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**UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION**

**Expert Group Meeting on Industrial
Rehabilitation and Restructuring
with Special Focus on the
Food-processing Subsector in Africa**

Vienna, Austria, 23-25 October 1989

**INDUSTRIAL REHABILITATION AND RESTRUCTURING IN AFRICA
WITH SPECIAL FOCUS ON THE FOOD-PROCESSING SUBSECTOR**

Discussion paper

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Introductory remarks

This discussion paper highlights some major questions relating to industrial rehabilitation and restructuring in Africa, with special focus on the food-processing subsector. It does not substitute UNIDO's basic document for the Expert Group Meeting.^{1/}

Industrial stagnation in Africa: apparent and underlying causes

According to UNIDO's global report 1988-90^{2/}, the manufacturing sector in sub-saharan Africa experienced an absolute diminution in output per worker by approximately 28 per cent in real terms between 1970 and 1985, from US\$ 11,255 to US\$ 8,673 (in 1980 dollars). Between 1980 and 1985, both gross domestic product (GDP) and manufacturing value added (MVA) per capita declined absolutely for the region as a whole. There has been some growth since 1985: 2,5 per cent per annum from 1985 to 1987, 3,8 per cent in 1988 and an expected 4,6 per cent in 1989. However, the authors of the Global Report are not optimistic that the current industrial recovery will mark a reversal of the long-run slow-down in industrial growth.

According to a World Bank Report^{3/} there has been "de-industrialization" in 10 African countries during the 1970s and in an additional 11 countries in the early 1980s. Capacity utilization is reported to have decreased to levels of 20 per cent to 30 per cent.

The proximate reasons for industrial stagnation are:

- (a) Declining domestic demand from falling real incomes due to sagging agricultural growth and fall in commodity prices;
- (b) Declining export demand due to loss of competitiveness, change in tastes or substitution of materials or products, and restrictions in importing countries;

^{1/} UNIDO: Industrial rehabilitation and restructuring in Africa: the case of the food-processing subsector, IPCT.87(SPEC.), 21 July 1989.

^{2/} UNIDO: Highlights from Industry and Development: Global Report 1989-90, General Conference Document GC.3/26, 29 September 1989.

^{3/} World Bank: Sustainable growth with equity - A long-term perspective for sub-saharan Africa, Report No 8014 dated August 15, 1989.

- (c) Shortage of foreign exchange to support import-dependent industries, due to declining exports and increasing debt service burden;
- (d) Austerity programmes leading to withdrawal of government subsidies and other supports;
- (e) Poor maintenance and lack of spare-parts (and in some cases pilferage or destruction of some equipment due to civil strife or departure of expatriate entrepreneur), resulting in total deterioration of capacity;
- (f) inappropriate choice of scale and design of plant or choice of products - particularly in the public sector - resulting in unsustainable costs of production.

As regards the underlying causes of the current malaise, these are to be found in the structure and pattern of industrialization promoted in the "sixties" and the "seventies". Firstly, there was insufficient linkage to agricultural and rural growth and thus to growth in domestic demand. Secondly, industrialization was based on imported materials and equipment and catered to segmented markets of the urban rich and middle classes and sometimes exports. Thirdly, industrial enterprises were owned by the public sector, developed with foreign loans and imported technology and operated by expatriate management. Thus industrial enterprises became enclaves or islands heavily dependent on external resources (human and material), isolated from the rural economy and lacking integration and inter-linkages with the informal industrial sector and other sectors of the economy. The high and uncompetitive cost structure was contributed to by policies of restrictive licensing of capacity, import protection, distorted tariff structure, subsidized interest rates and overvalued exchange rates. Above all the failure to sufficiently build up local or national industrial capabilities in entrepreneurship, management and technology (i.e. human resources development), pari passu with the development of physical industrial capacities, is perhaps the most important reason for industrial stagnation in Africa.

The above analysis of the underlying causes of industrial stagnation is somewhat caricatured to typify the situation in sub-saharan Africa as a whole. It does not apply to some half-a-dozen countries who have been relatively successful in developing national capabilities and promoting exports to regional and overseas markets. Many more countries have had sporadic growth of the informal sector, including rural small industrial enterprises.

Role of the food-processing sector

The dominance of the food, beverages and tobacco subsector in manufacturing in most African countries is evidence of the early stage of industrialization in most of the continent. In the majority of cases food-processing is the most important branch (typically accounting for at least one-fourth of gross output and MVA in the manufacturing sector), but in some cases beverages are more important. Since food-processing is usually at a fairly rudimentary level (e.g. grinding flour from imported grains) the value added shares of the subsector tend to be much lower than the output shares. In value added terms only, the food processing industry often ranks behind beverages, textiles and mineral-based industries.

In terms of employment the food processing industry accounts on an average for about 50 per cent of the labour force in manufacturing. To this should be added large numbers of householders engaged in the informal sector of food-processing in rural areas.

The growth of the food-processing industry (as well as industrial growth in general) will depend heavily on the success achieved in raising agricultural output and incomes. Food-processing can play a significant part in reorienting industry towards serving the needs of the three-quarters of Africa's population found in agriculture.

Apart from technological, management and infrastructural problems, the problem of supply of raw materials to the food-processing industry has become crucial. Undue dependence on imported raw materials is an indication of the lack of integration with agriculture and the rural economy and often of the inappropriate choice of scale, design or product for the industrial plant. The food-processing industry may well need restructuring rather than merely rehabilitation.

Industrial rehabilitation and restructuring: scope and limitations

The underlying causes of industrial stagnation, outlined earlier, point to the need for structural transformation over the medium to long-term rather than mere short-term rehabilitation. "Industrial structures that have been set up in sub-saharan Africa have been weak, disjointed from their economies and fairly inefficient by world standards. Manufacturing has not been dynamic, in terms of either raising productivity or entering world markets; it has not deepened its structure or struck up local linkages; it has not generated beneficial externalities for the rest of the economy. Exogenous events reduced the physical expansion of industry or its capacity utilization, but they essentially overlay deeper structural deficiencies in efficiency and dynamism."^{4/}

The proximate or immediate causes of industrial decline are mainly exogenous. But the problems of high costs, low productivity, lack of export success and low local linkages are due to macro, industrial and trade policies, as well as the shortage of indigenous industrial capabilities. "Getting prices right" through modifications in macro, industrial and trade policies, may be successful to some extent in the short to medium term. But for longer term success, entrepreneurial, managerial and technological capabilities need to be built up.

^{4/} Sanjaya Lall: Human resources development and industrialization, with special reference to sub-saharan Africa, in Journal of Development Planning, No 19, 1989, published by the United Nations.

Since existing industrial capacity in Africa is not well adapted to local demand and supply conditions, and much of it cannot be sustained, concentrating mainly on industrial rehabilitation may not bring about the transformation required. "The future lies in shifting industrial structure towards high growth, competitive enterprises that are linked to the domestic economy. Reviving investment for this purpose will require the restructuring or removal of loss-making firms and substantial efforts to mobilize domestic and foreign investible resources."^{5/} In this light a consensus has emerged that the industrial strategy for the Second Industrial Development Decade for Africa "must address functional issues such as the underlying human, technological and institutional capabilities, and not concentrate simply on industrial capacity creation or rehabilitation."^{6/}

In this context we now turn to the approach and contents of UNIDO programmes on industrial rehabilitation and restructuring in Africa.

UNIDO programmes: approach and contents

The principal objective of UNIDO technical co-operation assistance in the field of industrial rehabilitation is to improve industrial capacity utilization and productivity. Tacking into account both the short-term and the long-term needs, "the concept of industrial rehabilitation should 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 performances with the largest possible effect on overall growth. The second task is to combine the plant rehabilitation process with a restructuring programme of the industrial structure 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

^{5/} Ibid, World Bank.

^{6/} Ibid, World Bank.

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.^{7/}

UNIDO's approach to tackling the problem of declining industrial production in Sub-Saharan Africa has been described as a "bottom to top" approach, starting at the enterprise level and working upwards towards higher levels of constraints. It is felt that much could be accomplished in the short-to-medium term by rehabilitating many enterprises and transforming them into economically viable entities through such measures as rebuilding of equipment, provision of spare parts, expert assistance combined with accelerated training to provide essential manpower, helping in securing financial resources for realizing rehabilitation, helping in devising government policies and in formulating long-term manpower policies and programmes. It is realized that substantial achievement will require long-term efforts, especially by governments, to establish a favourable environment and develop industrial manpower.

It should be noted that while UNIDO technical assistance adopts a "bottom-up" approach, UNIDO's diagnostic studies - within its technical co-operation programme - take a comprehensive view from the start. This is so in the country-level surveys for rehabilitation of agro-industries so far carried out in Angola, Liberia, Morocco, United Republic of Tanzania and Zambia. "Starting at the macro-level with the macro-economic and institutional factors which impinge on the performance of plants, the analysis descends through the sector, subsector and branch level analyses, and finally reaches the plant level. In order to determine environmental constraints to plant performance, UNIDO then assesses the rehabilitation requirements of individual plants in the opposite direction, from the bottom upwards. In so doing, UNIDO tries to assess what changes in the economic and institutional environment are required as a precondition for successful plant level rehabilitation. This double perspective - top down and bottom up - in the rehabilitation approach ensures a thorough identification of requirements for the long-term economic viability of individual plants."^{8/}

^{7/} UNIDO: Project document for Regional Project for the sub-saharan Africa region, DP/RAF/89/129/A/01/37. Assistance in the Rehabilitation and Maintenance of Industrial Enterprises in sub-saharan Africa (1989).

^{8/} UNIDO: Report of the Round-Table Meeting on Industrial Rehabilitation, Lusaka, Zambia, 8-10 March 1989, PPD.120, 8 June 1989.

It is relevant to note in this context that while UNDP/UNIDO technical assistance could by itself ameliorate or solve plant level problems in the short to medium term, longer term changes in macro-policies, trade and industrial policies, as well as additional investments in industrial capacities, and more importantly the building up of industrial capabilities, would necessitate the active involvement of the government and of several other international, regional and bilateral assistance agencies.

UNIDO's technical assistance projects relating to industry in Africa are both at country and regional levels. They cover practically all aspects of industrial development. They include assistance in industrial policies, industrial planning, institutional development, industrial training; technology adaptation, transfer, acquisition and development; investment promotion, feasibility studies, sector/branch/plant level studies and assistance, energy and environment.

Topics for discussion^{9/}

- (a) Appropriate industrial strategies and policy reforms for the creation of a favourable economic climate in the modernization of the food-processing sector

The policies formulated should create a favourable economic environment for competitiveness and rules and regulations should be implemented equitably. In recent years many African countries have undertaken policy reforms either on their own (Economic Recovery Programme - ERP) or under the aegis of IMF - World Bank (Structural Adjustment Programme - SAP). As is well known these programmes involve rationalization of exchange rates, interest rates, prices, tariffs and tax structures, and also control of budget expenditures, reduction or elimination of subsidies and efforts to reduce balance of payment deficits. At the same time import liberalisation is introduced to bring about competitiveness and to make available essential intermediate goods and consumer goods.

^{9/} As in para. 14 of the aide-mémoire for the Expert Group Meeting dated July 1989.

In regard to food-processing industries, incentives for agricultural development (pricing, extension services, etc.) are directly significant since such measures improve the availability and quality of raw materials for the manufacturing industry. ERP and SAP also facilitate the availability of imported inputs by making available foreign exchange for the purpose to potentially efficient enterprises.

Specific recommendations of UNIDO studies^{10/} - cited below - will be of interest to the expert group.

Angola

- Short-term economic stabilization measures as suggested by the SEF (SAP) should be harmonised 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.

Liberia

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

United Republic of Tanzania

- Formulation of a coherent strategy for industrial rehabilitation, with priorities and a specific action programme.
- Re-establishing macro-economic equilibria within a relatively short-term perspective. Distortions may be caused by short-term measures affecting prospects for the long-term.

^{10/} UNIDO: The agro-based industries in Angola: key characteristics and rehabilitation issues, PPD.103, 29 December 1988; The agro-based industries in Liberia, PPD.127, 17 July 1989; The agro-based industries in Tanzania, PPD.125, 11 July 1989; The agro-based industries in Zambia, PPD.102, 29 December 1988.

- Rationalization of tax system, to co-ordinate import duties structure with sales tax structure.
- Review of wages policy so that workers gain from productivity increases.

Zambia

- Strengthen the forecasting capacity to formulate and implement appropriate measures and to monitor industrial development projects.

(b) Prerequisites for promoting and implementing industrial rehabilitation and restructuring programmes: technology, skills and institutional and infrastructure development

"Prerequisites" cover a wide range of measures and activities. The existence of sound policies and programmes for agro-industries, research and development, education, training and transfer of technology, are essential underpinnings for a successful food-processing industry. Since small countries cannot singly afford all these facilities for themselves, there is need for close regional co-operation.

Physical infrastructure relates among other things, to power, water and transportation. The location of a food-processing plant and its costs of production will be affected by access to raw materials as well as to markets. Repair and maintenance facilities as well as spare parts for equipment, should be easily available.

It is of overriding importance in the food-processing industry to maintain absolute standards of quality and safety (to health). Testing and laboratory facilities are essential. Market information as well as promotion of new technologies, materials (packaging, chemicals, etc.) and products are vital.

The inadequate development of domestic transportation networks in many countries makes it important that adequate linkages are established between large-scale plants and small-scale processors in rural areas. Thereby optimum advantage could be derived from available raw materials, while minimizing problems of storage, transport and spoilage.

While regional and overseas markets are necessary for some products grown in large surplus in some countries, e.g. fruits, nuts, tea, coffee, etc., the most appropriate (and profitable to the economy) stage of processing in relation to the markets concerned and costs and quality should be considered. The dependence of food-processing industry on imported raw materials should be minimized (except perhaps for adjacent or easily connected countries) and the industry tied more and more to utilisation of local and domestic resources and for meeting the domestic market requirements and of markets of neighbouring countries (except in the case of processing of export crops e.g. tea, coffee, nuts, etc.). Market research and promotion services of large enterprises or preferably of an association of food-processing industries, should provide information and guidance on these questions.

Some recommendations of the country studies^{11/} are given below:

Angola

- A large programme of public works is needed to improve the physical infrastructure.
- General education and technical training deserve high priority in order to increase the availability of qualified personnel.

United Republic of Tanzania

- Training facilities and opportunities should be given particular attention within the regional context.
- Marketing and trade contacts should be further developed in the regional context, both for substitution of imported inputs and for joint marketing promotion activities.
- Management training should be provided at the senior level.

11/ UNIDO, Ibid, footnote 10/.

Zambia

- Strengthen the advisory capacity with regard to rehabilitation and new investments of the Industrial Development Corporation (INDECO).

(c) Financing of rehabilitation and restructuring programmes: problems related to finance; investment and the current debt problem in Africa; the role of international financial institutions and regional organizations; feasibility studies, etc.

UNIDO's basic document for this Meeting^{12/} cites the estimate that an initial fund of US\$ 5 billion may be needed to finance industrial rehabilitation and restructuring in the African region. This figure is, of course, for all industries and not for food-processing alone.

The same UNIDO document points to the reduction in financial flows to Africa. "The total net effect (during 1985-87) was a reduction in financial flows of US\$ 6.5 billion, including terms of trade losses of US\$ 0.2 billion and increased interest payment of US\$ 2.1 billion".^{13/}

Until the problem of indebtedness of African countries is satisfactorily solved, net financial flows to Africa will not increase substantially. There will have to be continued dependence on official development assistance, bilaterally and multilaterally. The squeeze imposed by structural adjustment programmes combined with the burden of debt servicing and repayments, would leave little leeway - domestic or external resources - for additional investment. Nor would the climate be conducive for increased foreign flows, particularly of direct foreign investment.

There can only be slow progress through macro-economic reforms, incentives for domestic savings, restructuring of the financial sector, financial intermediation, new and innovative financial mechanisms, linking formal financial institutions with informal credit mechanisms, development of investment codes for attracting foreign investment, etc.

12/ UNIDO: Ibid, footnote 1/.

13/ UNIDO: Ibid, footnote 1/.

The financing of feasibility studies could be undertaken under technical co-operation programmes as well as by development banks. Rehabilitation programmes should result in projects for restructured/new enterprises, which could receive project financing from regional or international financing institutions, or direct investment from foreign investors (often through UNIDO's Investment Promotion Programme).

(d) New areas of technical co-operation and their implications for the work of UNIDO

The approach and contents of UNIDO programmes on rehabilitation and restructuring have been outlined earlier in this paper.

Since plant-level assistance has not been included in the other topics for discussion, the type of recommendations made in UNIDO studies may be noted by the Expert Group. These are:

Angola:

- Production and availability of spare parts;
- Training in maintenance;
- Use of natural fibres for bag manufacturing.

Liberia

- Training in production, maintenance and management;
- production and availability of spare parts and tools;
- Local production of raw materials - feed crops, animal protein, new plantations.

United Republic of Tanzania

- Management training and filling of positions;
- Replacement of obsolete equipment and parts;

- Quality control programmes;
- Safety and health regulations;
- Availability of spare parts;
- Improved supply of raw materials;
- Cold storage facilities.

Zambia

- Production and availability of spare parts
- Development of maintenance procedures and training;
- Training of middle management;
- Development of packaging material (kenaf fibre);
- Installation of balancing equipment;
- Quality control system;
- Worker's safety and health measures.

The following questions - among others - may be considered:

- The relative weights or priorities to "top-down" and "bottom-up" approaches;
- Programme covering food-processing subsector as a whole vs assistance to individual factories;
- Country projects vs. regional project;

- Assistance to joint or co-operative efforts (SADCC, PTA or other groupings) for spare parts production, marketing, research and development, promoting multinational enterprises, etc;

- Taking into account the likely emphasis of the Second Industrial Development Decade for Africa, priority to development of African industrial capabilities (entrepreneurial, managerial and technological).