to 91.5 million tonnes in 1988, a rise of 27 per cent., due mainly to slight improvement in climatic conditions. The proportional contribution of agriculture to GDP has actually increased in recent years.

In spite of recent improvements, there continues to be a precarious situation in Ethiopia, Sudan, Angola, Somalia and Mozambique, together with the threat of locust infestation in the Sahel and North Africa. The economic improvement in the agricultural sector need not conceal the vulnerability of these countries to adverse weather conditions. It is in this light that efforts of African governments at forging need dynamic and functional linkages between agro-industry and agriculture need to be emphatically intensified.

Table 4: Distribution of GDP by sector of origin, Africa, 1989

(Percent)

Country	Agriculture	Industry*	Manufa-cturing	Constru-ction	Services**	Stats. Discrep.***
Algeria	9.20	44.79	9.89	13.83	32.73	−0.55
Angola	41.95	26.88	2.44	1.57	28.31	1.29
Benin	46.41	7.89	6.98	6.61	45.58	−6.57
Botswana	46.41	7.98	6.98	6.61	45.58	−6.57
Burkina Faso	42.83	11.68	10.35	4.70	43.28	−2.50
Burundi	55.10	7.63	7.29	3.28	20.31	13.68
Cameroon	24.61	39.70	19.01	6.43	50.66	−21.40
Cape Verde	13.38	5.68	5.94	13.48	65.37	2.08
Central Afr. Rep.	44.49	13.87	10.04	2.94	39.12	−0.42
Chad	37.47	10.70	9.63	1.85	47.82	2.16
Comoros	40.87	4.53	3.98	8.13	41.98	4.48
Congo	9.39	50.54	9.48	7.07	43.25	−10.24
Côte d'Ivoire	28.41	16.62	12.80	5.41	48.12	1.43
Djibouti	5.27	12.27	9.61	6.52	77.55	−1.60
Egypt	12.82	28.08	11.58	4.70	41.57	12.84
Eq. Guinea	42.62	7.69	0.44	9.20	37.26	3.23
Ethiopia	42.17	13.28	12.06	3.55	40.50	0.50
Gabon	8.14	56.53	6.28	7.57	35.12	−7.36
Gambia	22.52	10.21	9.34	5.09	87.68	−25.51
Ghana	51.95	9.19	7.27	1.67	39.10	−1.92
Guinea	45.48	17.15	3.15	3.63	32.92	0.00
Guinea−Bissau	49.71	2.65	1.06	1.00	43.02	3.63
Kenya	32.66	16.03	14.21	5.25	55.59	−9.53
Lesotho	16.43	15.77	14.41	14.63	63.04	−9.88
Liberia	22.84	25.51	11.91	5.09	51.38	−4.82
Libya	3.64	53.17	5.46	8.45	34.96	−0.23
Madagascar	40.09	16.50	14.53	8.99	51.70	−17.28
Malawi	35.06	17.57	15.08	2.65	45.45	−0.72
Mali	50.16	8.53	5.23	4.42	31.64	5.25
Mauritania	30.72	18.62	9.16	5.05	37.92	7.68
Mauritius	9.71	24.28	20.73	7.14	57.86	1.01
Morocco	21.58	27.70	20.42	5.74	55.87	−10.89
Mozambique	35.42	23.21	19.05	6.23	16.46	18.68
Namibia	10.45	38.08	4.28	2.29	48.77	0.41
Niger	43.86	15.13	3.94	3.82	34.56	2.63
Nigeria	31.13	32.03	6.62	4.41	42.18	−9.75
Reunion	6.73	11.01	9.14	4.82	77.73	−0.28

(Table 4 Cont.)

Country	Agriculture	Industry*	Manufa-cturing	Construc-tion	Services*	Stats. Discrep.***
Sao Tome and Prn.	24.50	14.86	9.93	9.84	57.33	−6.53
Seychelles	5.65	11.20	10.08	3.02	51.86	−12.54
Sierra Leone	42.47	15.19	6.51	3.02	51.86	−12.54
Somalia	65.65	4.49	3.59	2.11	19.16	8.59
South Africa Rep.	5.75	43.47	20.89	2.61	48.03	0.14
Sudan	27.34	18.34	13.55	7.81	54.91	−8.40
Swaziland	24.65	26.24	23.14	3.19	47.48	−1.57
Tanzania	51.50	9.68	7.76	2.92	40.32	−4.42
Togo	29.70	26.52	9.48	7.25	38.64	−2.11
Tunisia	12.96	29.18	17.45	4.95	53.41	−0.49
Uganda	81.45	5.48	5.44	0.63	21.35	−8.91
Zaire	31.54	30.81	2.19	4.25	32.84	0.55
Zambia	18.30	38.96	24.58	2.51	41.47	−1.25
Zimbabwe	13.10	33.78	23.56	1.36	51.44	0.32

Source: UNIDO, Statistical and Sectoral Studies Branch.
Note: Industry* includes mining, manufacturing, electricity, gas and water.
Services** include transport and communications, finance, insurance, real estate and and business services.
Stats. Discrep.*** refers to Statistical Discrepancy in Gross Domestic Product (GDP).

(c) Industrial sector growth trends

The industrial sector has also been affected by declining terms of trade; in addition to the drop in earnings from agricultural exports, revenue from other raw materials has also dropped appreciably. Prices for ferrous and non-ferrous metals, for example, decreased 20 per cent during the period 1980-1986, and the price of crude oil dropped 50 per cent. African exports to other world regions declined from $60.5 billion in 1985 to $50 billion in 1986, a drop of 14 per cent. Exports to the European Community, traditionally Africa's main trading partner, dropped by 24 per cent in 1986 alone.

With respect to manufacturing industry, MVA growth rates in African countries generally resembled those of other developing countries until the early 1980s. Although Africa's share in world MVA rose from 0.7 per cent in 1970 to 1 per cent in 1982, its industrial performance as a whole since 1982 has deteriorated relative to other developing regions.

Table 5 and figure 6 below give a comparative trend illustration of the rate of growth of MVA, of MVA per capita, and of MVA as a proportion of total GDP in the six countries of survey vis-a-vis the four countries earmarked for the second phase of the UNIDO rehabilitation programme. The average MVA per capita for African countries (about $75 in 1986) is low in comparison with other non-SSA countries, and tends to be highest among countries which are either oil-exporting (e.g., Gabon), Mauritius, Cameroon, Congo and Congo) or are located in the Maghreb or southern Africa (South Africa, Swaziland, Zimbabwe). Of the six African countries studied, only Morocco and Zambia rank higher in MVA per capita (193 and 113 US$ in 1986, and 210 and 132 US$ in 1989) than the average for Africa as a whole. A more serious implication arises from the fact that four of the five SSA countries studied had a negative rate of growth of MVA per capita. Average annual growth rates of MVA per capita for two of the six countries, Tanzania (-4.3 per cent) and Liberia (-2.4 per cent) in the period 1981-89 were considerably below the 1.6 per cent drop for SSA as a whole. The declining rates of growth (-1.3 per cent in 1981-86 and -0 9 per cent in 1981-89 for Angola, -2.4 per cent for Liberia, -4.1 and 0.1 per cent for Zambia, and -7.3 and -4.3 per cent for Tanzania) help to explain the selection of these countries for industrial rehabilitation.

Table 5: Rate of growth of manufacturing value added (MVA*), Africa

Country	MVA (in US$ millions) 1986	1989	MVA per capita 1986	1989	MVA/GDP 1986	1989	Average annual growth rate of MVA per capita 1981–1989
Algeria	5,322	5,596	238	230	0.096	0.099	2.77
Angola	92	110	10	11	0.022	0.024	−0.88
Benin	82	86	20	19	0.068	0.070	−0.28
Botswana	66	83	59	66	0.037	0.036	0.64
Burkina Faso	171	165	21	19	0.115	0.104	−1.49
Burundi	91	99	19	19	0.072	0.073	0.10
Cameroon	1,813	1,437	175	126	0.199	0.190	2.41
Cape Verde	11	15	34	40	0.057	0.059	6.87
Central Afr. Rep.	82	96	30	32	0.092	0.100	−0.34
Chad	72	91	14	16	0.085	0.096	−0.91
Comoros	7	8	14	14	0.039	0.040	1.23
Congo	252	239	126	109	0.095	0.095	1.66
Côte d'Ivoire	1,528	1,348	148	117	0.140	0.130	−1.77
Djibouti	36	37	99	92	0.100	0.096	−2.26
Egypt	4,767	4,998	100	98	0.124	0.116	4.40
Eq. Guinea	0.2	0.2	1	1	0.049	0.044	−10.45
Ethiopia	556	607	13	13	0.124	0.121	1.02
Gabon	247	188	241	166	0.069	0.063	−9.91
Gambia	29	33	34	40	0.101	0.009	6.83
Ghana	335	423	25	29	0.068	0.073	3.70
Guinea	80	64	16	12	0.042	0.032	−1.23
Guinea–Bissau	2	2	3	2	0.013	0.011	−5.07
Kenya	1,196	1,418	57	61	0.137	0.142	1.20
Lesotho	48	70	31	41	0.121	0.144	10.21
Liberia	106	112	47	45	0.109	0.119	−2.36
Libya	1,465	1,630	372	372	0.050	0.055	6.64
Madagascar	470	493	42	42	0.148	0.145	−0.88
Malawi	215	234	28	28	0.123	0.151	−1.44
Mali	111	115	14	13	0.060	0.052	2.51
Mauritania	78	90	43	46	0.086	0.092	3.20
Mauritius	310	394	301	369	0.200	0.210	10.12
Morocco	4,371	5,141	193	210	0.195	0.191	1.87
Mozambique	343	417	24	27	0.177	0.191	−10.36
Namibia	84	87	54	50	0.044	0.043	−2.41
Niger	106	101	16	14	0.041	0.040	−3.21
Nigeria	4,517	5,454	48	52	0.057	0.066	−1.51

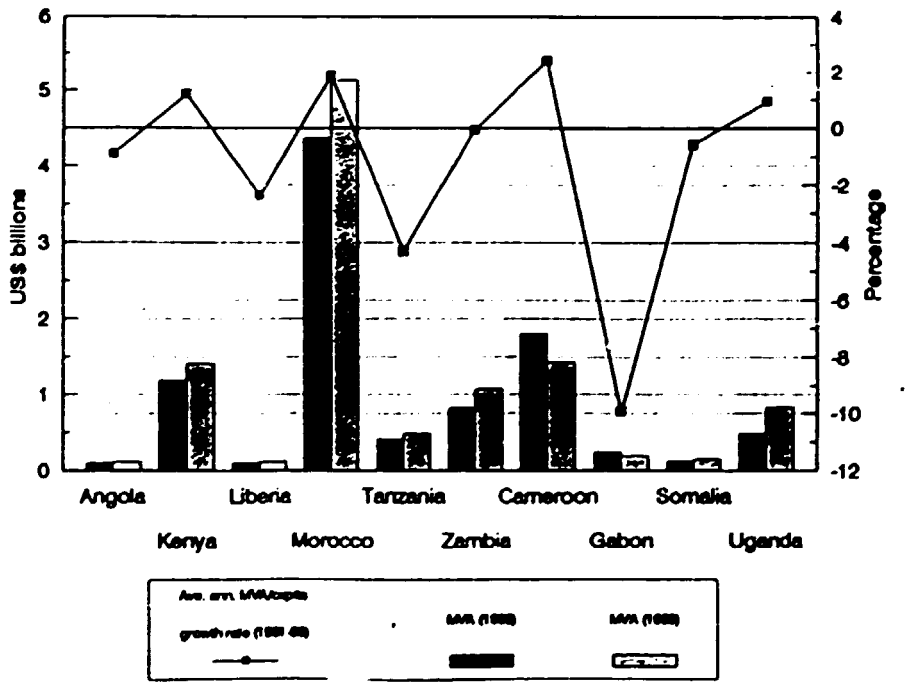
(Table 5 cont.)

Country	MVA (in US$ millions) 1986	1989	MVA per capita 1986	1989	MVA/GDP 1986	1989	Average annual growth rate of MVA per capita 1981–1989
Rwanda	249	252	39	36	0.175	0.181	0.17
Sao Tome and Prn.	4	4	32	32	0.101	0.100	−1.04
Senegal	602	684	92	98	0.167	0.178	2.17
Seychelles	14	18	203	258	0.067	0.101	6.13
Sierra Leone	76	76	20	19	0.065	0.065	−6.22
Somalia	121	146	18	20	0.033	0.036	−0.56
South Africa	17,498	19,115	542	554	0.208	0.209	−2.52
Sudan	989	1,111	44	45	0.114	0.134	0.96
Swaziland	163	185	238	243	0.236	0.231	1.35
Tanzania	417	482	18	18	0.076	0.078	−4.29
Togo	99	119	32	35	0.090	0.095	−1.03
Tunisia	1,748	2,039	235	255	0.166	0.175	3.07
Uganda	490	833	30	46	0.037	0.054	0.95
Zaire	173	155	6	5	0.025	0.022	−3.68
Zambia	826	1,076	113	132	0.206	0.246	−0.06
Zimbabwe	1,549	1,653	181	186	0.230	0.235	−0.66

Source: UNIDO, Statistical and Sectoral Studies Branch.
Note: MVA* in constant 1980 US dollars.

Figure 6: MVA, MVA per capita growth rates,

1981-1989



(d) Sector composition of GDP

The changes in the agricultural and industrial sectors which are discussed above should be assessed in light of the generally expected pattern of development of MVA and GDP. In the usual pattern, the share of MVA to GDP rises steadily during the industrialization phase. This trend may continue to the point where MVA accounts for 40-60 per cent of GDP, followed in later years by a drastic turnaround while the country's industrial structure changes in relative terms to services and other non-industry sectors, while output per capita continues to rise. However, only about half of the African countries listed in table 5 show an appreciable increase over time in the percentage share of MVA in total GDP, and in no case did the percentage share of MVA rise above 25 per cent in 1986, and in only four cases (Mauritius, South Africa, Swaziland and Zimbabwe) did it exceed 20 per cent. Zambia, with 20.6 per cent, was the highest among the six countries studied.

Increases in MVA, in MVA per capita, and in the ratio of MVA to GDP are widely interpreted as indicators of industrialization, which is generally presumed to be accompanied by other structural changes, such as urbanization and infrastructural development, as well as the growth of an internal market for manufactured goods. As per capita income increases, there is not only increased local demand, but also a shift in the composition of demand, from food to durable consumer goods. However, the declining levels of MVA per capita and the declining ratios of MVA to GDP which are more typical of Africa in the 1980s point to a slow decline of the manufacturing sector in Africa since the beginning of the decade. These MVA data show an overall low level of industrialization in sub-Saharan Africa. There is even evidence that some middle income countries have experienced a decline in the share of manufacturing in GDP.

(e) Wages and employment

Whereas total employment in Africa was estimated to have increased by 2 per cent per year in the 1970s, it declined by about 16 per cent between 1980 and 1987. Furthermore, the ECA estimates that 1.5 million permanent jobs per year were lost between 1985 and 1987 as a result of the stagnation in investment expenditures. Assuming a labour force growth rate of 2.7 per cent per year, an estimated 22 million persons were unemployed in 1985, which amounted to 40 per cent of the labour force in sub-Saharan Africa. This unfortunate situation held especially for persons under 25 years of age, whose share of unemployment rose to 75 per cent by 1987 and the close of the decade.

Real wages in African countries fell by an average of 19 per cent a year between 1980 and 1986. Although this retrenchment may be seen as necessary to contain the overgrown public sector in some countries, there is no co-ordinated policy which would reduce the discrepancy between minimum wages, food prices or any kind of subsidies for consumer goods or basic foods. Not only does real income and domestic demand shrink due to declining real wages, but total employment as the source of income decreases as well.

(f) Social development trends

The retrenchment of government expenditures has led to severe and often disproportionate budget cuts in terms of social spending such as education and health. A steady decrease of the share of health and education in government expenditure from 25.2 per cent in 1986 to an estimated 19 per cent in 1989 diminishes the future prospects of economic and social recovery.

Social conditions in SSA countries in particular are particularly troubling. According to the ECA economic report, poverty affects 50 to 75 per cent of the population in both rural and urban African areas. The region's per capita income declined at an average rate of 3.4 per cent between 1980 and 1986. Although there was a meager 0.7 per cent rise in GDP in 1987, and an estimated 2.3 per cent growth rate for 1988, this is far from sufficient to match the population's average annual growth rate of 3.1 per cent. Increasing inflation rates accentuate the problems of insufficient supply, and imported consumer goods are beyond the reach of most Africans.

The seriously deteriorating social conditions and their impact on human resources and economic development, especially during the 1980s call for a fundamental rethinking regarding the challenge of

planning Africa's development. Most reports and surveys on the economic and social situation in Africa call attention to the neglect of the human dimension in structural adjustment programmes advocated by the IMF and World Bank, although some observers detect hints that these two institutions have recognized the painful social results of their favoured policies and the need to modify the programmes' package so as to make it flexible to suite meet the needs of Africa's socio-economic development.

3.2 Constraints at the international level

Constraints at the international and regional level are considered in terms of terms of trade; trade patterns; capital flows; and debt accumulation.

(a) Terms of trade

The world economic crisis of the mid-1970s, characterized by a steep rise in oil prices and a severe fall in the prices of primary export products, brutally exposed the weak and vulnerable structure of African manufacturing industries. Although most African countries are heavily dependent on raw material exports, export earnings show few signs of substantial growth as prices remain depressed. Meanwhile, prices of imports have continued to rise, causing Africa's terms of trade to fall disastrously during the 1980s; whereas the terms of trade index rose from 100 in 1980 (the base year) to 109 in 1981, it fell to 60 in 1987. A further deterioration of 4.5 per cent was recorded in 1988.

Average crude oil prices in the spot market were $28 per barrel in 1984 and fell to $12.5 per barrel in the final quarter of 1988. Consequently, African oil exporting countries, which account for over 60 per cent of SSA's GDP, suffered severe losses in export revenue. Since oil accounts for almost their entire foreign exchange revenues, these countries became forced to limit their expenditures for vital imports and infrastructure investment. Shrinking demand and cuts in public expenditure not only affected their own economies, but threw a shadow over the economic prospects of the entire region.

Although some metal prices have risen in the 1980s, not all African metal exporters managed to profit from this increase. Copper exploitation in Zaire and Zambia was limited due to constraints on the supply side, and the producers failed to reap the benefits of the price boom in 1987-89. The mining sector still suffered from severe losses in recent years, and necessary spare parts could not be imported to match the newly swelling demand for copper.

(b) Trade patterns

African economies continue to depend on the export of a narrow range of primary commodities, accounting for 85.5 per cent of total exports in 1986. Oil exports accounted for US $10.5 billion or 29 per cent of total exports in 1987 for the sub-Saharan countries. The contribution of Nigeria, the major oil-exporting country in the sub-Saharan Africa region amounted to 67 per cent of all crude petroleum exports in 1987. The share of manufactures in total exports was 14.5 per cent in 1986, the last year for which data is reported. There seems little or no change in the export structure of SSA countries.

In the first half of the 1980s, trade in nominal terms fell by about 40 per cent, on the export as well as on the import side. There was a slight recovery in 1983, but the level of trade has since declined. This is a particularly unfavourable development, since the SSA countries have favourable access to the markets of industrialized countries; they face virtually no tariffs to the EC market because of the Lomé Convention, which affects about 60 per cent of their total exports. In terms of export competitiveness, most African currencies are overvalued when compared with competitors among developing countries. With the real effective exchange rate remaining at a high level, there are limited production incentives in the SSA region, causing non-oil export volume to stagnate and the market share of primary commodities to shrink in the last decade.

Export revenues relate closely to world market prices, indicating the still high dependency on export of raw materials to the developed industrial countries. Rather than shifting production and export to local or

regional markets, there has been a clear decline in intra-African trade, which dropped from 6 per cent of developing Africa's total exports in 1986 to only 4 per cent in 1988. This shows that, despite the efforts of integration and co-operation among African countries, trade and other barriers still remain high. Low domestic demand, small market size, the lack of financing facilities and an inadequate transport and communications infrastructure are the reasons for very the modest level of intra-African trade.

The same reasons hold for the lack of changes in the product and trade structure. Export efforts are still mainly conducted to earn foreign exchange, a strategy which tends to separate industrial sectors. The exploitation of raw materials and the export of primary unprocessed goods does not reinforce linkages among industrial subsectors. This holds back the development of intra-regional markets, which would be a basis for a common scheme of trade liberalization and tariff agreements along the lines of The Lagos Plan of Action drafted by the OAU in 1980.

(c) Capital flows

The unfavourable external economic environment, notably the slump of commodity prices in world markets, coupled with a large and mounting external debt, have had disastrous effects on the balance of payments of sub-Saharan Africa. In addition to the fall in commodity prices, the introduction of synthetic and other substitute materials has depressed the demand for Africa's staple products, traditionally its main source of foreign exchange.

Moreover, capital flows have been drying up. The resulting shortage of foreign exchange has prevented the import of other raw materials and essential equipment and spare parts for industry. The lack of such imports has already led to widespread breakdowns in machinery and low capacity utilization rates

(d) Debt accumulation

At the same time, debt has accumulated, partly because of the need to compensate for declining export receipts. Total external debt of SSA countries increased from US $45.5 billion in 1982 to approximately US $140 billion in 1988. The sub-Saharan long term debt service ratio reached an estimated 20.5 per cent in 1988: in some countries the ratio regularly exceeds 30 per cent of annual export earnings.

The current debt crisis of SSA countries should be seen within the context of the accelerated progress toward development in the late 1970s, which led to unrealistic expectations and overextended borrowing. Investments were made in capacity expansion and oversized industrial projects, as well as consumer goods expenditures to an extent which now seems mistaken. Overcapacity and the lack of supply due to foreign exchange restraints made these projects infeasible. The total debt in African countries rose by an average of 8 per cent per year, from $174.4 billion in 1985 to an estimated $230 billion in 1988. The latter figure represented 81.1 per cent of total GDP and accounted for about 314.2 per cent of total exports of goods and services.

Rescheduling of debt service payments is necessary in extreme cases because the obligations cannot be met from export earnings and/or budgeting resources. Once SSA country, Zaire, rescheduled its bilateral debts with the Paris Club of sovereign lenders no fewer than nine times between 1976 and 1987. Such countries suffer from a double squeeze, rising debt service payments and collapsing export commodity prices which both diminish foreign exchange earnings. Postponement of debt service payments provides only temporary relief, although the Toronto summit of the seven industrialized Western nations in June 1988 has spawned some tentative debt relief programmes, which combine outright cancellation, lower interest rates and very long rescheduling periods. On the other hand, programmes of financial restructuring designed for an individual country omit the fact that the whole of sub-Saharan Africa is a depressed economic area. Although there might be no recorded economic linkages between countries, the practices of barter, contraband and parallel markets become an impoverishing drain of goods, capital and services between economically unbalanced regions.

3.3 Institutional and policy considerations

The underlying causes of the present situation in Africa are both macro-economic and micro-economic in nature, as described in the previous section. Macro-economic policies and specific pricing, trade and industrial policies have in many cases distorted product markets and production conditions.

(a) Inflation rates

The rate of inflation has almost doubled since 1986, rising from 12.5 per cent in 1986 to 21.3 per cent in 1988. The least developed countries in sub-Saharan Africa suffered the most from inflation, with almost double the regional average. Explanations can be found on the supply as well as on the demand side. Slow output growth and supply bottlenecks at various stages of production in manufacturing and industry are the main reasons on the supply side. The nominal increase of budget deficits, the cuts in subsidies and the relaxation of price controls are the main causes of rising consumer prices.

(b) Capital formation

The share of real investment of GDP for the SSA countries is half the share of other developing countries. It amounted to 12.2 per cent of GDP in 1985, whereas the other developing countries reached 24.6 per cent. Although the share of gross domestic savings and consumption of GDP has barely changed since 1985, the share of foreign savings represents more than 50 per cent of total investment. The fact that growth rates of real investment were a negative 2.9 per cent in 1986 and an estimated 4.2 per cent in 1987 indicates a clear negative contraction of industry, leading to adverse developments in economic growth.

Capital formation increased by 1.8 per cent in 1988, after negative growth in 1987 of 5.3 per cent. However, this must be set in relation to the declining share of capital formation to GDP, dropping from 21 per cent at the beginning of the decade to a meagre 15.6 per cent share. This trend is particularly alarming, in that it reflects a massive contraction in infrastructural investments. The retrenchment of these vital investments will produce a multiple setback of the rural areas. Not only will the development of the countryside come to a halt, but recovery of urban industry will be set back by massive migration to the centres.

(c) Import restrictions

Being highly dependent on imports (raw materials, as well as components and equipment), African industry has been seriously affected by the need to reduce imports as a result of balance of payments crises in individual countries.

(d) Capacity utilization

In other cases, especially in the food processing industry, expected raw material supplies to manufacturing proved to be insufficient, irregular or unobtainable. The lack of growth MVA in most SSA countries in 1981-1986 can largely be attributed to the fact that Africa has the lowest average rates of capacity utilization. Utilization rates well below 50 per cent are common. In the mid-1980s, for example, the rate was 36 per cent in Liberia, 25 per cent in Tanzania, and 30 to 50 per cent in Kenya and Zambia. Much of the installed industrial capacity is idle or underutilized as a result of poor investment decisions, declining real incomes, bad management, and the shortage of foreign exchange for the purchase of raw materials and spare parts.

(e) Project investment strategies

At the micro-economic level, many investments have been made on the basis of project concepts that were technologically too complex to be sustained over the long term without significant external assistance. In many projects, insufficient support in the form of training and other essential auxiliary inputs tended to hold back productivity. During the early stages of industrialization, projects were often based on unrealistic

assumptions of domestic market demand growth, availability of local raw materials, export prospects and the development of a supportive national infrastructure. Therefore, many infant industries have tended to remain weak and financially vulnerable.

3.4 Focus on countries selected for study

(a) Countries selected

The six countries selected for study have proven to be representative of Africa as a whole; a look at Tables 3, 4 and 5 show that these countries are well distributed among the African countries in terms of indicators of GDP and MVA.

- Angola ranked 18th in terms of GDP in 1987, with an even lower GDP per capita. Its manufacturing subsector was notably weak: 35th in MVA and 43rd in terms of MVA per capita in 1986, and 49th in terms of MVA share of GDP.

- Kenya occupied the 10th place in terms of GDP in 1987, with a relatively high average annual rate of growth of GDP (the 7th, at 3.99 per cent) in the period 1980-89. Its manufacturing sub-sector is quite strong (15th in terms of terms MVA in 1987) and average annual growth rate of MVA per capita in the period 1981-89 quite significant (18th rank).

- Liberia had the lowest GDP in 1987 of the six countries surveyed, but ranked in the middle in terms of MVA per capita (20th in 1986 at $47, and 24th in 1989 at $45) and MVA share of GDP (18th, at 11.91 per cent).

- Morocco ranked 5th in terms of GDP in 1986 and 1987, and also ranked quite high among African countries in terms of MVA per capita (8th, at $193) and MVA share of GDP (6th, at 20.42 per cent).

- Tanzania was to be found among the upper third in terms of size of GDP, but ranked, along with Angola, among the lowest third in terms of MVA per capita ($18 in 1986 and 1989) and MVA share of GDP (7.76 per cent).

- Zambia had a GDP comparable in size to Tanzania and Angola in 1986, but ranked considerably higher in terms of MVA per capita (11th in 1986, at $181 and 10th in 1989, at $186) and MVA share of GDP (1st, at 24.6 per cent).

In summary, the six countries which have been selected include one country with a relatively high GDP (Morocco), three middle-income countries (Kenya, Angola and Zambia), and two low-income countries (Liberia and Tanzania). In terms of degree of industrialization (i.e., share of MVA in GDP), three countries (Zambia, Morocco and Kenya) have a relatively high share by African standards, another (Liberia) rises to the middle ranks, and the other two (Tanzania and Angola) are found in the lower third.

The countries selected for study were roughly equal to the average in terms of GDP size, but larger than average in terms of MVA. The average GDP in 1986 and 1989 for the six countries studied were $6.7 and $8.5 billion, which was slightly lower than for the full set of 53 countries ($7 billion), whereas their average MVA ($1.2 billion) in 1986 was more than 35 per cent greater than the average MVA for all 53 countries.

Rank order comparisons of this sort only begin to suggest the diversity of problems and opportunities which are to be found within each national context. Firms in each of these five countries operate in a significantly different political and economic context, as will be indicated briefly in the following background summaries for each of the countries concerned.

(b) Angola

By the mid-1980s, Angola's industrial output had fallen to less than half of its output in the early 1970s, as a result of long years of independence struggles, civil war and external intervention, as well as a critical shortage of skilled and professional workers at all levels of the economy and administration. These continue to be major obstacles to industrial development in Angola, although the imminent prospect of Namibian independence and negotiating moves towards an end to the Angolan civil war may usher in a new era of economic and industrial progress, based upon Angola's abundant natural resources and favourable geographical location.

While Angola's manufacturing enterprises have traditionally processed domestic resources, they have remained dependent on imported intermediate goods, machinery and spare parts. The disruption of war has cut off most industries from their raw material base, and the serious drain of financial resources has limited the importation of machinery and spare parts. Additionally, the food processing branch suffers particularly from a shortage of lower and intermediate-level technicians and management (many of whom were colonial settlers and left on independence), as well as from agricultural pricing policies which have also contributed to the shortage of inputs.

In an effort to revive its faltering economy, the Angolan Government introduced a package of economic reform measures (Saneamento Economico e Financeiro - SEF) in January 1988. These measures include the privatization of much of the retail and wholesale sector; increased financial autonomy and responsibility for state enterprises; regional decentralization; the introduction of a foreign exchange retention scheme as an incentive for non-petroleum export industries; liberalization of its previously rigid price control system; improvements in monetary policy; and reform of the investment law. Whereas the Government of Angola had been committed to a centrally planned economy in the past, it now looks to its new decentralization initiatives to help revive the manufacturing sector. However, the continuity instability in Angola was such in February 1990 that not one of these measures had yet been implemented.

With regard to the domestic environment in which Angolan manufacturing operates, the UNIDO mission concluded that:

- short-term economic stabilization measures should be harmonized with overall development objectives in order to create the right long-term environment for industrial regeneration;
- recovery and development of the agricultural sector is a prerequisite for industrial development;
- a large-scale programme of public works is needed to improve the physical infrastructure, and;
- general education and technical training deserve high priority in order to increase the availability of qualified personnel.

(c) Kenya

Compared to most SSA countries, Kenya's economic performance, despite significant fluctuations has been generally impressive. Manufacturing is a leading sector of the economy, accounting for about 12 and 14 per cent of GDP in the mid- and late-1980s. Recent years have experienced, however a experienced a significant decline in manufacturing. Available data suggests annual gross investment declined since 1978. In 1985, gross investment was 40 per cent of its 1978 level in real terms. The reasons for the stymied manufacturing growth in recent years were the variable economic conditions and uncertainties in the business environment.

Stagnation in Kenya's manufacturing is reflected in the fact that there has been very little structural change in the sector and the whole economy as a whole.

Kenya's manufacturing sector is basically oriented to meet domestic needs; it has been established to

cater for the domestic market through a policy of import substitution. Thus, high levels of protection were provided for key manufacturing sub-sectors such as metal products, wood products, paper, non-electrical machinery and fertilizers.

Agro-industry is the most important sub-sector. It comprises the food, beverage, leather, textile, wood and paper products. Food, beverage and tobacco products alone accounted for about 44 per cent of MVA in 1987. Other branches of agro-industry (textiles and garments, leather products, wood and paper products) accounted for, on the average, another 12 per cent of MVA. The remaining 44 per cent was accounted for by a relatively wide range of other branches such as petroleum, rubber, plastics, chemical, metal, cement, glass and ceramic products[4]. On the whole, the branches producing intermediate products account for an insignificant share of MVA in comparison to the consumer goods branches (largely food, beverage and tobacco products).

Surveys[5] of Kenya's manufacturing sector found many firms producing at less than optimal capacity - 50 per cent or less. Under-utilization of industrial production facilities is one of the major factors found to hinder the renewal of economic growth in Kenya. This and other problems have prevented manufacturing from not generating a dynamic growth process and from satisfying the domestic and export market demands.

The Government of Kenya has stressed the need to re-orientate the country's productive capacity towards export production and to raise productive capacity to stimulate growth. In addition, it has emphasize the need to raise efficiency in manufacturing, particularly in the parastatal sector.

The Government is not only aware of the problems of manufacturing industry, but also the need for industrial rehabilitation and regeneration. In its efforts to create enabling environment for industrial regeneration and economic growth, the Government with the support of the World Bank adopted structural policy measures. These were policies meant to stifle the influence of the state in the economy and correct the negative effects of hitherto import substitution policies. The negative effects include: the slow down of overall growth; the sluggish performance of exports; the rapid growth of foreign public debt and service payments strangling needed imports and hence threatening future growth, and; the persistent budget deficit and the squeezing of the private sector of needed capital.

A series of measures have been taken recently to implement Government policies. They include the following:

- streamlining of tax system to include reduction in corporate taxes from 45 to 40 per cent, the value added tax (VAT) was introduced in 1990 to replace the previous sales tax;
- modification of import licensing system to liberalize importation;
- streamlining and simplification of tariff system, and;
- modification of investment regulation and system to attract significant inflow of private foreign capital (FDI).

Major industrial policy changes were introduced to provide incentives to increase exports of manufactured products. Thus, a package of policy include measures to: simplify tariff and import-licensing systems to liberalize imports (e.g., less quantitative restrictions on imports: export compensation schemes for exporters of manufactures; exempt manufacturers from sales tax); devalue the national currency and create a foreign-exchange-rate regime; regulate and ease procedures for establishment of business ventures and ease

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[4]. Central Bureau of Statistics, Statistical Abstract 1989, Nairobi, p. 126.

[5]. UNIDO, Kenya: Sustaining Industrial Growth through Restructuring and Integration, Regional and Country Studies Branch, UNIDO, PPD.85, 22 June 1988; World Bank, Industrial Sector Policies for Investment and Export Growth, World Bank Report No. 6711-KE, vol. 1, 22 June 1988, pp. 9-11.

repatriation of business profits; reduce the number of products subject to price control and; assist potential exporters to travel to promote their products and support the informal manufacturing sector. Through its diverse policy changes including privatization of many parastatals, the Government is on the path of creating an enabling environment for business initiative, and, hence, rehabilitation.

(d) Liberia

Throughout the 1980s, the Liberian economy has suffered severely from mismanagement and a decline in raw material earnings. The growing differential between the official and parallel market rates for the two legal currencies (the U.S dollar and the Liberian dollar) has exacerbated problems.

The Government of Liberia responded to the economic crisis by launching the Economic Recovery Programme and The Green Revolution in 1986 and by agreeing to a team of US experts (the OPEX team) participating in the management of the public sector. The OPEX team arrived on a two year contract in January 1988, but left after only one year. It had limited success in improving Government revenue collection and the functioning of certain aspects of the industrial infrastructure, but was not in a position to solve the Government's fiscal problems.

The main objectives of the Economic Recovery Programme are to improve management in the public sector and to implement measures leading to renewed growth. This can be achieved, inter alia, by improving the productivity of Liberian farmers and by strengthening industrial production based on the wide range of natural resources.

The budget crisis is also being seriously addressed by the Government, with strong emphasis on containing expenditures. The central government deficit was halved in 1987/88 (July-June), although there remains much scope to boast revenue collection.

Liberia's manufacturing sector is small, its share in GDP having decreased from 10 per cent in 1979 to approximately 7 per cent in 1986. The most important branches are food and beverage products, accounting for over 50 per cent of manufacturing output in 1985. There is considerable potential for wood processing, and recent Government measures are designed to stimulate this activity.

General observations and recommendations that also apply to other countries in the UNIDO study include the need for improvements in physical infrastructure and training, less administrative interference in public enterprises, greater reliance on domestic raw materials, and the introduction of allocation systems for foreign exchange to purchase essential parts and inputs.

Recommendations specific to Liberia include:

- formulation of a coherent policy framework, not only for the manufacturing sector, but for the economy in general, and;

- strict adherence to the new Investment Code, so as to increase the confidence of potential investors in the Liberian economy.

(e) Morocco

High phosphate earnings in the early and mid-1970s had encouraged the Government to initiate large-scale public works programmes, partly financed by external borrowing. A number of capital-intensive manufacturing projects were initiated, and a highly protective environment was created for them.

However, the collapse of phosphate prices in the late 1970s brought about much more difficult conditions, and the Government had to borrow increasingly just to complete the investment programmes which were already initiated. Some attempts were made after 1978 to stabilize the economy, but another

series of public investment programmes was initiated in 1981. Military action in the Western Sahara was an additional drain on public spending.

Between 1975 and 1983 the public debt rose more than sixfold, reaching $11.2 billion in 1983 (84 per cent of current GDP and 290 per cent of current exports). The current account deficit grew to 13.3 per cent of GDP in 1982. Meanwhile, international interest rates had been rising rapidly, and the amount of credit available on concessionary terms had dwindled. Morocco found it increasingly difficult to service its debt burden, the more so as prolonged droughts in the early 1980s significantly reduced its agricultural performance.

By mid-1983, Morocco had virtually no foreign exchange reserves left, and had to reschedule its debts. At the same time, it initiated an economic restructuring programme with IMF and World Bank assistance. This programme had two major objectives:

- a rapid stabilization of the economy by a reduction of aggregate demand and of the Government deficit, and;

- change in the structure of key economic and social sectors to increase the productivity and competitiveness of Moroccan agriculture and industry.

(f) Tanzania

Tanzania's current economic crisis began to surface in the 1970s, when the growth rate of its key agricultural and industrial sectors declined 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 an annual rate of 1.01 per cent, while the population was increasing at an annual rate of 3.3 per cent. The poor performance of the agricultural sector was caused by drought in some parts of the country, low and declining producer prices, inadequate research and extension services, and poor marketing channels. These problems were exacerbated by drastic institutional changes (e.g. villagization and the replacement of co-operatives by crop authorities), and by the inadequate allocation of resources to agriculture.

This low rate of agricultural growth led to stagnation in the volume of exports, as 80 per cent of all exports originate in this sector. Coupled with the declining terms of trade for the major export crops, it also resulted in a decline in the value of exports. The drop in agricultural export revenue precipitated a shortage of foreign exchange to import essential inputs, equipment and spares for all other sectors; the industrial sector, as well as transport, communications and other physical infrastructure were soon operating well below capacity due to the lack of necessary imported inputs.

The Tanzanian economy was subjected to further strain by the collapse of the East African Community in 1977, by regional conflict in 1978/79, and by sharp increases in the price of oil in the 1970s, as well as by the generally import-intensive investments which it made during the 1970s. These developments, which exerted considerable pressure on the balance of payments to the extent that they required substantial 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 inadequate maintenance.

Attention in the 1980s turned to a search for ways of rehabilitating the run-down capital stock, especially in industry, physical infrastructure and agriculture. Rehabilitation and better utilization of existing capacities were endorsed by the government as a more efficient means, than to reliance on new investment 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 better 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 cancelled a number of projects planned for implementation, except where new projects were seen as essential to eliminate bottlenecks in production. The emphasis on the rehabilitation of existing productive capacity was further stressed in the Economic Recovery Programme (1986-1989), and the Government pledged to reduce state intervention in industry and boost incentives for farmers.

(g) Zambia

Zambia's dependence on copper mining is the key characteristic of the economy, and a major cause of the country's present economic difficulties. Low copper prices, combined with a concentration of resources on the needs of the urban population, have forced the country to borrow heavily. Copper prices remained below their 1974 peak even in nominal terms until the second half of 1987. The urgency of rehabilitation is highlighted by current estimates that copper reserves will be largely exhausted by the year 2000. This has resulted in stagnation in the highly import-dependent manufacturing sector. The 1987 Interim National Development Plan (INDP) represents an attempt to diversify away from copper and to find new ways to generate and conserve foreign exchange, by emphasizing domestic resource-based industries that produce both basic consumer goods and non-traditional exports. Performance in response to the INDP was, in certain key aspects, indifferent, and changes, such as exchange rate policy, have been made.

Most of Zambia's larger industries are Government-owned, and political interference has been common. The present reform measures are viewed as serious attempts to liberalize and stabilize the economy, and to provide a sound basis for rehabilitation programmes.

General recommendations for improvement include reduction in Government interference in matters affecting manufacturing enterprises.

Recommendations specific to Zambia include the following:

- the strengthening of government's capacity to formulate and implement appropriate measures and to monitor industrial development projects, and;

- the strengthening of the advisory capacity with regard to rehabilitation and new investments of the Industrial Development Corporation (INDECO), an institution controlling the larger part of the country's industrial enterprises.

PART 2

CHAPTER 4

MAJOR FINDINGS OF REHABILITATION PROGRAMME AT INTERNATIONAL/REGIONAL, COUNTRY AND SECTORAL/SUB- SECTORAL LEVELS

4.1 Findings at the international and regional level

(a) Constraints

The major findings of the UNIDO special reports at the regional and sub-regional level are treated in this section, while findings at the country, sector and enterprise level are discussed in the remaining three sections of this chapter. For each level, the most significant constraints, institutions, policies, performance measures, and objectives are briefly outlined below.

There are many interrelated constraints at the international level which hinder the development of industry in the six countries and in Africa in general. Among the major macro-economic considerations are (a) declining terms of trade; (b) exchange rate fluctuations; (c) rising interest rates; (d) increasing debt service obligations; (e) decreasing levels of external capital investment; and (f) decreasing levels of development assistance.

The declining terms of trade for many African countries including the countries of survey has caused great difficulties. The fall in copper prices after 1974, for example, severely undercut Zambia's economy, which has not even fully benefitted from the recent price improvements, due to infrastructural bottlenecks and capacity limitations. The generally rising petroleum prices have hurt most African countries, and sudden price variations have also hindered the development of petroleum-exporting countries such as Angola, which was confronted with a balance of payments crisis in 1986, due to a sharp fall in crude oil exports. The terms of trade and foreign exchange earnings in Kenya in the 1980s fluctuated widely, due to wide variations in the international prices for coffee and tea. When the export earnings fell, the Kenya authorities tightened non-tariff import controls.

Exchange rate fluctuations affect not only trade volumes but also the size of each country's debt burdens. A rising dollar, for example, may increase export revenues of primary commodities priced in dollars, but also adds to the burden of repaying foreign debt obligations which are denominated in dollars. Some countries are faced with powerful adverse effects from exchange rate movements of more than one foreign currency. Morocco, for example, is paid predominantly in dollars for its exports, but imports substantially from France. In the mid-1980s the strength of the dollar in relation to other Western currencies reduced the cost of its imports although the reverse has since been the case.

The higher interest rates of recent years have added to the problems in the mid-1980s of high dollar exchange rates and have played havoc with developing countries' efforts to service their debts. This has directly affected African manufacturing by raising the already high cost of new foreign credits. In the period 1983/4 - 1987, the Liberian trade surplus rose from US$ 20.8 million to US$ 56.3 million. But, the current account deficit grew from US$ 26.5 million to US$ 47.7 million, due largely to increasing interest rates.

The extraordinarily rapid increase in debt service obligations for many countries have exacerbated their financial difficulties, leading often to rescheduling agreements which have served only to delay repayment burdens. The huge debt service burden has been the main factor responsible to for Liberia's overall balance of payment deficits in the period 1983/4 and 1987.

Decreasing capital flows from developed countries have been the rule in recent years, with resulting shortages in foreign exchange for investment or other purposes. For most African countries, private capital flows have become negative. Since 1983, for instance, the inflow of foreign finance into Tanzania stagnated and declined, partly because the government had not yet concluded and agreement with the IMF and

payments arreas were accumulated rather rapidly. Following the signing of the 1986 agreement with the IMF, however, the inflow of financial credit for the rehabiliatation of the economy eased considerably.

Levels of donor assistance have been increasing for such countries as Angola and Tanzania, but have stabilized for Zambia and actually decreased for Liberia. This must be placed in context, however, in view of declining private investment and increasing debt service obligations, factors which outweigh by far the level of donor assistance.

(b) Institutions

The economic downturn in 1980s caused by: the balance of payment problems; sharp drops in both public and private investment; deterioration in the terms of trade, leading to the severe foreign exchange shortages and the debt burden; inappropriate national economic policies, and ; political strife, for example, in Angola created greater need for economic co-operation among African countries. Efforts at accelerating economic integration in order to be able to compete as an economic entity and not as individual states in increasingly competitive financial and economic environment. Intra-regional trade co-operation becomes more effective only within the framework of common industrial policies. Where governmental resources for promotion of industry is limited, inter-regional co-operation enables inflow of financial technical assistance

Institutions considered include those which have global concerns (e.g. United Nations), as well as those with a concern for the Africa region (e.g. Organization for African Unity, Economic Commission for Africa), for a specific set of African and other member states (e.g. the Lome Convention), or for a relevant sub-regional grouping (e.g. SADCC and PTA East and Southern Africa). Membership of the six countries surveyed is shown in table 6.

Table 6: Sub-regional and international organizations: Membership of countries surveyed

Country	1	2	3	4	5	6	7	8	9	10
Angola				X	X	X	X	X	X	X
Kenya				X		X	X	X	X	X
Liberia	X	X				X	X	X	X	X
Tanzania				X	X	X	X	X	X	X
Morocco			X			X		X	X	X
Zambia				X	X	X	X	X	X	X

Note: 1 Mano River Union; 2 Economic Community of West African (ECOWAS) States; 3 League of Arab States (LAS); 4 Preferential Trade Area for Eastern and Southern African (PTA) states; 5 South African Development Co-ordination Conference (SADCC) states; 6 Organization of African Unity (OAU) states; 7 African, Caribbean and Pacific group of States (ACP); 9 United Nations Industrial Development Organization (UNIDO) member states; 10 Economic Commission of Africa (ECA) member countries.

United Nations agencies, including regional bodies such as the Economic Commission for Africa and specialized bodies such as UNIDO/UNDP, have shown a particular interest in African economic development, including both agricultural and industrial aspects (e.g. the Second Industrial Development Decade for Africa-IDDA II), in the context of persistent current account imbalances and rising debt levels.

The Organization for African Unity has played a key role in the formulation of African development strategies, having taken the lead role, for example, in the declaration of IDDA. It has been particularly supportive in the development of sub-regional institutions such as SADCC and ECOWAS.

The Lomé Convention is a trade and aid agreement between the European Community and 66 African, Caribbean and Pacific states, including 45 African states, which guarantees duty free entry to the EC for certain commodities. The Lomé Convention enables the European Investment Bank to play active role in the supply of investment funds to agro-industry and for economic rehabilitation within the SADCC region including Angola, Tanzania and Zambia. Following the 1986 Harare Conference, a region-to-region co-operation mechanism was established between SADCC and the Nordic countries (Danmark, Finnland, Iceland, Norway and Sweden). The Nordic-SADCC fund was created to help finance among other things maintenance and rehabilitate production capacity in the SADCC countries.

The Preferential Trade Area for East and Southern Africa (PTA), which presently has 15 member states, including Tanzania and Zambia, aims to liberalize trade, encourage co-operation in industry, agriculture, transport and communications, and create a regional common market.

The Southern African Development Co-ordination Conference (SADCC) has nine member countries, including three of the countries studied (Angola, Tanzania and Zambia). It seeks to increase trade among member states by harmonizing tariffs, complementary planning of infrastructural and industrial projects, and, where politically feasible, co-ordinated production.

Liberia is a member of both the Economic Community of West African States (ECOWAS) and of the Mano River Union (MARIUN), two regional organizations which seek to promote trade among member states through harmonization of tariffs, gradual elimination of all trade barriers, and identification of industrial and other projects in member states which have the greatest comparative advantage within the enlarged market.

Increasing prospects of economic integration in Africa is becoming more lucid as new world trade blocs such as the EC's single market in 1992 emerge. Economic co-operation among African countries is expected to involve activities such horizontal and vertical integration of production units in industry, agriculture and other economic sectors at both the national and inter-regional levels. However, the benefit of economic economic integration such as: more production and more prosperity through better allocation of scarce resources; more efficient production thanks to scale economies and keener competition, and; improved terms of trade for the sub-region in respect to the rest of the world is not fully utilized. Several factors and obstacle hinder efforts at full economic integration. These include:

- weak institutional capacities and capabilities; political, legal, administrative systems are complex and as a result significant institutions and bodies for economic integration are under-developed and unco-ordinated;

- ill-defined role and narrow perception of role of industry in national and regional economic development;

- ineffective economic and industrial policies and measures, and divergent national policies and interests which prevents convergence and harmonization on sub-regional issues and matters;

- less developed physical infrastructure including transport and communication systems which tend to hinder flow of information for policy makers, manufacturers and consumers;

- diversity of political, linguistic and monetary systems and primacy of nationalistic interests which result in the imposition of protectionist measures (import restrictions, etc.);

- complementarities of commodities - most SSA countries produce the same type of goods and commodities, especially agricultural thus, limiting trade, etc.

For example, efforts at fostering co-operation in western Africa have not been very successful, by comparison with the SADCC countries, due to the lack of effective strategies for promoting industrial policies, and the relative lack of support to these organizations from either member states or outside parties. An additional factor has been the domination of the community by the economic giant of the region, Nigeria, which has a far more developed and diversified economy (and manufacturing subsector) than the other members. Western Africa thus continues to be characterized by a multiplicity of non-convertible currencies, a relatively small proportion of intra-regional trade, and a lack of specialization in production, with member states producing similar types of goods a situation not conducive to lage trade.

In order to develop and strengthen regional and sub-regional co-operation among African, especially in the field of industry, essential support services would be needed (from UNIDO, UNDP, etc.) to promote project investment funding; build institutional capabilities/capacities through training, planning, etc.; develop industrial information and data systems; organize technical consultations among African countries and donors; establish industrial promotion co-ordinating committees; assist countries in rehabilitation and expansion of existing national and multinational projects, etc.

(c) Policies

The major policy instruments in the hands of international actors include: trade policy; external aid flows; direct project assistance, including both financial and technical assistance; and provision of loans, as well as debt restructuring or debt relief measures.

Trade policy remains a problem; in addition to problems experienced on a global level, there has been a disappointing rate of growth in intra-regional trade, which has shrunk as a proportion of African trade. Tanzania's trade with PTA countries on the 1980s, for instance, declined sharply, due to the overall stagnation of import capability. In addition effective mechanisms for trade promotion in the PTA were by then not put in place.

External aid flows are not well co-ordinated. The benefits to be derived from increasing donor activity in Tanzania, for example, have been lessened by unco-ordinated donor assistance and the apparently differing motivates of individual donors. In some cases, the country concerned has not clearly defined its own development policies and (asserted or) reasserted its own role in development co-operation.

Project assistance, including both financial and technical assistance, is a key policy instrument, which is again interpreted differently by donors. While the co-ordination between donors, usually organized by international institutions, has probably improved in the 1980s, there are still too many cases when two or more donors present different solutions to a problem (such as the location of a new power station or road) in order to push their own national commercial interests. In most cases, scarce investment resources were spread over a wide area without getting the focus right.

Loan and debt policies of multilateral and bilateral creditors, have started tentatively to reflect African realities. Since the Toronto summit several developed countries (e.g. Belgium, France and the USA) have introduced relief packages. Debts have been cancelled and interest rates reduced, but the packages have concentrated on development loans, rather than balance of payments, lending and government guaranteed commercial credits. Multilateral organizations, such as the IMF, World Bank and African Development Bank, have softened their terms, but stopped short of cancellation.

Additional policy tools which are particularly useful for regional actors include: co-ordination of infrastructure development; supply of inputs and spare parts; financial institutions; production; marketing; and training and technical assistance. The following focuses on regional aspects of these policy tools, as the global dimensions are treated in chapter 3 above.

Infrastructure development, involving a major road and railroad rehabilitation and maintenance programme, is needed both within and among countries in the region, so as to reduce vehicle maintenance and depreciation costs and improve delivery times and charges. One major example of regional

infrastructural development relates to the eventual rehabilitation of the Benguela railway, as part of the ten-year development plan prepared by the Southern African Transport and Communications Commission, which would have important implications for the rehabilitation of Angolan agro-industry, as well as export-oriented industries in Zambia.

In addition to co-ordinating the supply of major inputs, a specific suggestion was made in the Zambia report for an in-depth investigation into the possibility of establishing a "Spare Parts Agency" within SADCC to facilitate the purchasing and stocking of spare parts for industrial customers, thus reducing the need for large inventories or lengthy waiting periods for essential spare parts.

Consideration need to be given to proposals made by SADCC and its partners for the strengthening of industrial financial institutions, particularly as they relate to the financing of industrial inputs, export credits, equity holdings and cross-border investments, as well as for the formation of a region-wide SADCC business sector group to help strengthen working relations and promote understanding between local enterprises, foreign investors and government services. In this connection, the experience of the Beira Corridor Group could by a useful starting point.

Co-ordination of production in the regional and sub-regional context mainly involves better utilization of complementarity, as well as sharing of facilities in the region wherever this is feasible. In particular, 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 Tanzanian sisal could be used in bag manufacturing in Angola), as well as an exchange of experiences on progress made by the more successful countries in making use of local inputs as substitutes for imported inputs.

Marketing and trade contacts need to be further developed, as through the identification of joint activities within the region, and linking users and producers of various goods and services, and identifying vertical linkages among them. The regional market can help to make better use of existing production capacities (e.g. supplies of paper materials from Southern Paper Mills in Tanzania could be used in paper packaging activities in Zambia). Support services 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. National standards bodies are being established or strengthened in the SADCC region, with resources being mobilized specifically for this purpose. The compilation of a list of goods and services currently exchanged in the SADCC region and the relevant technical regulations governing them is being prepared, so as to facilitate harmonization of standards and certification systems. In ECOWAS it will be necessary to introduce trade representation abroad, geared to specific export markets.

Training facilities and opportunities need to be given particular attention within the regional context. For example, an inventory of training institutions in the SADCC region has recently been completed, and there is now a need to devise ways for the utilization of common training facilities (e.g. management training programs sponsored by the Eastern and Southern African Management Institute, based at Harare and Arusha). More attention need to be given to on-the-job training for technicians at other firms and institutions in the region. Special attention has to be paid to skills training in rehabilitation in specific industries.

Technical assistance in the SADCC region, for example, can be improved through a network of consulting and engineering design organizations 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 with respect to information exchange, seminars, identification of joint ventures, joint development/consulting activities, etc. As with other aspects of regional co-operation, technical assistance within ECOWAS and MARIUN has been practically non-existent, and much needs to be done.

(c) Performance and objectives

The major performance measures for comparisons of progress among African countries toward

3industrialization include GDP (in absolute terms, in terms of relative rate of growth, etc.), MVA (in absolute terms, in relative growth terms, and as a proportion of GDP). Both GDP and MVA are often expressed in per capita terms in order to take into account the rate of demographic growth, which is a major factor in the African context. Such indicators are particularly important as a means of assessing the degree to which the countries of Africa are closing the gap which separates them from other developing countries. These considerations are treated at length in section 3.1 above.

Objectives at the global level are not as clearly defined as is the case for an individual country or firm, since there is a wide range of separate actors seeking to define international standards and priorities. It is nevertheless instructive to look at the objectives which have been set forth for the Africa region by the major global and regional actors.

The perspectives of the World Bank, the UNDP and the ECA are treated at length in chapter 3 above. Although differing considerably on specific details and general assessment of trends, these agencies have mutually reinforcing views on the need to reduce the gap in Africa's economic and industrial development, with a marked emphasis on agro-industry. In general, the major actors at the international level have voiced disappointment at the lack of achievement of defined objectives for IDDA. This has led, however, to a renewal and redoubling of efforts, as through the proposed declaration of a Second Industrial Development Decade for Africa.

4.2 Findings at the country level

(a) Constraints

The constraints at the country level are organized in terms of three categories: geographical and political conditions; macro-economic conditions; and international economic relations, including trade patterns, capital investment flows, aid flows, and debt repayment policies.

Geographical conditions refer to relative resource endowments and other conditions affecting each country individually, as well as constraints which are posed by each country's regional context. A country such as Zambia, for example, must manage with its land-locked situation, a precarious state of security along its major export routes, pressures to avoid marketing to or through South Africa, and great distance from markets in the developed countries. The fluctuating impact of climatic conditions and regional conflict must always be taken into account.

Macro-economic conditions are of paramount importance. Although the UNIDO programme focuses primarily on rehabilitation of individual plants, the successful implementation of recommendations regarding the regeneration of manufacturing industry in a country such as Angola depends on the overall long-term recovery of the economy, which in turn requires the reestablishment of peace in the area.

International economic relations relating to trade, capital investment, donor assistance and debt repayment are treated in chapter 3. The main point to be emphasized here is that constraints upon individual countries relating to trade, capital, aid and debt repayment flows are interlocking. It is clear, for example, that persistent trade deficits create a need for the generation of foreign exchange through some combination of externally provided private investment and donor assistance. Similarly, a lack of investment capital for projects can lead to external borrowing. On the other hand, growing debt and cumulative balance-of-payment deficits tend to discourage the very donors and, particularly, the investors whose capital is needed to stimulate economic growth.

(b) Institutions

Institutions at the government level are well established and exercise a much greater degree and breadth of authority than is the case at the global or regional level. The institutions of particular concern in this context are those responsible for: overall economic planning; promotion of industry; and promotion of exports.

The central economic planning institutions in the countries under review continue to play a major role, in spite of the widespread trend toward privatization and a reduced role for government. The UNIDO missions found, however, that many of the functions exercised by institutions involved in industrial development are carried out inefficiently and should be reviewed. In some cases, weaknesses were pointed out for government attention. For example, there are three governmental agencies in Angola responsible for import procedures within their respective fields, but no co-ordinating body has overall responsibility to ensure that the system works in a timely and coherent fashion. In other cases, specific recommendations were made regarding ways to improve the performance of the these institutions. For example, in Zambia, where the regular reshuffling of INDECO's key personnel is an obstacle to continuity in business operations and to the accumulation of experience at the enterprise level, a recommendation was made for more stability in plant management, together with greater freedom for managers to make business decisions. A strengthened INDECO would have a better industrial advisory capacity for both rehabilitation projects and new investment.

With respect to industry, the main counterpart institutions with which UNIDO works are the Ministère de l'Industrie in Angola, the Ministry of Commerce, Industry and Transportation in Liberia, the Ministère de l'Industrie in Morocco, the Ministry of Industry and Trade in Tanzania, and the Ministry of Commerce and Industry in Zambia. Ministries concerned with national planning, finance and trade are also important to consult, as are the various institutions set up for parastatals or co-operatives.

Institutions for export promotion are not always appropriate to the task. In Angola, for example, the several institutions involved in promoting exports, have almost no commercial representation or trade offices abroad. Zambia's Board of External Trade is also not sufficiently well represented abroad, mainly due to the high costs involved. In Liberia, too, there are no permanent trade organizations abroad for export promotion, and most companies seem to promote their own products with little governmental assistance.

(c) Policies

The major policy variables are: general policies toward stimulating economic growth; tax and tariff policies; foreign investment conditions; industrial ownership; wages and prices policies; and human and natural resource development.

(i) Macro-economic policies

In Liberia, rehabilitation and promotion of manufacturing, especially based on renewable natural resources, agriculture, forestry and fisheries, requires a coherent policy framework which would include policies toward protection, taxation, credit, exchange rates, and interest rates. The new Investment Incentive Code includes the Government's proposal to pursue seriously the establishment of secondary processing industries, an indispensable element for industrial development.

In Tanzania, there is as yet no coherent strategy for industrial rehabilitation; priorities need to be established and translated into specific action programmes. As implementation of Tanzania's Economic Recovery Programme proceeds, attention should be directed towards re-establishing macro-economic equilibria within a relatively short-term policy perspective. Since the existing distortions are still substantial, the short-term adjustment process could present serious problems for the authorities, and, if not carefully monitored, interfere with long-term growth and development objectives.

(ii) Tax and tariff policies

In Liberia, the manufacturing sector is heavily dependent on imports of equipment, intermediate inputs and raw materials. Import duties, especially on machinery and spare parts, often raise production costs to uncompetitive levels.

The Tanzanian government need to be continued to review its tax, and tariff policies. Under present circumstances, potential exporters making use of inputs from domestic enterprises may be subjected to

import duties and/or sales taxes.

The export retention scheme, while justified as a temporary measure, has produced some negative effects. Producers have a strong incentive to export goods to obtain access to much needed foreign exchange, but, in some cases, these exported goods are also sought by domestic producers who cannot obtain adequate supplies to maintain production levels. Such distortions would disappear with the liberalization of markets.

Many Tanzanian manufacturers are dependent on imported raw materials, spare parts and machinery. Priority in foreign exchange allocation has been given to raw material imports so as to prevent the flow of products stagnating. Raw materials, spare parts and machinery imports bear variable tariff rates and add to production costs. However, these short-term costs will be offset in the longer term by increased production and profitability.

The steep devaluation of the Tanzanian shilling since April 1986 has meant that those companies with weak financial structures have struggled to meet cash cover requirements for importing inputs. Credit allocations did not remedy this problem, partly because of the credit ceilings under the IMF agreement and the relatively large share of credit allocated to co-operatives and marketing boards.

The overriding constraint faced by many companies in Tanzania has been the shortage of foreign exchange needed for the importation of spare parts and machinery. The system of foreign exchange allocation even under the revised schemes is still too slow; attempts should be made to speed up procedures. Wherever necessary, the production of spare parts should be encouraged and promoted. In some contexts, a selective tariff structure should be worked out, with high rates on competing imports and low to zero rates on non-competing imports.

(iii) Foreign investment incentives and restrictions

The attraction of Liberia as a host economy to private investment should be enhanced by the section of the proposed Investment Incentive Code entitled "Security of Investments", according to which, local and foreign investments are guaranteed by the Government and are fully protected by law. Provisions are also made that private enterprises cannot be nationalized under any circumstances.

The Government of Tanzania is presently considering changes in its Investment Code, with a view toward stimulating more foreign investment. However, this may place at a disadvantage potential Tanzanian investors who would be in a weaker position than the foreign investor, mainly because of limited access to foreign credit and technology. Special measures are also needed to encourage Tanzanian private capital to play a more significant role in the country's development.

A general point to be made about investment incentives is that the African governments are competing for limited external capital. It is not sufficient to offer attractive terms; the latter must stand the test of international comparisons, particularly as the dramatic political events in Eastern Europe since the final quarter of 1989 have raised legitimate fears that Western business interests will show less interest in African projects. The investment record of those same interests in Africa has been poor, with exceptions in natural resources (e.g. oil in Angola, gold in Ghana and diamonds in Botswana).

(iv) Share of public and private enterprises

Serious consideration need to be given to the overall organization of the manufacturing sector; many of the benefits of the Economic Recovery Programme in Tanzania could be wasted through continued support of largely inefficient parastatals. The Government of Tanzania should further consider whether to retain public ownership of its parastatals; these parastatals should be ranked according to their contribution towards overall development objectives, with resources channelled according to clearly established priorities.

The lack of competitiveness in Tanzanian industry, and the continuation of various monopolistic

practices, gives cause for concern. Prospects for increasing Tanzanian exports of manufactured goods will be severely curtailed if raw material and intermediary inputs have been inflated by monopolistic practices or non-competitive markets.

(v) Wages and prices policy

Wages and price policy is also a concern, for example, in Tanzania, where the liberalization of producer prices has raised raw material input prices, which are ultimately passed on to the consumer. Given fairly static real wages, there is a danger that the demand for consumer goods (outside the farming community) will be constrained by depressed purchasing power. The currently stringent economic climate does not permit at present large wage adjustments, although in July 1989 parastatal employees received their first increase for more than two years, and some part of the anticipated productivity increases in industry should be passed on in the form of wage increases. Therefore, the prevailing price control system in Tanzania need to be reviewed, and greater flexibility introduced. Attention needs to be paid to the effects that high input prices have on many firms; a measure of input price control for specific industries could enhance company profitability and maintain the prices of products.

In Angola, the price control system governing both company inputs and outputs, linked with foreign exchange shortages, has had a generally negative impact on production. It has also led to the emergence of a flourishing parallel market, and contributed to the general collapse in the production of foodstuffs for sale in urban areas. Much of the economy has reverted to a barter system, in which the local currency has ceased to play a significant role as a means of payment. These are the problems which SEF is concerned to address in the monetary field, and whose effective resolution is a prerequisite for the successful implementation of industrial rehabilitation programmes.

(vi) Human resource development

One of the most important mechanisms for spreading the benefits of development is creating and maintaining employment, especially for rural residents and women. For example, Kenya and Liberia, as in the other countries, under survey, some of the firms selected for study play a crucial role in maintaining present employment and in generating additional jobs in areas where the closing down of the firm's operations would bring about a major crisis. This is especially true of remote located wood processing operations. In Kenya, the Government has established a training school, "Kenya Textile Training Institute" (KTTI) in order to increase the number of skilled textile specialists. The concept of the training scheme is weak and women are yet to benefit from the KTTI programme.

(vii) Natural resource development

Liberia, for example, has large reserves of untapped natural resources that are expected to remain unexploited. Abundant iron ore reserves await exploitation, while the principal foreign investor in the industry is considering withdrawal. World market price levels discourage new investment. With rubber, the Government has had some success in attracting donor interest in project support, but the Japanese tyre manufacturer which bought the Firestone plantations in 1988 has already started to reduce its labour force.

(viii) Performance and objectives

Institutions at the national level have well-specified performance indicators in terms of: growth rate; population growth, which in turn affects income per capita; and stimulation of manufacturing industry

4.3 Findings at the sector and sub-sector level

(a) Characteristics of agro-industry

As discussed in chapter 2, the focus of concern is on branches of manufacturing industry which could properly be designated as "agro-industry" in view of their close linkages to the agricultural sector. In all the countries studied, and in nearly all the countries of Africa, the branches of manufacturing relating to food, beverages and tobacco are the most important in terms of gross output. However, since food, beverage and tobacco processing is often at a technically rudimentary level, its share of MVA is often much lower than its share of gross output, in comparison with, for example, textiles and mineral-based industries.

The food and beverage processing branches which are covered in a separate paper on branch-specific recommendations are fruit and vegetable processing, meat and fish processing, stockfeed manufacturing, and oil milling. Additionally, the review incorporates two branches which are closely related to agro-processing, packaging materials and wood processing.

Food processing covers both the production of crops and the processing of agricultural raw materials by the manufacturing sector. Domestic food processing has become an essential element in basic needs strategies. The food products subsector sometimes accounts for more than 50 per cent of total manufacturing output and MVA. Agro-processing, wood processing and textiles together account for well over half of industrial production in each of the countries studied, as in nearly every African country. There has been only a very modest shift in a few countries away from agro-processing toward branches of industry based on a wider range of raw materials, which tend to involve more complex and capital-intensive processes.

Food processing is an important industry for several reasons. First, it tends to be labour-intensive, and can play a major role in reducing unemployment, absorbing labour released by growing agricultural productivity and/or land scarcity, and providing additional employment during the slack season in agriculture. Second, food processing technologies are often relatively unsophisticated and suitable for small-scale processing. It is also important because it creates value added from the processing of agricultural raw materials.

(b) Constraints

Demand for manufactured food products is generally concentrated in urban centres in the countries under review (except for Morocco), and the larger processing plants tend to be located in capitals, ports and other major towns.

Agricultural exports are directed to highly competitive markets, usually in developed countries characterized by a strong negotiating position against a background of overproduction. The result has been weak prices, two extreme examples being cocoa and coffee at the end of the 1980s. Since many African countries are highly dependent on export crops for their foreign exchange earnings, the consequence has been a marked deterioration of their balance of payments. Exporting processed agricultural products would help to boost foreign exchange earnings, by increasing value added and reducing vulnerability to volatile commodity markets.

The food products subsector can only perform well if regular, balanced growth in the agricultural sector, the supplier of its raw materials, is assured. Providing the appropriate stimuli to agriculture is therefore essential for development in the food products sub-sector. Development of the latter subsector also requires access to packaging materials, an indispensable element in processing.

Wood processing is based on vegetable raw materials (as is food processing, directly or indirectly), and faces a number of common problems. Indiscriminate logging, for example, has been a major source of desertification, which in turn is a major cause of the agricultural crises of many West African countries. Ways must be found to restructure the branch in such a way as to make better use of the available raw materials and to bring a halt to desertification.

(c) Institutions

There continues to be relatively close ministerial control with respect to the planning and operation of public enterprises. In Liberia, for example, plans to reduce the role of the state in the economy have remained on the drawing board. Parastatals have been targeted for privatization, but are still in the public sector, either because (like the refinery) they offer the government easily collected revenue or because they are not in a financial condition to attract any serious buying interest.

(d) Sector-specific policies

Generally speaking, the policies for agro-industry or for the food processing subsector also apply to the individual branches. Recurrent elements in these policies are: increased use of domestic inputs (allied to campaigns to increase agricultural output), improved domestic supply of processed food as part of a basic needs strategy and stimulation of non-traditional exports such as processed foods. The missions identified certain steps taken that are branch-specific, but fall within a broader policy for the sector or the economy as a whole. Some examples are highlighted below.

- The Government of Angola subsidizes plastic bags, which in turn are used for exports of agricultural products, by allowing enterprises to pay only 50 per cent of the import duties for plastic raw materials.

- In Kenya, imported uncarded cotton attracts a 30 per cent tariff and no sales tax; similarly, imported uncarded polyester fibres have 25 per cent tariff and no sales tax. These tariffs have imposed a significant disadvantage on the textile industry, in that, the bans and tariffs against imported fabrics and clothing have been so permeable, and hence illusory. As a result, unofficial imports are large. This tends to restrict the growth of the textile industry

- In Liberia, firms owned by nationals in wood processing have been encouraged by the Government to create a professional group, the Liberian Wood and Carpentry Industry Association, whose main objective is the development of secondary wood processing.

- In Tanzania, the Government's commitment to reducing fruit spoilage, as part of a policy to raise nutritional standards, has resulted in priority being given to fruit canning over a number of other agro-industries. For similar reasons (to raise nutritional standards through livestock production), the Tanzanian feedstock industry is given particular encouragement.

- The policy of the Government of Zambia toward the price of cooking oil, whose price is still controlled in spite of the liberalization of other prices, exerts a negative influence on the oil milling branch and thus on agro-industrial production.

CHAPTER 5

MAJOR FINDINGS OF REHABILIATION PROGRAMME AT PLANT LEVEL: STRUCTURAL CHARACTERISTICS

Individual firms, in both the public and private sector of the six countries studied are the focus of concern in this section. Table 7 ndicates certain salient characteristics of the 23 firms studied in detail by the respective UNIDO field missions.

Institutions at the sectoral, sub-sector, branch and plant levels are under-developed. The few ones existing such as ministries of industries and trade etc., R&D, manpower and training institutions and standards and quality-control institutions are unco-ordinated. For, example, quality-control facilities at the plant level (in stockfeed plant in Tanzania, vegetable and fruit canning plant in Morocco, etc.) are under-developed. Capability and capacity deficiencies of industrial institutions (both at the national and plant level) are basically organizational and budgetary in nature.

5.1 Structure of plants

The characteristics of companies surveyed in the six countries are given below.

(a) Plant history and assets

Majority (about 41 per cent) of total number of firms for which data was available were established during the early- and mid-1960s. About 23 per cent of the reporting firms were much older. One plant was established as far back as 1908, and the others in the 1950s. The rest were commissioned during the 1970s and early-1980s.

Most of the old plants were in Angola established by the Portuguese (one of the oldest is a wheat milling plant established in 1968); the rest in Morocco and Tanzania. Several of the firms reported one or more expansions of physical capacity, but only a few firms reported undertaking major plant construction or expansion in the 1980s. Most of the capacity expansion projects (physical and non-physical) were spread across a long length of time and were partial completed or incomplete projects. In a good number of cases rash changes in ownership and persistent shortage of operating capital were the main reasons for incomplete rehabilitation and physical expansion of plants. More than six of the 23 enterprises, especially those having interlined production chain such as vegetable oils and soaps manufacturing enterprises reported having more than one plant.

The value of fixed assets for the 13 firms for which this data could be obtained averaged US $2.9 million, with a median of US $1.9 million and a range from US $0.1 to US $11.7 million. Five of these firms possessed fixed assets valued at less than US $1.0 million, another five had fixed assets valued at between US $1.0 to US $3.0 million, and the remaining three had fixed assets valued at over US $5.0 million.

Table 7 Profile of enterprises included in rehabilitation diagnostic survey

Enterprise No.	Country	Ownership	ISIC code	Major products
1.	Angola	Private	3114	Fish products
2.	Angola	Private	3211	Natural fibre bags
3.	Angola	Private	3115	Vegetable oils; seed-cakes; soaps
4.	Angola	Public	3116	Stockfeeds
5.	Angola	Private	3211&3513	Raffia sacks and plastic bags
6.	Kenya	Public	3211	Bedsheets; polyester, viscose textile products; linen
7.	Kenya	Public	3113	Fruits and vegetables (dehydrated)
8.	Kenya	Public	361	Tiles; crockery; sanitary ware
9.	Liberia	Private	3111	Poultry
10.	Liberia	Public	3311	Wood products
11.	Liberia	Public	3559	Rubber products
12.	Liberia	Mixed	3115	Vegetable oils
13.	Morocco	Private	3113	Fruit, vegetables
14.	Morocco	Private	3113	Dates
15.	Morocco	Private	3112	Dairy products
16.	Tanzania	Public	3113	Fruit products
17.	Tanzania	Public	3116	Stockfeeds
18.	Tanzania	Private	3412	Paper packaging
19.	Tanzania	Public	3112	Dairy products
20.	Zambia	Public	3115	Stockfeeds and maize meal
21.	Zambia	Public	3513	Synthetic bags for packaging
22.	Zambia	Private	3116	Stockfeeds
23.	Zambia	Public	3111	Meat products

(b) Ownership

More than half (12 firms, 52 per cent) of the 23 firms surveyed are firms owned or controlled by government and parastatals. The rest, are privately owned (10 firms, 43 per cent) and the only one (4 per cent of the total) is a Liberian firm of mixed ownership (see figures 7 and 8). The private owners are in most cases national citizens, although in at least three instances a minority share is held by one or more European investors. In several cases, there were at least stated intentions to move in the direction of privatizing government-controlled or parastatal organizations, especially in Kenya and Liberia.

More than half 68 per cent (15 in number) of surveyed enterprises were wholly or partially food processing firms. The remainder are predominantly of the wood and paper branches of industry. This re-echoes the importance of agro-industries in the economies of the countries (and in SSA in general). Firms of this branch of industry have high forward linkage potentials with other economic sectors and industry, for example, with the packaging, chemicals (fertilizer, pesticides, fumicides, etc.) industries and other upstream processing activities such as stockfeed and soap. In Morocco, all 3 plants surveyed were food processing firms. Likewise are 3 firms each in Angola and Tanzania.

(c) Management

The senior managers of nearly all the privately owned firms, and of all the publicly controlled firms, are citizens of the country in which the firm is registered. Exceptions are: a senior manager of one firm who is a Portuguese, but who has been resident in Angola for over 40 years, and a senior partner of another firm who is of German nationality and; a German general manager of a parastatal ceramic firm in Kenya who lived in that country since 1977. New policy trends regarding changes in investment laws and revision of enterprise establishment regulations are likely to lead to future increases in the number of expatriate personnel in the top hierarchy of management in manufacturing firms.

(d) Size of enterprise (number of employees)

Four of the 20 firms for which data was available employed less than 100 persons (without casual workers), fourteen employed 100-599 persons, and another four employed 600 or more persons (see table 8). This concentration on firms which, in the African context, should be considered medium-scale, is largely due to the selection process, which focused on rehabilitation of existing firms that have underutilized capacity but insufficient resources or expertise to overcome obstacles preventing them from making effective use of their capacity.

The largest enterprise of the survey is a parastatal textile plant located in Nyanyuki approximately 200 kilometres north of Nairobi in Kenya. It is a source of employment for approximately 1,000 workers and processes textile products such as bedsheets, curtains, polyester viscose and linen purposely for the domestic market. On the average, the largest enterprises classified in terms of number of employees are concentrated in Kenya and Angola.

A significant feature of firm size is the casual labour engagements. Significant variation in size of firms due to employment or lay-off of casual labour (seasonal labour) makes the definition of firms size in the survey problematic (this is a case problem in SSA as a whole). All the 20 firms for which data was available relied predominantly on regular employees; 8 of these firms make significant use of casual workers. Firms with integrated production process (agricultural and industrial) depend on large casual farm labour, especially in anciliary estate farms. Two enterprises, a fruit and vegetable canning unit in Kenya and a dairy product manufacturing enterprise in Tanzania engage about 270 and 174 casual workers respectively on farm units.

The great majority of workers are male, although some sections, particularly in the food processing and textile industries, also employed female workers. For the female casual workers, engagements, especially on firms' farm units were important source of additional income.

Figure 7: Ownership structure of firms of survey

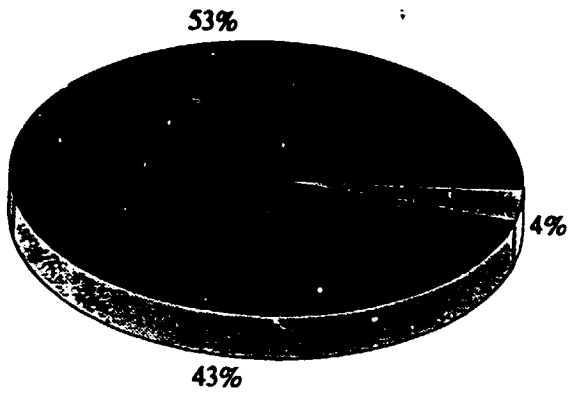

Figure 8: Ownership structure of firms by country

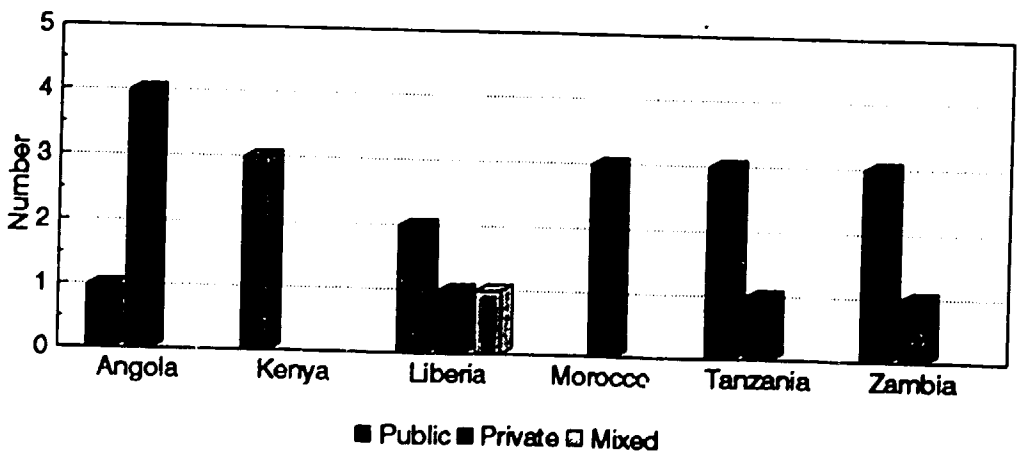

Table 8: Size of firms by number of employees

Country, firm	Below 100 persons	Between 100–599 persons	600 persons and above
ANGOLA			
Firm A 311	X		
Firm B 311		X	
Firm C 311			X
Firm D 321		X	
Firm E 311			X
KENYA			
Firm A 321			X
Firm B 311		X	
Firm C 361			X
LIBERIA			
Firm A 355	X		
Firm B 311		X	
Firm C 311	X		
Firm E 311			
MOROCCO			
Firm A 311	X		
Firm B 311			
Firm C 311			
TANZANIA			
Firm A 311	X		
Firm B 311		X	
Firm C 341	X		
Firm D 311		X	
ZAMBIA			
Firm A 311		X	
Firm B 351			X
Firm C 311		X	
Firm D 311		X	

Note: "X" represents applicable only to firms for which data and information were available.

(e) Capacity utilization rate

Data for 18 firms was obtained regarding measurable aspects of capacity utilization, including time utilization and production capacity as well. Data of the individual firms with respect to these indicators were so varied and incomplete to yield more meaningful statistical analysis. However, a general indication of the extent to which the capacity of individual plants is utilized will be given.

Information on the indicator of time utilization suggests a trend of bimodal distribution, with either very little or very much unused capacity, rather than a normal distribution around an estimate of optimal or near optimal capacity. In terms of the number of operating hours per week, two of the firms reported only 24 to 25 hours per week, and another five had an operating period of between 30 and 45 hours per week, while at the other end of the scale, one firm reported 84 hours per week, and ten others reported from 120 to 168 hours per week. A similarly large divergence is suggested by estimates for the number of days the plants were not operational in the previous year; executives of seven firms indicated that there were no days lost. Another three reported less than 15 days, one indicated 60 days, and four reported more than 110 days lost. In terms of intensity of use, three firms reported that their plants were used at about one-third capacity during operating times, seven reported 40-60 per cent capacity utilization, and the other eight claimed 70 to 100 per cent capacity utilization. It was observed that firms in Kenya produced at relatively higher capacity.

Several reasons were cited by senior managers to explain under-utilization in their factories. These include the following:

- lack or irregular supply of raw materials and consequent interruptions in production activity and high production costs - this bottlenecks indicate insufficient development of the agricultural sector and/or poor co-ordination between agriculture and industry, and inefficiencies in transport and storage systems;

- lack of packaging materials (metal cans, paper, synthetic and other natural fibre packaging containers, printing facilities etc.) indicating that inter-industry linkages are inadequately developed.

- lack of plant machinery, obsolete machinery and lack of spare parts or stand-by equipment, equipment or mechanical breakdown, use of parts of breakdown machinery as spares for other malfunctioning machinery and equipment, a practice known as machinery "cannibalism";

- lack of repairs and maintenance of plant machinery and equipment;

- high cost of energy due to old machinery and high energy consuming processing technology;

- fluctuations in energy supply due to rampant electrical power cuts, and inadequate or irregular water supply for processing;

- lack of qualified and experienced management personnel, skilled technicians and labourers; and

- high turnover of key management personnel and skilled labour due to unattractive salary structure, and;

- lack of free flow of information between management and production staff

Allowing for the natural tendency of managers to overlook obstacles to full capacity utilization that may reflect in themselves, it is nonetheless evident that the most critical constraints are factors external to the individual firm. Irregular supplies of agricultural inputs and packaging materials is the most frequently mentioned obstacle. The lack of replacement parts and equipment (often resulting from foreign exchange constraints) is also a serious problem. Inadequate or irregular supply of water and electricity represents a third major category of constraints.

(f) Supply of inputs

Productivity in entirely all the firms is hampered by inadequate supply of raw materials, spare parts, power and water (water for processing is a scarce input for Moroccan enterprises). Most firms were therefore more concerned with increasing productive use of already installed capacity than with expanding their overall productive capacity.

For nearly all firms studied, the major inputs, both by volume and by value, were locally supplied (e.g., fish, grains, fruits, wood, palm kernels, quartz sands, feldspar, etc.). Domestic raw material-based industries are expected to increase value added to processed agricultural commodities and provide domestic market for agricultural produce generating, thereby, income, especially for the rural population and increasing in turn the effective demand for manufactured goods. Contrary to expectation, most of the enterprises surveyed had problem of raw material shortage, especially those produced locally. For instance, all five plants in Tanzania suffered from a shortage of locally produced or imported inputs because of severe transport difficulties, storage problems, limited local production, particularly of agricultural produce due to unfavourable weather conditions and high perishability rates of agricultural produce, and lack of foreign exchange. These plants were in dire need of additional vehicles for ferrying raw materials and finished goods.

Import content of manufacturing plants in Liberia and to some extent those in Kenya are is minimal. The main inputs of the animal feed, palm oil and wood processing plants in Liberia, and the ceramic plant in Kenya are domestic.

With the exception of Liberian and Kenyan plants, firms of other countries of survey import relatively large quantities of various inputs such as vitamin premixes, chemical additives, casings for sausages, synthetic fibres from European countries (UK, Germany, Austria, France, etc.), USA and India. A Zambian jute fibre bag plant imports kenaff from Bangladesh and a margarine processing plant imported all essential vegetable oils and lecithin from Europe. The imported inputs, nevertheless, provided critically needed ingredients, the lack (due mainly to foreign exchange shortage) of which could cause a shut-down in production.

The supply of machinery, equipment and spare parts represents an equally serious potential constraint. All firms surveyed needed to import a range machinery and equipment and spare parts, because the respective countries lack strategic industries (electrical, machinery and engineering sub-sectors) for the manufacturing of intermediate and capital goods. Essential spare parts are usually imported from Europe, but also in some cases from the USA, Japan or South Africa. However, an increasing range of spare parts were prepared locally in Tanzania and Zambia.

(g) Production level

Annual sales revenue is the most useful measure for comparing output of agro-industrial firms, if only because of the incomparable physical units by which the output of the respective branches is measured (e.g. tonnes of animal feed, heads of cattle, litres of milk). The annual sales revenue of the firms surveyed ranged from US $0.9 to US $8.0 million, with an average of about US $3.5 million.

Annual sales revenue is broken down wherever possible into input costs and manufacturing value added. In general, input costs accounted for about three quarters of sales revenue (excluding one case where input costs exceeded turnover for the year in question). Value added in most cases ranged from 7 to 30 per cent, although two firms (both of which manufacture synthetic bags for packing) reported MVA rates accounting for nearly 50 per cent of sales revenue.

(h) Marketing

Markets and marketing structure characteristics of firms surveyed is presented in table 9. The market share for each firm's products varied from 3 to 90 per cent, but generally fell in the range of 15 to 30 per cent for the products of privately owned firms, and in the range of 30-50 per cent for the products of publicly

Table 9: Market and marketing structure of firms

Country, firm	Local competitors	Sales organization/ strategy	Export	Significant export potential in future
ANGOLA				
Firm A 311		No	No	Yes
Firm B 311		No	No	Yes
Firm C 311		No	No	
Firm D 321	Yes	No	No	Yes
Firm E 311	Yes		No	
KENYA				
Firm A 321	Yes	Yes	No	Yes
Firm B 311	Yes	Yes	Yes	Yes
Firm C 361	Yes	No	Yes	Yes
LIBERIA				
Firm A 355	No	No	Yes	Yes
Firm B 311	Yes	Yes	No	Yes
Firm C 311	Yes	Yes	Yes	Yes
Firm E 311	Yes	Yes	No	Yes
MOROCCO				
Firm A 311	No		Yes	Yes
Firm B 311	Yes	Yes	No	Yes
Firm C 311	No	Yes	Yes	No
TANZANIA				
Firm A 311	Yes	No	No	Yes
Firm B 311	No	No	No	No
Firm C 341	Yes	Yes	No	No
Firm D 311	No	No	No	No
ZAMBIA				
Firm A 311	No	Yes	No	Yes
Firm B 351	Yes	Yes	No	Yes
Firm C 311	Yes	No	Yes	Yes
Firm D 311		Yes	No	Yes

Note: "Yes" and "No" applicable only to firms for which data and information were available.

controlled firms. Although in several instances the national market for a given product was divided among a wide range of competing firms, the existing market conditions scarcely satisfy the standard criteria of competition. For example, in several cases the combined output of a set of competing firms did not fully satisfy customer demand for their products (for example, customers of a fruit processing plant in Morocco disliking products' packaging material), and administered pricing or other conditions prevented the raising of prices to a market-clearing level, instead resulting in a sellers' market whereby the firms' products could be sold literally at the factory gate.

In situations where goods sell themselves, competition is weak and plants sell all they produce, there is no urgent need for firms to developed effective marketing systems and strategy. Only six enterprises reported having well-developed marketing systems and strategy. To compete against high quality imported textile products, a Kenyan textile enterprise resort to advertisement in radio, dailies, magazines, and at exhibitions. Similarly. Two vegetable and fruit processing enterprises in both Kenya and Morocco use besides local media (radio and television) international trade fairs to promote sales of their products. In addition to radio and television, a poultry and poultry products processing company in Liberia intends using the billboards as media for future sales promotion. Not more than two firms took the trouble to deliver products to buyers. An exceptional product delivery services of a Zambian stockfeed mill, for example, is confined within a radius of 25 kilometres.

About 10 of the surveyed firms made a practice of selling their products at the factory gate, leaving transport to be arranged by their own customers. Several other firms sold directly to distributors or wholesalers, but in no case did they become directly involved in distribution of their own product. Products were for the most part sold at the rate they were produced, with little or no inventory of finished products maintained. Given the low rate of capacity utilization, the volume of production (and thus of sales) seemed to depend more on the availability of the necessary inputs than on marketing considerations.

Over half the firms studied reported having little or no sales force, and few of them had a substantial sales promotion budget. In several cases, responsibility for sales was delegated to a senior manager or accountant who had a range of other responsibilities, and who did not have specific training or aptitude for marketing. Only a few of the firms saw the need to send representatives to exhibitions, trade fairs, or media events. Several firms expressed an intention to make more aggressive marketing efforts in the future, although these generally focused on immediate, practical needs (e.g. a refrigerated van for distribution of poultry or dairy products).

Although export opportunities appear to be promising, most firms surveyed were overwhelmed with the virtual "sellers' market" conditions. The existing and well documented constraints on production in most cases inhibited plans for physical expansion or new marketing strategies required to exploit domestic as well as export market potential.

(i) Exports

None of the firms in the survey had engaged a full-time agent overseas, although five firms reported having some form of continuing relationship with sales representatives overseas. A Zambian firm processing dried vegetables and fruits, for example, maintained links with trading partners in Germany, UK, France , Austria, USA, and other European countries. Most of the other firms, to the extent that they perceived a need for export promotion, relied on the efforts of their respective governments or intergovernmental agencies in ECOWAS, SADCC or PTA member nations.

To a remarkable extent, the proportion of each firm's exports amounted to either all or none of its production. Fifteen or more firms had no significant exports in the previous year, while one, a Liberian firm exported about 25 per cent of its products to Sierra Leone, a neighboring and ECOWAS member state. The remaining firms - two of the three Moroccan firms (fruit processing), as well as one firm each from Liberia (poultry and poultry products), Zambia (packaging bags) and Kenya (ceramic processing) exported at between 24 and 95 per cent of their production. More than seven of the respondent firms had no recent exporting experience nevertheless, but expressed an interest in eventual use of perceived export opportunities.

Their reasons for not not moving sooner into exporting generally related to firm-specific problems or institutional obstacles rather than to reservations in principle.

(j) Product pricing

More 11 of the 23 firms were subject to government price controls, in some cases explicitly using a cost-plus basis for pricing; this was the case for all five Angolan firms, as well as for the nine public sector firms in Kenya, Tanzania and Zambia. The remaining firms, including the three Liberian firms in the public sector, allowed product prices to be determined by market forces. However, in these cases, the firms had a market share of at least 40 per cent, and thus occupied, to a considerable extent, a price-setting position.

In not more than two cases was there mention of insufficient demand or other problems in selling the firm's inventory of finished products; on the contrary, frequent reference was made to a virtual sellers' market. The main problems which did arise with respect to product pricing related to government controls. Several firm representatives maintained that their profits were being squeezed between rising input costs and the relatively inflexible prices set for their productive output. Other firms reported a spread between official and parallel market prices for the firm's output.

(k) Profit record

Only five of the 23 firms reported a net profit after tax in the previous year (1987, in most cases) for which such data was available. Those five firms (three of which were located in Zambia, and one each in Angola and Tanzania) which did report a profit pointed to a rate of profit ranging between 3 and 15 per cent of turnover. It should be kept in mind, however, that this is not necessarily indicative of the branches as a whole, since firms selected for rehabilitation studies were characterized by low or negative profit levels.

(l) Financial structure

Ownership of the 23 firms under review is indicated in figures 7 and 8. The field missions found company accounts in varying degrees of order. The poultry firm in Liberia is not currently operating, and many of its key financial records had reportedly been burnt. By contrast, the INDECO owned firms in Zambia produced comprehensive accounts in good order.

The firms under review told different stories regarding their capitalization. One firm in Liberia was found substantially under-capitalized because the Government had failed to make a promised capital investment. One Portuguese owned firm in Angola has reported a loss every year since 1974, and in the absence of support from its shareholders, has continued to function thanks to a lifeline from its creditors, notably the Central Bank. Access to credit is best in cases where the shareholder is supportive (e.g. INDECO in Zambia), since Liberia, Tanzania and Zambia bank credit is limited, both because of credit ceilings and the call on loanable funds of governments anxious to cover their deficits.

Access to foreign exchange was cited as a constraint in numerous instances. For example, although every firm indicated a need for imported spare parts, only three reported having sufficient access to foreign exchange, generally through government channels.

5.2 Role of government policies

Government of all 6 countries of respondent firms emphasized on policies and strategies towards high-value added production - with export potential, employment creation, particularly the employment of the rural poor and including women in agro-industries. Governments' policies towards agriculture and particularly the support given to farmers and outgrowers in the form of qualified extension services, training and acquisition of required inputs also are important influences on the performance of the manufacturing

firms. The competitiveness of the products of the export-oriented firms (for example, the fruit and vegetables processing firms in Kenya and Morocco) are particularly sensitive to the countrys' exchange rate, import and export policies and tariff rates. Processing of vegetable, fruits and other agricultural commodities requires important local or imported inputs such as oil products and packaging materials whose availability depends on foreign exchange allocations.

Access to foreign exchange was not the only reason cited by firms under survey in favour of a strong link with the government. In Tanzania and Zambia, particularly, such links had the advantage of good access to key decision-makers, although they also brought bureaucratic red tape and interference as well as confusion arising from constant new faces among decision-makers.

CHAPTER 6

MAJOR CONSTRAINTS AND REHABILITATION REQUIREMENTS OF PLANTS: OVERALL FINDINGS

The constraints at the international, national and sectoral levels are applicable to individual firms as well. In addition, the firm must face constraints arising from national regulations, the limitations of a national market (and/or of the international export market), and competition from other firms within the national context.

Lack of raw materials and good price and quality were typical constraints to firms, especially in Kenya, Zambia and Tanzania. Government protective policies and measures, particularly those intended to impose tariffs on manufactured imports encouraged instead, large unofficial imports to the detriment of the home industries. A good case in point is the strong competition facing by Kenya textile firms from the unofficial import of uncarded polyester fibres. Of all the 23 firms surveyed, government bureaucracy were found to have caused delays in making urgently needed financial decisions to rehabilitation of some parastatal factories.

On the basis of identified constraints hindering performamce of the companies, the UNIDO rehabilitation team made specific rehabilitation requirements pertaining to: management and organization; human resources; financial structure; buildings and installations; inputs; product range; plant performance; markets and competitors, and; policies. Basically, the action or initiators of rehabilitation projects will be the firms themselves. Finance and technical assistance for the action/recommendations will rest largely with the UNDP/UNIDO and other development partners.

6.1 Management, organization and human resource development

(a) Constraints

Major problems in terms of general management are absence of sales organizations (largely because firms currently operate in a sellers' market); deficient middle-level management and management information and financial systems; absence of effective co-ordination and links between Board of Directors and management on one side and between management and workers on the other (see table 10). Existing problems of management are compounded by the issues: lack of systematic maintenance procedures (largely the result of the serious shortage of qualified technicians due to the war and the fact that the armed forces had priority in recruiting qualified personnel in Angola and Liberia, for example); lack of spare parts; and raw materials shortages.

Board of Directors of firms, especially parastatals comprise of too many high level persons from Government and various institutions, many without proven experience. It is not only the large size of Board of Directors which hinder functional relationship between Boards and firms, but also the high absentee rate of members at Board meetings and deliberations, because members are too busy to take part in meetings. Besides, red-tapism and other bureaucratic hindrances in most cases obstruct effective liaison between Board of Directors and management of firms (for example, in Tanzania).

Many of the plants studied in the six countries have vacancies in key senior and intermediate management positions which need to be filled as soon as possible, if these plants are to cope effectively with new opportunities and strategies. Difficulties issuing from unreliable supplies of raw materials and parts, have forced directors of managers of firms to make drastic reductions in personnel, especially at levels of management including financial, production, sales, technical and maintenance.

Generally, computerized management information and accounting systems are non-existent or under-developed for serious routine tasks such as accounting, administration, purchases and sales. A private-owned Moroccan firm sends regularly it books to external accountants for keeping.

Table 10: Constraints : Management and organizational

Country, firm	BODs Available	Effective BODs–MNG links	Extra large BODs	High level management: Qualified	High level management: Efficient	Middle level management: deficiencies	Capability of MNG co-ordinate and implement decisions	Computerized MNG and accounting systems
ANGOLA								
Firm A 311					Yes	Yes	Yes	No
Firm B 31*	Yes					Yes	Yes	
Firm C 311	Yes	No				Yes		
Firm D 321	Yes					Yes		
Firm E 311								
KENYA								
Firm A 321	Yes	No	Yes		No	Yes	No	No
Firm B 311	Yes	No		No		Yes	No	No
Firm C 361	Yes	Yes						No
LIBERIA								
Firm A 355	Yes	No			Yes	Yes	Yes	
Firm B 311	Yes	No		No		Yes		No
Firm C 311	Yes			No				
Firm E 311								
MOROCCO								
Firm A 311	Yes	No			Yes	Yes		
Firm B 311								
Firm C 311	Yes			Yes		Yes		
TANZANIA								
Firm A 31:	Yes	No				Yes		
Firm B 311	Yes			Yes				
Firm C 341	Yes	Yes		Yes	Yes			
Firm D 311	Yes		Yes			Yes	No	
ZAMBIA								
Firm A 311	Yes	Yes			Yes	Yes	Yes	
Firm B 351	Yes	Yes				Yes		
Firm C 311					Yes	Yes		
Firm D 311						Yes		No

Notes: "BODs": Board of Directors; "MNG": Management; "Yes" and "No" applicable only to firms for which data and information were available

Although management in Kenyan and Tanzanian firms appears to be technically qualified, there is an absence of real management and planning skills. Since most major companies are parastatals, they have been cushioned from many of the realities of commercial life by protectionism, subsidies and lack of competition. Management training, preferably with a practical orientation and a strong emphasis on financial management, need to be provided at the senior level.

On the job-training for workers is an important investment in human resource development, the ability to maintain and sustain trained workers is directly related to the working environment in the firms. About three firms reported offering on-the-job training schemes for workers (see table 11). The cost factor is the main reason for many firms not investing in on-the-job training schemes. Although, most workers, especially in estate farms of firms comprise manual and seasonal labour, the turnover rates of labour on the farms and in the companies as a whole are generally high. Unattractive salary structure, general low worker motivation, occupational hazards and poor health and sanitary conditions account for the high worker turnover rate and low productivity in the firms.

(b) Rehabilitaion requirements

The UNIDO rehabilitation team to the six countries made concrete rehabilitation proposals to help solve the managerial, organizational and human resource development problems of the companies surveyed. Table 12 summarizes the rehabilitation requirements. These requirements included:

- the appointment of well-qualified personnel to fill vacant and crucial posts in specific managerial levels (for example, financial, sale, production etc.);
- the installation of micro-computer system to improve management information systems with regards to administration, accounting, sales and purchasing;
- the assessment of qualifications of management staff for appropriate adjustment, redeployment and possible dismissals;
- training and up-grading of management staff;
- technical assistance and training for technical personnel;
- the re-organization of Board of Directors of firms to include into their membership people with industry and business experience;
- the improvement of industrial health and welfare services (cafeteria, shops, and facilities for cultural and social activities), and;
- the integration of women in production process.

It appears the most important rehabilitation requirement which applies to more than half of the firms surveyed, especially those in Angola, Morocco, Tanzania and Zimbabwe is the creation or employment of personnel to fill critical managerial posts such as qualified accountants, production and sales personnel. Other recommendations which would contribute to improvement of managerial efficiency are the installation of computer systems for routine work and the assessment of qualifications of management staff in order to streamline management, make appropriate adjustments and where need be relocate or dismiss redundant management personnel. Also, systematic on-the-job training of technical personnel and the use of bilateral and multilateral technical assistance were recommendations for rehabilitation, especially for firms in Angola and Kenya.

Table 11: Constraints : Human resource development

Country, firm	On-the-job training schemes	Lack of skilled labour	Less work motivation	High labour turnover	Working environment and conditions			
					Attractive salary structure	Lack of incentives	Occupational hazards	Poor health/ sanitary conditions
ANGOLA								
Firm A 311		Yes						
Firm B 311								
Firm C 311								
Firm D 321		Yes		Yes				
Firm E 311								
KENYA								
Firm A 321		Yes		Yes			Yes	Yes
Firm B 311	No	Yes		Yes	No			
Firm C 361	No							
LIBERIA								
Firm A 355								
Firm B 311			Yes			Yes		
Firm C 311								
Firm E 311								
MOROCCO								
Firm A 311								
Firm B 311								
Firm C 311								
TANZANIA								
Firm A 311		Yes	Yes		No	Yes		
Firm B 311								
Firm C 341								
Firm D 311				Yes				
ZAMBIA								
Firm A 311								
Firm B 351								
Firm C 311							Yes	Yes
Firm D 311							Yes	

Note: "Yes" and "No" applicable only to firms for which data and information were available.

Table 12: Rehabilitation requirements: Management and organization

Country, firm	Re-organization of BODs (include people with industry/business experience)	Fill existing vacant managerial posts	Computerization of information, financial, sales etc., management systems	Assessment of management staff qualifications for appropriate adjustment and dismissals	Management staff training and upgrading	Technical assistance/ training for technical personnel	Improvement of industrial health and welfare services	Integration of women in production process
ANGOLA								
Firm A 311		X	X					
Firm B 311		X	X	X	X			
Firm C 311		X	X					
Firm D 321		X	X		X	X		
Firm E 311						X		
KENYA								
Firm A 321	X		X	X		X	X	X
Firm B 311	X		X	X		X	X	
Firm C 361		X	X	X				
LIBERIA								
Firm A 355	X		X	X			X	
Firm B 311		X		X				
Firm C 311		X	X					
Firm E 311								
MOROCCO								
Firm A 311		X						
Firm B 311		X						
Firm C 311		X	X					
TANZANIA								
Firm A 311		X	X		X			
Firm B 311		X						
Firm C 341		X		X				
Firm D 311				X				
ZAMBIA								
Firm A 311		X	X					
Firm B 351		X	X		X			
Firm C 311		X	X					
Firm D 311		X	X					

Note: "X" represents applicable only to firms for which data and information were available.

6.2 Financial structure

(a) Constraints

Poor record-keeping made it impossible to assess plant performance, including basic data on purchases and sales. However, the financial management of the majority of firms surveyed lack qualified accountants required to sort out accounting problems, not least to make evaluation of operations and assets. Only a few, the good financially managed ones in Angola and Morocco for example, performed well to book yearly profits. On the contrary, the majority of firms, especially the parastatals incurred heavy losses annually (see table 13).

More than half of the firms surveyed lack operating capital resources, operated at exceptionally high costs and burdened by high debt liabilities. Inability of firms to honour debt commitments to creditors obstructed free flow of fresh capital (loans and credits) critically needed for operations of the firms. Financial resource situation of firms, especially Moroccan could be increasingly improved if these firms could device effective debt collecting systems to retrieve large sums of credit owed by customers.

A crucial and common financial problem which seems to affect the operation and the very life of all firms survey is lack foreign exchange allocations. Because Governments' policy is essentially that of accumulation and conservation of scarce foreign exchange, few foreign exchange allocations are made available for importation of essential raw materials, intermediate and capital inputs such as spare parts and machinery. All plants studied suffer greatly from the lack of spares and associated maintenance. Foreign exchange need to be made available to enable a stock of essential spare parts to be built up and to purchase other critically need spares and replacement parts.

(b) Rehabilitation requirement

A general recommendation for better financial management is that of employment of high qualified financial managers and the installation of computerized system in almost all firms to help ease the burden of financial management and make cost-accounting analysis more effective. For Moroccan firms, large outstanding customer debts is a major financial constraint. A solution to this constraint is the recommendation that the firms device more effective debt collection systems. Another set of recommendations called for overall restructuring of the financial system of the companies. In the case of Kenyan companies, financial restructuring involved possible elimination of firms debts by outright sale of firms to new owners. A long-term perhaps, the better solution to the financial problems of some of the firms (Kenyan) is privatization.

6.3 Physical plant (buildings and installations)

(a) Constraints

At the physical plant level, the following constraints were identified: old and obsolete machinery and equipment; lack of machinery and equipment, spare and replacement parts; mechanical breakdown and lack of repair and maintenance; technical bottlenecks in production process/flowline; inadequate or lack of quality control facilities; inadequate or lack of laboratory facilities; poor hygiene and sanitary conditions in process room and factory premises, and; lack of transport and storage facilities (see table 14).

One the whole, conditions of factory building and other physical structures appear sound. But for a few firms (five in number) for which information is available, the structural features of plants were not in satisfactory condition. For instance, the building and equipment of a Liberia firm were heavily damaged or destroyed during the recent civil strife. Also, a Tanzanian firm housed in a 36-years-old factory premises lacks proper maintenance. As a result, the floor tiles in the processing room are completely worn out and the corrugated iron roofing sheets seriously corroded exposing equipments to rainwater leakage.

Table 13: Financial constraints of firms

Country, firm	Poor financial management	Shortage of foreign exchange	Lack of working capital	Lack of credit and loans	High debt liabilities	Operational losses
ANGOLA						
Firm A 311						
Firm B 311	X	X		X		X
Firm C 311		X				X
Firm D 321		X				
Firm E 311						
KENYA						X
Firm A 321					X	X
Firm B 311		X		X		X
Firm C 361		X	X	X	X	
LIBERIA						
Firm A 355	X	X	X			X
Firm B 311	X		X		X	
Firm C 311		X	X		X	
Firm E 311						
MOROCCO						
Firm A 311						X
Firm B 311			X		X	
Firm C 311	X		X			
TANZANIA						
Firm A 311	X	X	X			
Firm B 311			X		X	X
Firm C 341		X	X			
Firm D 311	X					X
ZAMBIA						
Firm A 311			X			
Firm B 351			X		X	
Firm C 311		X				
Firm D 311			X			X

Note: "X" represents applicable only to firms for which data and information were available.

Table 14: Constraints : Physical structure of plants

Country, firm	Old and obsolete machinery/ equipment	Building and sapce de- ficiencies	Inoperative machinery/ equipment	Lack of spare parts	Unorganized production process/flow- line/stages	Lack of main- tenance	lack of quality- control and laboratory facilities	Poor hygienic/ sanitary standard	Lack of trans- portation/ storage facilities
ANGOLA									
Firm A 311									
Firm B 311		X	X	X		X		X	
Firm C 311		X	X	X		X		X	
Firm D 321									
Firm E 311									
KENYA									
Firm A 321		X		X	X		X		
Firm B 311	X	X	X	X	X	X		X	
Firm C 361		X	X	X		X	X		X
LIBERIA									
Firm A 355						X	X		X
Firm B 311		X	X	X	X	X			
Firm C 311		X		X		X			
Firm E 311									X
MOROCCO									
Firm A 311		X		X	X			X	X
Firm B 311		X		X	X				X
Firm C 311								X	
TANZANIA									
Firm A 311	X	X		X		X	X	X	X
Firm B 311	X	X		X	X	X	X	X	X
Firm C 341	X					X	X		
Firm D 311		X	X	X			X	X	
ZAMBIA									
Firm A 311	X				X		X		
Firm B 351		X		X					
Firm C 311	X				X	X	X		X
Firm D 311	X	X		X		X	X		

Note: "X" represents applicable only to firms for which data and information were available.

For several firms, Tanzanian in particular, there is an absence of in-house laboratory facilities, quality-control equipment and qualified quality-control personnel. Existing in-house quality-control practice merely consists of visual observation of intermediate or finished products. Quality-control programmes need to be adhered to through the routine monitoring and controlling of raw materials and intermediate and final products. Specialist laboratories need to be used where they offer pertinent analytical services.

The problem of lack of lack of maintenance of plant equipment and machinery is worsened by the general problem of lack of spare and replacement parts. When replacement parts are not available plants, especially Zambian resort to the practice of equipment "cannibalism". Moreover, majority of firms do not have maintenance workshops for the fabrication and modification/improvisation of parts. Repairs of plant equipments are found to be made in neighboring local workshops.

Mechanical breakdowns and bottlenecks in production process/flowline were reported in a large number of firms (in eight firms). Deficiencies in process flowline are due mainly to faulty design, the use of inappropriate technology and non-compliance to operation guidelines. Plant hygiene was found to be poor, especially in Tanzanian and Zambian firms.

Insufficient attention was paid to industrial health and safety, and to waste treatment and disposal. Liquid effluent, mainly wash water from cleaning of raw materials, process equipment, process flow, walls and employees are discharged without prior treatment into sewerage systems. Recycling of wastes and by-products including gas and steam for further processing appear rare in firms surveyed. There is a general low standard of building maintenance practice; walls, floors and roofs were often very dirty and dusty. Health and sanitary conditions, especially in Tanzanian firms are poor. There is the need for a health and sanitation survey to establish a satisfactory code of practice.

Problems of transport and storage (especially, in-house of food processing plants) of raw materials and products were mostly reported by Liberian, Moroccan and Tanzanian firms; breakdowns of vehicles, lack of or defective refrigeration and cooling systems and electric power cuts were the main reasons given.

(b) Rehabilitation requirements

The most important rehabilitation requirement common to all firms in six countries surveyed is the procurement or where possible in-house production of simple spare parts. Other general recommendations for rehabilitation of the firms include: the design of technical assistance programmes to help train technical and maintenance personnel; the replacement of old, obsolete and inoperative machinery by new ones (in order to eliminate the constraint on production process); the establishment of in-house repair and maintenence workshops; the provision of in-house laboratory equipments and the adherence to quality-control programme, and; the adherance to safety and health programmes for workers.

Shortage of spare parts is a constant and common problem of all firms surveyed. Neither the firms nor the countries of study have build up sufficient domestic capacity for spare parts production. In response to the need to build up domestic capacity for spare parts, it was recommended that an in-depth investigation, detailed classification of spare parts production, supply and needs of the various firms and countries are made, preferrably with the help of UNIDO. The suggestion that domestic production of spare parts be encouraged and protected by the imposition of high import duties on competing imports seem not only appropriate for Zambia and other SADCC member countries, but for PTA and MARIUN member countries as well.

Investigation into the possibility of establishing a Spare Parts Agency (SPA) is a recommendation of significant importance to the SADCC, PTA and MARIUN member countries as a whole. While operating on purely profit-making lines, the proposed SPA would also perform procurement and distribution services to industrial customers.

6.4 Supply of inputs

(a) Constraints

Raw material input shortages and lack of equipment and machinery spare parts, while causing high prices also limit the level of utilization in the firms surveyed (see table 15). Policies to increase domestic production of important raw materials (e.g. soybeans for animal feed, raffia for bags and cotton for textiles) need to be vigorously pursued. Wherever necessary and feasible (given the small scale of demand), local production of spare parts could be encouraged, as for example through a selective tariff rate.

Other constraints related to supply of inputs include: unreliable supply of raw materials; poor quality of raw materials; elctricity and power interruptions; inadequate water supply; lack of packaging materials, and; high dependence on imported inputs.

Almost all plants surveyed suffered from a shortage of locally produced or imported inputs because of severe transport difficulties, limited local production, seasonal variations in supply and lack of foreign exchange. All Tanzanian firms were in need of additional vehicles for ferrying raw materials and finished goods. An important option in the transportation problem and the issue of improving the supply of inputs will be the establishment of nucleus farm estates or contract farmer arrangements within a reasonable radius of the plants.

Many Tanzanian firms and a Moroccan firm suffer from specific supply problems the resolution of which is dependent on progress in other areas, that is the rehabilitation and development of the packaging industry. Expansion in the milk and fruit and vegetable processing plants is partly dependent on the products of the packaging industry such as can, glass, bottles and carton. Similarly, the Tanzanian dairy firm needs a significant increase in availability of raw milk, and the stockfeed plants in Angola, Tanzania and Zambia ed animal proteins that can only be supplied by better-operating meat processing or fishmeal plants.

Spoilage can be reduced through the construction of cool storage facilities at the major fruit producing and collecting points and quality-level of raw materials can be safequarded and improved by better laboratory testing and storage. Interuptions in electric power supply (for example, in Morocco and Tanzania) are major obstacles to higher levels of plant utilization. Due to power cuts, production process is interrupted and equipments and machinery have to lie idle for hours or days.

(b) Rehabilitation requirements

All plants surveyed suffered from shortage of domestic or imported inputs, because of severe transport difficulties, limited local production, seasonal variations in raw material supply and shortage of foreign exchange. As remedy for bootlenecks in supply of inputs to the firms the following general recommendations were made:

- the identification of domestic resource and the exploration of the scope for increasing supplies of inputs;
- the regeneration of the agricultural sector, rehabilitation and maintenence programme for the transportation and marketing systems, especially in Zambia, Liberia, Tanzania and Kenya;
- improvement of storage and delivery systems - facilities for storage would minimize variations in supply of inputs (including raw materials) and allow time for testing of the stockpiled material prior to use in production;
- the rationalization of arrangements for the importation of raw materials and spare parts - they have to be ordered well in advance, to take into consideration the time required for import procedures and port clearance.

Table 15: Constraints of input supply

Country, firm	Shortages of raw materials	Unreliable raw material supply	Poor quality of raw materials	Lack of spare and replace-ment parts	Electricity/ power interruptions	Inadequate water supply	Inadequate packaging materials	High import depence
ANGOLA								
Firm A 311	X							X
Firm B 311	X		X					X
Firm C 311	X			X				
Firm D 321								X
Firm E 311								
KENYA								
Firm A 321	X	X		X				X
Firm B 311	X	X	X	X				
Firm C 361	X		X	X	X			X
LIBERIA								
Firm A 355		X			X			
Firm B 311	X	X						
Firm C 311	X	X						
Firm E 311								
MOROCCO								
Firm A 311		X			X	X		
Firm B 311								X
Firm C 311							X	X
TANZANIA								
Firm A 311	X	X					X	
Firm B 311	X	X						
Firm C 341					X	X	X	
Firm D 311	X	X			X		X	
ZAMBIA								
Firm A 311	X							X
Firm B 351	X							X
Firm C 311	X							
Firm D 311	X	X	X	X				

Note: "X" represents applicable only to firms for which data and information were available.

- the liberalization of foreign exchange availability and distribution to facilitate the financing of essential material inputs, and;

- the upgrading of electricity and water (for example, in Morocco) supply systems.

6.5 Cost and price structure

(a) Constraints

In general, markets for finished goods in 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 in the manufacturing sector. For example, prices for products on the Tanzanian market are either directly controlled under Government policy or are indirectly controlled by extremely price-sensitive markets. The lag between increasing input prices and output price adjustments in the parastatals sharply reduces their profitability. Private companies not subject to price controls also suffer high input prices and have to control output prices in a price-sensitive market.

Rising input prices and controlled output prices have affected the financial structure and liquidity of many companies, 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.

(b) Rehabilitation requirements

The rehabilitation requirements relating to the constraints of cost and price structure of firms rely very much on government policies. The recommendations include:

- the monitoring of world market price trends of products (for example, sawnwood in Liberia) and the competition from neighbouring African suppliers of similar type of products;

- the establishment of monitoring system relating to costs and output;

- the prevailing price control system , particularly in Angola, Tanzania and Zambia need to be reviewed, and greater flexibility introduced. Some syncronization between price output determination and changes in the price of related inputs is required, and institutional mechanism could be introduced to reduce the gap between the official and parallel market prices;

- a careful minitoring of effects of exchange rate adjustments on local price levels, such effects would obviously create problems for the the manufacturing companies in terms of the price at they have to pay for foreign exchange. There could also be a reduced demand for their products, because of subsequent increases in the prices of the finished products;

- the need for an agricultural policy geared towards increased domestic production, with a view to enhancing the availability of local raw materials and reducing imports;

- the modification of arrangements for the allocation of foreign exchange under a system which would distinguish between foreign exchange allocated to companies for raw materials, finished goods, and machinery and spare parts, and;

- the development of differentiated tariff system for spare parts, with rates higher on competing imports and zero on non-competing imports.

6.6 Marketing

Majority of firms surveyed, especially Tanzania had no effective sales organization, largely because they operate in a sellers' market. Furthermore, many companies do not undertake to distribute their finished products, and sell generally "at the factory gate", on a cash only basis. Due to transportation problems, major markets for most companies remain in the town or city where the plant operates; few companies have intensive well-developed local and export markets.

Improvements, for example in Tanzania's road network and the emergence of a strong private sector will generate greater competition. Companies will therefore need to adjust their product prices, quality and packaging to survive. Emphasis need to be given to developing an appropriate export market mix, once domestic demand is largely met. Sales promotion efforts will then become imperative.

As greater competitiveness and increased output potential develop, there will be a need for more market/product research, and streamlining of the product mix. Development of a sales/marketing department must accompany progress in other areas.

(a) Rehabilitation requirements

In order to develop an intensive and viable market system to serve domestic and export markets, the UNIDO rehabilitation team made specific recommendations. They include the following:

- the conduct or regular market (domestic and export) surveys to ascertain new markets;
- engagement of firms in export trade (where potential outlet exists) with the help of government missions abroad and expert and technical advice from international bodies such as the International Trade Centre (ITC);
- creation of efficient storage, marketing and distribution systems, and training of competent personnel in related fields;
- organization of sales network in rural areas, the purchase of raw materials from rural areas, and the organization of external sales agencies and distribution centres etc.

6.7 Performance and Objectives

At the level of the firm, there tends to be a poor definition of performance indicators and targets. This reflects several factors, including management deficiencies, a generally low level of competition and a prevalent feeling among some parastatals that the government will underwrite losses. However, the definition of clear and soundly based targets in an integral part of rehabilitation.

CHAPTER 7

CONCLUSIONS AND SUGGESTIONS

7.1 Tentative conclusions from studies conducted

(a) International level

The macro-economic and political constraints at the international level, unlike those at the national, sectoral and firm level, are generally not subject to influence by African governments, except to a limited extent through collective action in global, regional and sub-regional institutions. Although little can be done to tackle many of the more serious constraints at the international level, the institutions at the regional and sub-regional level should nevertheless be strengthened in order to enable at least some of the constraints on their respective development programmes to be addressed.

(b) National level

The national level is of most direct concern, for several reasons. Only national level institutions can replicate changes and assure an environment in which firms can successfully implement changes. Institutions at the national government level are called upon to apply recommendations made by regional or global institutions. Only institutions established or authorized by the national government can set sector-specific policies or, more typically, decide upon administrative questions specifically affecting individual firms, but following broad policy outlines applicable equally to other sectors.

Even a brief survey of industrial policy in Africa points to the need for the restructuring of institutions, as there are numerous instances where they have not accomplished their intended purpose. This is notably the case in each of the five national settings in which the present study of agro-industrial enterprises has been carried out. Moreover, in the countries studied, major institutional changes are being carried out, or, in the case of Angola and Liberia, are at least being seriously considered, thus indicating at least an openness to change.

One specific type of recommendation that has been made by many outside parties as well as by many governments concerned, relates to decentralization and privatization, which are seen as likely to yield better long-term results in agricultural and industrial development. The experience of individual countries shows, however, that successful implementation of such measures requires that the particular circumstances and institutional history of each country be taken into account, and that the pace of change not be unduly hastened by external pressures and inducements. Privatization may in fact represent a reorientation rather than an overall lessening of the scope of governmental responsibilities; a lessening of direct control over parastatals may be accompanied by assumption of a broader range of responsibilities with regard to promotion and regulation of private enterprises. The precise scope and nature of government intervention should be determined in response to pragmatic concerns and carefully evaluated results, rather than by preconceived orientations toward more or less government involvement. Privatization is an African context is not synonymous with deregulation.

(c) Sectoral level

Agro-industry is the most important industrial subsector in virtually all African countries, and therefore represents a major consideration in their development planning. Agro-industry is closely linked to the agricultural sector, in that it can perform well only if regular, balanced growth of the agricultural sector, the source of its raw materials, is assured. Agro-industrial progress is also dependent upon development of the transportation infrastructure, and of a sufficiently large market, which often involves the creation and expansion of export channels.

Policies specific to the various branches of agro-industry generally involve increased reliance on

domestic inputs and spare parts, improved and more regular supply of the necessary agricultural inputs, attention to present or future marketing challenges, and diversification of production, which is likely to involve incentives for non-traditional exports.

(d) Enterprise level

There is a wide range of considerations to be addressed at this level, including general policies toward stimulating economic growth, tariff and tax policies, foreign investment codes, specific policies affecting agro-industrial branches, policies affecting the availability of human and material resources, and policies toward the environment and infrastructure.

Although it is vitally important that constraints at the international, national and sectoral levels be addressed, it is also clear that macro-economic policies must be accompanied by efforts at the plant level.

One purpose of applying this model is to ensure that all the relevant variables are included. While it may be correct to state that "Africa's crisis cannot be satisfactorily explained as the result of an adverse international economic climate, low commodity prices, or dwindling foreign assistance" neither can purely national or local constraints explain the relatively disappointing results.

7.2 Suggestions for future research and action

The industrial rehabilitation missions and surveys, have provided clear evidence that the top-down approach used in the present series of studies is a successful means of identifying the key issues that affect the operation of plants and of formulating broad-based industrial rehabilitation policies. This approach also ensures that enterprise-level rehabilitation programmes are compatible and integrated into macro-level industrial policy. The surveys also provide clear recommendations for short- and long-term rehabilitation measures, including modifications to improve the institutional and economic environment at each of the various levels, as well as clearly defined projects at the plant level.

UNIDO's rehabilitation studies are to serve as the basis for a series of round-table meetings on rehabilitation issues and projects. For example, the first of such meeting, in Lusaka, provided the opportunity for representatives of the Zambian Government, the four firms which were studied, UNIDO and other interested parties to review the findings and recommendations of the report in order to determine appropriate follow-up action in the form of technical co-operation and assistance.

The positive response to the rehabilitation studies and their follow-up on the part of African governments, international donors and private investors confirms the need to continue and expand the programme. The next phase may involve an increase in the number of countries studied. It may also widen the scope to include industries other than those related to agriculture; although agro-related industries will no doubt continue to play a key role in virtually every African country, industries based on wood products or textiles, for example, also have an important role to play. The analysis of agro-industry could also be extended to include a closer examination of the linkage between agriculture and industry.

Following these initial surveys, an important element of UNIDO's rehabilitation programme is to mobilize and concentrate national and international resources, and efforts to rehabilitate the plants. Intensified and focused international co-operation could generate a multiplier effect in industry and agriculture, thereby endorsing efforts to be undertaken by national entities.

For the programme to succeed, co-operation and assistance on the part of the international community is essential. Most industrial rehabilitation projects require foreign technical and financial support, partly for the acquisition of equipment and spare parts. Besides international financial assistance, African countries require technical and managerial expertise to assist in selecting and procuring equipment, and monitoring plant rehabilitation.

Regional co-operation will also have an important role to play in regenerating African manufacturing. Given the small domestic markets and the difficulties in penetrating overseas markets, regional markets must be explored by growing industries. This implies measures such as harmonization of trade regulations, co-operation in improving the transport infrastructure, and organization of regional trade fairs. Regional co-ordination of rehabilitation and investment would also save resources in scarce supply. The shortage of qualified manpower, both at the enterprise level and in industrial development organizations, could in part be solved by pooling available planning resources and creating regional training institutes for higher-level manpower. Finally, co-operation among African countries would also strengthen their position vis-à-vis overseas suppliers and in overseas markets.

In accordance with its mandate, the REG team will concentrate more on analyses at the regional, sub-regional and country levels, and carry out lower level analysis primarily to assess the implications of the suggested plant rehabilitations for policy and institutional changes. More attention is therefore paid to such crucial issues as determining linkages with other sectors, especially agriculture, and establishing a more accurate picture of industrial performance, problems and potential at the branch level. Studies of additional countries will be needed in order to obtain a more complete data base.

The more detailed plant-level rehabilitation analysis and implementation work remains the responsibility of the specialized units within UNIDO, with great care taken that the work of its various units is co-ordinated. The objective is to ensure that all essential elements of this approach are applied, so as to contribute to the successful regeneration and rehabilitation of agro-industry.

The rehabilitation studies serve as a first step in the long process toward regeneration of African manufacturing. Full feasibility studies must be conducted as a follow-up to provide effective guidelines for subsequent implementation. In the long term, the ultimate goal of UNIDO's rehabilitation programme - technical assistance in management and skill training etc., - is to provide for a lasting capacity in each country's overall economic framework to achieve its objectives for industrial and economic recovery.

ANNEX A

BIBLIOGRAPHY

1. UNIDO reports on rehabilitation of industry in Africa

The work of the UNIDO Regional and Country Studies branch during the 1988/1989 biennium is reflected in two series of publications: a set of "studies on the rehabilitation of African industry", for general distribution, and a set of "special reports on industrial rehabilitation", which are necessarily for limited distribution.

The series of studies on the rehabilitation of African industry include a set of "country briefs", together with a statistical companion volume, the highlights of individual country studies, and publications relating to international conferences.

The six special reports which have been produced to date constitute the full reports from the respective field missions. As these surveys contain confidential plant-level information, their distribution is restricted. The salient parts of the full country surveys are in each case contained in the respective "highlights" issued for each country.

(a) Studies on the rehabilitation of African industry

1. Regenerating African manufacturing industry: approach and programme. (PPD.101, 29 December 1988).

2. Regenerating African manufacturing industry: country briefs. (PPD.97, 17/November 1988).

3. Economic indicators of African development. (PPD.94, 28 October 1988).

4. The agro-based industries in Zambia: key characteristics and rehabilitation issues. (PPD.102, 29 December 1988).

5. The agro-based industries in Angola: key characteristics and rehabilitation issues. (PPD.103, 29 December 1988).

6. Report of the Round-Table Meeting on Industrial Rehabilitation, Lusaka, Zambia, 8-10 March 1989. (PPD.120, 8 June 1989).

7. The agro-based industries in Liberia: key characteristics and rehabilitation issues. (PPD.127, 17 July 1989).

8. The agro-based industries in Tanzania: key characteristics and rehabilitation issues. (PPD.125, 11 July 1989).

9. The agro-based industries in Morocco: key characteristics and rehabilitation issues. (PPD.151, 12 March 1990).

(b) Special reports on industrial rehabilitation

1. The regeneration of Zambian manufacturing industry with emphasis on agro-based industries. (PPD/R.19, 14 October 1988).

2. The regeneration of Angolan manufacturing industry with emphasis on agro-based industries. (PPD/R.21, 1 December 1988).

3. The regeneration of Liberian manufacturing industry with emphasis on agro-based industries. (PPD/R.23, 25 May 1989).

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