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# REGENERATING AFRICAN MANUFACTURING INDUSTRY: APPROACH AND PROGRAMME*

Studies on the rehabilitation of African industry

No. 1

Prepared by the

Regional and Country Studies Branch

Industrial Policy and Perspectives Division



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# Preface

As part of the Industrial Development Decade for Africa, UNIDO is paying increasing attention to the problem of industrial rehabilitation. Through its integrated, multidisciplinary rehabilitation programme, UNIDO offers support: (i) at the macro-industrial policy level in order to remove obstacles to industrial development; (ii) at the sub-sectoral level that encompasses similar and interrelated enterprises; and (iii) at the level of a specific enterprise and in productive plants in order to cope with critical bottlenecks.

Under this programme, the Regional and Country Studies Branch (REG) is conducting diagnostic studies to determine the major problems of African manufacturing and the potential for regenerating the sector. The aim is to provide a basis for policies and measures that may lead to overall improvements, and to identify individual plants for rehabilitation assistance.

The present publication serves a dual purpose:

- it outlines the methodology used by REG in its work on regeneration and rehabilitation issues;

- it describes the programme of work on these issues.

The document is the first in a series of publications on regeneration and rehabilitation.

## 1. The problem

Compared to other continents or developing countries, Africa is in dire straits. Of the major developing country regions, sub-Saharan Africa has the lowest provision of basic needs, the highest population growth, and the lowest efficiency of investment. Per capita GNP growth rates continue to stagnate or to decline in most countries. Most per capita incomes are desperately low - less than $300 in Zaire, Mali, Ethiopia, Mozambique, and Malawi - and in many cases are lower than they were 20 years ago. The per capita income of the region as a whole today is lower than in 1970. Of the 33 countries listed in UNIDO's Industry and Development - Global Report 1988/89 with a per capita income of less than $400, more than two-thirds are African.

The agricultural sector, the major source of livelihood in the great majority of African countries, has not been able to provide the fast-growing populations with essential food supplies. For most countries, agricultural products are also the principal source of foreign exchange, and export earnings have dropped dramatically.

The picture is equally gloomy for the manufacturing sector. Until the early 1980s, growth rates in African manufacturing generally resembled those of other developing countries. Since then, however, industrial performance in Africa as a whole has sharply deteriorated relative to other developing regions. If capacity utilization is taken as an indicator, only a few countries, such as Kenya, had a utilization rate of 70 per cent or more (registered enterprises). Utilization rates well below 50 per cent are not uncommon. In the mid-1980s, for example, the rate was 33 per cent in Sudan (private setor), 36 per cent in Liberia, 25 per cent in Tanzania, and between 30 and 50 per cent in Zambia (selected major industries).

An upturn can be witnessed from 1985 onwards. Growth in sub-Saharan Africa, measured in MVA terms, jumped from -0.8 per cent in 1984 to 4.1 per cent in 1985, and has remained at that level; forecasts for 1988 even show a 4.5 per cent growth rate. As growth in individual North African countries was even stronger, it must be assumed that growth rate for all Africa would even be higher.

It is doubtful whether this upward trend will continue, for two reasons. Most African industries are heavily dependent on domestic markets and will remain so in the short and medium term. Overall economic growth has been sluggish, and therefore domestic markets have expanded very little. The sluggish overall growth is related to the heavy dependence on raw material exports of most countries, and these export earnings show few signs of increasing. Meanwhile, prices of imports have continued rising, so that Africa's terms of trade have fallen disastrously during the 1980s. In addition to the fall in commodity prices, the introduction of substitute and synthetic materials has depressed the demand for Africa's staple products.

At the same time, debt has accumulated - much of it incurred to meet the fall in export receipts. The unfavourable external economic environment, particularly the slump of commodity prices in world markets, coupled with a large external debt, continues to have strong negative effects. Serious balance-of-payments problems are common in sub-Saharan Africa. Moreover, capital flows have been drying up as investors, donors and international financial organizations lost confidence in African economies. The resulting shortage of foreign exchange has prevented the import of raw materials and essential equipment and spare parts for industry. The lack of such imports has led to the widespread breakdowns of machinery and low rates of capacity utilization.

These macro-economic problems aggravate the many problems at the level of individual industries. During the early stages of industrialization, projects were often based on unrealistic assumptions of domestic market demand growth, availability of local raw material, export prospects and the development of supportive national infrastructure. In many instances investments have also been made on the basis of project concepts that were technologically too complex to be sustained over the long-term without significant foreign assistance. Therefore, many infant industries have tended to remain weak and financially vulnerable. In many projects, insufficient support in the form of training and other essential auxilliary inputs tended to drastically affect productivity. Specific pricing, trade and industrial policies have in many cases distorted product markets and production conditions. In other cases, especially in the food processing industry, expected raw material supplies to manufacturing proved to be insufficient, irregular or even non-existent. In this connection, the perpetual problems of the agricultural sector constitute a particularly serious obstacle to renewed industrial growth.

Given the many constraints on its development, it comes as no surprise that structural change in African industry has been slow. Although a shift away from the dominant subsector - food products - is discernible in many countries, the share of industries that are strong growers elswhere in the developing economies - electronics, garments, transport equipment - has on the whole remained very modest. Major capital goods or export-oriented manufacturing industries are uncommon in Africa. Opportunities to diversify and expand industries through the exploitation of regional markets and through regional co-operation have only been marginally explored so far.

The manufacturing sector will be of crucial importance in the recovery and renewed growth of the African economies. Even if in many countries the agricultural sector will have to take the lead in the recovery process, industry has a vital role to play. It will:

- help to provide for the needs of the rapidly growing populations (Africa's population is the world's fastest growing);

- contribute to lowering the very high unemployment levels;

- provide inputs and equipment to other economic sectors, thus reducing the need for imports;

- contribute to the diversification of African exports away from raw materials, creating new sources of foreign exchange.

Under the present circumstances, it is highly unlikely that the recovery and expansion of the African manufacturing industry will attract much new investment, even if the investment climate would radically improve during the next few years. The regeneration of the sector will, to a large extent depend on the rehabiltiaton of viable existing manufacturing enterprises.

## 2. An approach to rehabilitation

Manufacturing industries which overcome or master specific internal problems may not escape the obstacles imposed by the overall economic environments and by the Government's fiscal, monetary and economic policies. It is therefore very important to include such problems in an assessment of rehabilitation issues. It is for that reason that a "top-down" approach to rehabilitation and regeneration is adopted here. This approach starts with an examination of the macro-economic level, descends through the sector, sub-sector and branch levels, and finally arrives at the plant level.

Until now, most rehabilitation work in Africa has not been systematic or comprehensive. Rather, it has either been viewed as the treatment of a plant's technical problems - without an analysis of the real causes or their ramifications - or as a macro-economic issue only. In the first case, technical assistance activities have often been carried out in isolation, separated from analyses of financial requirements, market possibilities, or the availability of raw materials and intermediate outputs. This approach has frequently resulted in rehabilitation projects and government requests that were too narrowly focused. Often, corresponding international co-operation has been on the basis of such narrowly-defined project concepts. Thus, there is the serious risk of only "patching a leak", with the possibility of another leak developing elsewhere.

The concept of industrial rehabilitation should therefore be broadened and interpreted as securing optimal use of existing capacities and resources for future, general industrial growth - that is, to regenerate the African industrial development process. The true challenge, then, is to identify which enterprises are best suited for rehabilitation, that is, where scarce foreign exchange and other investible resources will be most efficiently used to upgrade production and company performance with the largest possible effect on overall growth.

In particular cases "industrial rehabilitation" may actually lead to recommendations for plant closures. In such cases it is recognized that there are important social and political implications to be considered; *ex ante*, however, closure cannot be excluded even then. In such cases the established meaning of the concept of rehabilitation may block such actions because it restricts the view of decision-makers to the industrial structure as it exists. The concept of regeneration as a wider and more forward-looking concept will help all parties concerned to understand that closure may be a necessary part of an attempt to establish an industrial structure with better prospects for sustained growth.

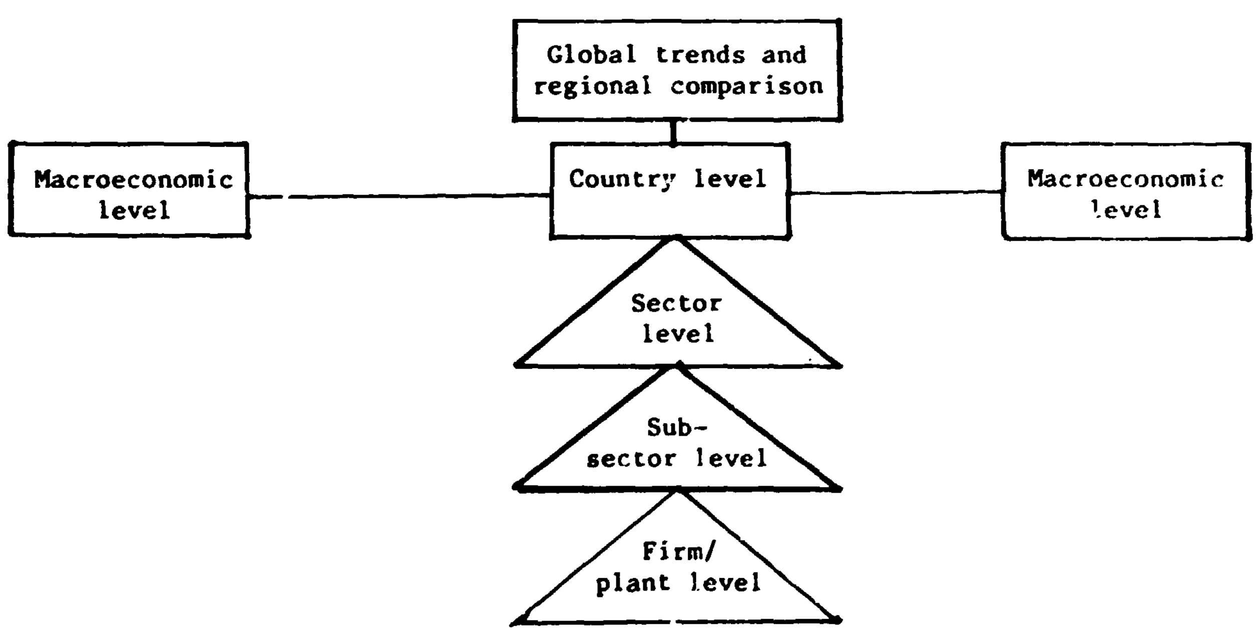
The second task is to combine the plant rehabilitation process with a restructuring programme of the industrial sector as a whole to ensure growth dynamism, domestic economic integration, and/or the provision of support industries and services. Such a programme will entail investment in new capacities in industry, infrastructure, services and primary commodity production. The third task should be the adjustment of the policy and administrative framework to better support the domestic and international efforts towards the industrial regeneration objective.

Rehabilitation is not just technical rehabilitation, but a process that has technical, technological, organizational and managerial as well as economic, financial, marketing, design, and engineering aspects. It should be understood that restructuring, both at a subsector level and at the level of a company or industrial plant, takes into account the economic and financial aspects, as well as the general and technical management structure, product technology and range, and domestic and foreign markets. Therefore human, physical and financial resources should be concentrated on a few manageable projects or markets, and attention should be focussed on technological development and market trends.

In this connection that the issue of regional and subregional co-operation appears vital. In many instances rehabilitation of industries would presuppose enlargement of the narrow domestic market, joint raw material supplies by several neighbouring countries or other forms of common activities. Appropriately designed rehabilitation porgrammes therefore need to be based on an assessment of possible co-operative modalities among some Africa countries in selected subsectors.

The "top-down" approach is summarized in Figure 1. The first level of analysis in a study of regeneration and rehabilitation needs is the country - after a quick assessment of conditions and developments in the global environment and the region that may influence the domestic manufacturing sector of the country under review. From the country level, the analysis proceeds to lower levels of aggregation, until the plant level is reached.

Fig. 1: A top-down strategy for rehabilitation indicators



Surveys of rehabilitation needs based on this approach thus seek to assist African Governments in linking the macro, branch level and project issues in making decisions on rehabilitation and upgrading of production. The approach is also expected to increase the rate of survival of the particular plants or sub-sectors in which rehabilitation projects are undertaken, if concomitantly the context in which the selected plants or sub-sectors will have to operate is given due consideration. For industrial rehabilitation must be a dynamic, forward-looking concept. To restore industry back to what it was may not be sufficient. The world and economic conditions change rapidly. To ignore these conditions might lead the industry back to what it was before the rehabilitation exercise started - which could have been in the doldrums. After all, inability to cope with changes in external conditions may have been the cause of the industry's poor performance in the first place.

An important feature of the approach is to carry out rehabilitation analysis as a team effort - integrating the policy, economic, technological, managerial, financial and marketing dimensions. For this reason, the team that conducts the field mission is composed of experts in a number of areas. This is a departure from the traditional method of sending either an engineer or an economist to assess the viability of a plant.

The team is supported by national experts in each of the same areas of specialization. These local specialists are in the position to provide the right contacts and to know the answers to questions requiring knowledge of specific local conditions. In addition, the country designates one senior official in the Ministry of Industry or other relevant body to be the overall national co-ordinator. A local Liaison Officer is appointed to handle various matters between the team and government, particularly the national co-ordinator.

The importance of the team approach cannot be over emphasized. It is crucial that it be made up of highly motivated and competent professionals with solid and relevant development experience. It is the team that performs the diagnostic surveys; interviews Government officials, industry representatives, and representatives from various donor agencies based in the country; and formulates recommendations not only for specific rehabilitation projects but for improvements in the overall economic policy environment. The members must be able to work effectively with entrepreneurs, plant managers, and government officials responsible for the development of the industrial sector. The composition of the teams facilitate the production of final reports covering all the issues - from macro-economic to plant specific - including recommendations and follow-up measures.

The team is directed by a team leader who is familiar with multilateral and bilateral agencies, as well as with the practices of commercial and development banks. With the help of the other team members, the leader's efforts include preparing, promoting, and obtaining financing for bankable projects. At a later late, after completion of the rehabilitation analysis, the team leader may return to the field to assist African entrepreneurs in presenting the projects and in negotiating with investment authorities, suppliers of equipment, financial institutions and possible technical partners. Another important task of the team leader is to present the findings and recommendations of the country missions to possible investors, financial institutions, donor agencies and multilateral institutions.

These recommendations mainly concern individual plant level rehabilitation. They are however accompanied by recommendations of a more general nature, for improved performance at the branch, sub-sector and sector level. The plants selected for rehabilitation can 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 overall regeneration in the sector.

## 3. Regional and Country Studies Branch (REG's) programme

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). Subsequently, the General Assembly called upon UNIDO to formulate, in co-operation with the secretariats of the Organization of Africa Unity (OAU) and the Economic Commission of Africa (ECA), proposals to implement the programme for the Industrial Development Decade for Africa and to monitor its progress. The programme elaborated was then subsequently adopted by the governing bodies of OAU, ECA and UNIDO.

In response, an integrated multidisciplinary approach to the problem of industrial rehabilitation in Africa was formulated. Subsequently, the General Conference adopted this industrial rehabilitation programme with the result that it is now an integral part of the 1988/89 Programme Budget. Keeping in mind the complexity of the rehabilitation issues, UNIDO has formulated 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 that encompasses enterprises engaged in similar and interrelated manufacturing activities;

- at the enterprise and plan levels, in order to cope with critical bottlenecks identified in co-operation with Government authorities.

The overall emphasis is an agro-industries. Not only because, at present, these dominate African manufacturing, but also because these industries will continue to be a key element in attempts to diversify exports, and will continue to play an essential role in improving the supply of basic needs goods to African populations.

Within the UNIDO programme, the emphasis of REG's work is at the regional, country and macro-industrial level. As a first step, REG has prepared an overview of all African countries. After describing the domestic economic and administrative context, these "country briefs" present a short analysis of the manufacturing sector and its rehabilitation needs and potential. The briefs can be used as a basis for the selection of countries for in-depth studies.

The main part of REG's programme consists of a series of such in-depth country studies. These studies applying the "top-down" approach, and carried out by field teams as described above, contain an analysis of the performance of the manufacturing industry in the overall economic framework and within the context of changing external economic conditions. This covers the broad assessment of major constraints and resulting inefficiency of production faced by industry in terms of: inter alia, availability of financial resources (including foreign exhcange), 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 the World Bank and in various national and international development co-operation agencies and research institutions in Europe and elsewhere. Subsequently, field analysis is undertaken. On the basis of an assessment of the relevant factors, individual plants are identified that are likely candidates for UNIDO-supported rehabilitation efforts, and suggestions for the improvement of the industrial environment are made. It is intended to evaluate the 1988/1989 field studies programme during an international conference on rehabilitation issues.

As these studies contain confidential plant-level information, their distribution is restricted. For a more general readership, highlights of the country studies are prepared. These contain the information collected by the field teams in a condensed form. The work of REG during the 1988/1989 biennium is thus reflected in two series of publications: the "Special reports on industrial rehabilitation" series consists of the full-length country studies. The other reports - the country briefs (with a statistical companion volume), the highlights, special publications related to the international conference, and the present volume - are published in the "Studies on the rehabiltiation of African industry" series.

In the latter series, studies on Zambia and Angola have already been issued. The countries were first reviewed in their international context. Macro-economic, country-level analysis includes key characteristics of the country's administration and economy. At the sectoral level, manufacturing was reviewed in terms of overall characteristics, major problems and constraints, trade, and assessment of policies and institutions relating to this sector. The sector was especially considered in its relation to agriculture, since for most countries agro-based industries are the most important. At the sub-sector level, both the Zambia and Angola reports focused on agro-related industries and its branches. Again, overall characteristics, major problems and constraints, linkages, and policies as they relate to the food processing sub-sector were analysed. Finally, at the plant level, a detailed analysis was made of the rehabilitation needs of four firms, with specific recommendations for rehabilitation efforts.

The full application of the "top-down" approach is obviously labour intensive. It is therefore expected that, as the first lessons of its application have been learned and as the programme continues and expands, a division of labour will be applied to country studies.

In accordance with its mandate, REG will concentrate more strongly on the analysis at the higher levels and do lower level analysis primarily to assess the implications of the suggested plant rehabilitations for policy and institutional changes. More attention can then be paid to such crucial issues as linkages with other sectors, especially agriculture, and establishing of more exact pictures of industrial performance, problems and potential at the branch level. For it is at this level that the information gaps are largest. One way of establishing such a picture would be the collection of key data from manufacturing enterprises in the branch. The field teams would concentrate on data that are relevant for branch performance.

The more detailed plant-level rehabilitation analysis and implementation work would then become the responsibility of the specialized units within UNIDO. Great care should of course be taken that the work of the various units is co-ordinated, so that all the essential elements of the "top-down" approach are applied and the contribution to the successful regeneration and rehabilitation of the industrial sectors selected is maximized.