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INSTITUTIONAL REQUIREMENTS FOR INDUSTRIALIZATION OF RURAL AREAS: A STUDY IN DECENTRALIZATION OF MULTI-FUNCTIONAL INSTITUTIONS *

by

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Introduction

The object of this paper is to underline the need for and scope of decentralization of multifunctional institutions to build up a faster tempo of industrialization in rural areas of the Least Developed African Countries.[1]

The subject of special assistance to the least developed countries has been constantly under discussion in several UN forums particularly since the third session of UNCTAD held in Santiago, Chile, from 13 April to 21 May, 1972, where the attention of the world community was drawn for the urgency of special attention to those countries.

The development of small-scale and rural industrialization is encouraged in recognition of their strategic importance to integrating the national economy as an organic whole, and expanding the entrepreneurial and technological base for further industrialization. The Least Developed Countries of Africa constitute a special case in this regard.[2] In these countries perhaps one of the most important missing factors critical to the development process is the link between agriculture and industry. Basic institutional infrastructure, therefore, needs to be accelerated with appropriate horizontal and vertical linkages to integrate the rural industrialization processes with the small-scale industrial structure which in turn is to be linked with the large-scale operating industry so that the impact of forward and backward linkages of the industrial operation is felt by the entire national economy.

To realise this objective, institutional arrangement in the least developed countries of Africa has to be not only strengthened further, but significantly decentralised so that it penetrates sufficiently deep into the countryside to achieve the necessary integration. The idea underlying this strategy is to provide an overlapping institutional arrangement for industrial development so that no industrial sector is ignored in the development process, and that the industrial development is internally routed with sufficiency of internal linkages.

Significance of Rural Industrialisation

In an ECA note presented at the ECA/OAU Conference of Ministers of Industry it was pointed out: "As agricultural productivity rises", presumably as a result of effective agricultural policy, "new employment opportunities must be created in non-agricultural activities in the rural sectors if the link is not to break".[3] While the paper views that for a small country an outward-oriented industrialization policy is not an option but a necessity, it underlines that, "for any country, however, wishing to restructure its economy, an inward-oriented set of policies and incentives directed at its rural sector have a decisive role to play in mobilizing rural resources and in transforming the structure of rural production. By the successful implantation of the seeds of industrialisation in the rural areas that would forge a strong link with that of an urban sector, African countries could develop a self-reliant base for industrialization".[4]

The case for rural and village industrialization is not based on economic cost-benefit ratio or input-output analysis. Rather its justification is based on social transformation approach to build up a sound structural base, to achieve over a given period of time, a self-sustaining and self-reliant development process. But, apart from theoretical considerations of social transformation, the need for rural industrialisation implies a practical operational aspect in prescribing an industrial strategy for the Least Developed Countries of Africa.

A basic feature of the African LDCs is the predominance of agriculture, accounting for more than 50 per cent of their Gross Domestic Product. More than 80 per cent of their total population is engaged in the agricultural sector. Manufacturing activities employ less than 5 per cent of their total population and contribute less than 10 per cent to their GDP.[5] In such a situation, while agriculture will of course be a take off point for most of them, it has to be realised that there is a fundamental link between agriculture and industry in the very nature of the growth process that is tuned inwards for the development of the people of every country. In the absence of a complementary industrial policy, the process of growth stimulated by agricultural policy may thus be retarded. Moreover, improved agricultural productivity may render some agricultural labour surplus. The effective rural industrial programme could, thus, significantly help in reducing the tensions generated as a result of the 'employment crisis' currently the bane of many a developing country, and thereby reduce social costs. Industrialization in general, and rural industrialization for that matter, cannot alleviate the employment problem in the short run, but it can surely make a significant contribution to the objective of expanding employment opportunities. Rural industrial programmes would, being labour-intensive, be more effective. They will further check the migratory flow of surplus rural population to urban centres.

Case for Decentralisation

It is now widely recognized that agricultural and industrial development policies are merely different sides of the same coin. In the integrated development approach this will also be true of the educational, and communicational and transport infrastructural programmes like roads, bridges, railways, water and electricity. In the formulation of decentralised programmes of the multi-functional institutions connected with this development process it would, therefore, be logical to focus attention on ensuring the internal consistency and complementarity of policies, programmes and projects at the same time as underlining the urgency of appropriate horizontal and vertical institutional linkages.

It has been mentioned before that for integrated development rural and small industry is as important as large-scale factory production. However, during the 1960s the global view of industrial strategy placed disproportionate emphasis on large-scale industry. This approach increasingly came under strong criticism both from developing countries themselves and from outside sources. It was argued that the relation between investment and development (however defined) is far from simple and that development is a total process. Besides, the implied identification of overall growth with development ignores distributional factors. Some of the distributional aspects identified are between social classes, between rural and urban population, between people involved in the formal' sector, and those outside it, and between different geographical areas. The least developed countries are one form in which spatial inequalities may occur.[6] Therefore, in the formulation of policy measure regarding the institutional set up for the least developed countries of Africa this aspect of internal consistency and complementarity between different sections of industrial development assumes special attention.

In the least developed countries of Africa, where the industrial development has thus far touched only the fringes of their economies, the question of developing a strong domestic entrepreneurial base is indispensable to self-generating industrialisation. It could be a highly rewarding exercise to promote and encourage indigenous enterprise right at the grass root level. It does not mean that other levels of promoting enterprise are to be accorded lesser importance. Rather, in the past it has been found that the multifunctional instituions, for want of their sufficient decentralisation, have badly ignored the rural sector. Being located in the urban centres, they have generally taken a narrow view of integrated development approach. Their activities have been largely concentrated in the urban and semi-urban areas, mainly capital cities and a few bigger towns. They have not paid adequate attention to village industry, nor attempted to develop processes and techniques of production appropriate for encouraging rural industrialisation. Since urban areas are infrastructurally better equipped, the executive officers of the industrial service institutions tend to be influenced by short-term goals, rather than a long-term strategy which includes the creation of a balanced industrial infrastructure and decentralization of their activities.

It is important to call a halt to such tendencies which are likely to increase the gulf between the urban-rural sectors, further distort income distributional pattern and cause spatial inequalities. Above all, the dependent characteristics of the urban industry on foreign technology, foreign assistance and foreign management and technical manpower resources, may not undergo any significant change in the absence of continuous inflow of domestically developed production techniques, domestic enterprises finding their way up from the grass-root level and domestic accumulation of capital at all levels.

The point is that it is most urgent for the developing countries, and more so for the least developed countries of Africa, to work for constantly and consistently increasing interaction between organised and unorganized, formal and informal sectors of economy to build up a self-sustaining structural base which would act as a spring-board for the indigenous population. Although much lip-service has recently been paid, both in international fora and within the Least Developed Countries of Africa themselves, very little has been done, in most cases, to sufficiently decentralize the institutional infrastructure to carry out the programme of a decentralized industrial structure. In practice the industrial structure built-up during the 1960s has not undergone any significant modification to realize the policy goals based on integrated development thesis. The rural industry has continued to languish as a result of want of attention and institutional deviciencies.

When most of the African countries attained political independence, the new African governments were aware of the urgency of promoting and encouraging industrial activity in general and that by indigenous Africans in particular, to enable them to participate fully in the dynamic industrial sector of the economy. However, inheriting the colonial structure, and lacking both administrative experience and technical skills, they permitted the industrial base to function the same way as it did before the independence. The emphasis was only placed on increasing participation by the indigenous Africans in the industrial ventures - whether financed and managed by the multinational corporations or some local enterprises. The other step taken was to establish one or two multi-functional parastatal bodies like Development Corporations to promote and participate in manufacturing industry within the country. However, since large-scale factory production was the norm to produce the mass-scale consumer products, that norm was not disturbed. It was only advocated to produce such products locally. Import-substitution thus became the major industrial activity and strategy, mainly in the field of mass production of consumer goods (sugar, textiles, dairy products, beer, sweets and biscuits, metal containers, coffee curing, tea-making, vegetable oil, etc.). In many cases, foreign investment in these ventures came from the same multi-nationals who had in the past been the major suppliers of these products from their factories abroad. To preserve their overseas market they put up the factories in the African countries which encouraged such investment and industrial activity. In certain cases African governments participated in such ventures, and joint industrial ventures were established.[7]

The point I wish to make is that the need and significance of small-scale and rural industry, or the introduction and development of new production processes and techniques of production was appreciated and identified piecemeal. Similarly, the presently widely felt need for encouraging and promoting artisan skills and traditional technology, or borrowing and introducing at the small scale and rural level the forms of technology and techniques of production which are more relevant to the local requirements and demand pattern, and which might be within the easy grasp of an African artisan and entrepreneur, has been a recent phenomenon - a result of industrial strategy of the 1970s.

There is little doubt that after independence new African governments generally reorganized the economic disadvantages they suffered as a consequence of remaining colonial economies for a very long duration of time. The economic and social structure was devoid of any internal organic links rooted in the indigenous technological base. The concentration of industrial manufacturing sector in the metropolitan countries had led to the accumulation of capital at home, while the colonial territories had become the vast reservoirs of cheap labour and supply of raw materials. Most of the technological development during the twentieth century, that literally revolutionised the industrial modes of production and patterns of supply and demand in the western world, had the effect of converting most of the African territories into a vast hinterland of Europe. The indigenous traditional technical processes were swept away. They never received a chance of adopting and adjusting their productive apparatus to the requirements and needs of their own peoples. The crafts like iron-smelting and making iron tools, cotton spinning and weaving, pottery making, basket and mat weaving, leather tanning and woodwork badly declined. The newly emerging supply and demand structure struck a deadly blow to several such activities. Thus, whatever craft industry or relatively integrated rural economy that existed was allowed to perish.

There was some amount of profitable investment outlets for metropolitan and settler capital in the overseas African colonial territories which enjoyed, what has come to be termed in some quarters as the peripheral - central position. Such territories developed their own satellites in surrounding territories under the control of the same colonial power. For instance, Tanzania and Uganda were viewed by such writers as satellites of Kenya, serving as markets for industrial production of Kenya when the three territories were a part of Common Services Organisation, or East African community.[8]

The present LDCs of Africa were perhaps the worst sufferers of this system of centre-periphery relationship. The non-participatory system of administration, services and commercial establishment helped to reinforce the market for consumer goods and export of raw materials. The new structure, under the colonial system, encouraged the development of a low-level administrative and commercial strata which occupied more people than the manufacturing sector. David Phillips in his study of 'Industrialization in Tanzania: Small-scale Production' puts his finger on this point when he writes: "One of the characteristics of an ex-colonial economy such as Tanzania is the relatively high proportion of "unproductive" service workers in the wage-earning sector compared with manufacturing."[9] In the Western capitalist system, manufacturing employment growth precedes that of an employment growth in the service sector. In Tanzania, on the other hand, the service sector - including commerce and distributive trade, government, banking, ports, transport, education and health - accounted for 34 per cent of the wage employment in 1965, and 42 per cent in 1973. The corresponding figures for manufacturing industry were 7.8 per cent and 14.3 per cent. The system had all the characteristics of external dependence - the centre-periphery relationship - as mentioned above. The least developed countries are a more acute case of the system.

Hence, immediately after independence, the African countries had perhaps a little alternative but to live with the system until they could develop a more appropriate industrial strategy. The 'industrial transformation' strategy is the product of early experimentation with the existing structure and import-substitution industrial strategy as advocated by the World Bank reports in early 1960s on several African countries like Kenya, Uganda, Nigeria and Tanganyika.

Concentration of Industry: A case of Tanzania

However, despite the general approval of the transformation strategy and integrated development approach, the structure of industrial output has not undergone any significant change to this day even in Tanzania which has been the most outspoken to aim at industrial transformation. The traditional 'areas' of manufacturing consumer products like food, drink, tobacco, garments, textiles, leather-works, wood products continue to remain dominant large-scale production manufacturing activity. In general the developing structure of least developed countries of Africa, almost without exception, has followed, so far a typical pattern of primary processing and light industry of import-substitution variety. Among the LDCs perhaps only in Tanzania has a mild doze of heavy intermediate goods industry been injected which again, with the exception of glass and cement, is highly import-dependent with minimal linkages to domestic resources.

In Tanzania, however, the share of public sector parastatals in the matter of ratio of total investment has impressively grown since independence and particularly after the 'Arusha declaration'.

The following table throws some light on this:

Public Sector Investment (in shs.million)

	1964	1968	1972	1973
Public investment	2234	645	1886	2077
Total investment	767	1396	2539	2936
Public Sector Share	30%	46%	73%	70%

Source: David Philips, Op. cit., p.17

Furthermore, the Tanzanian case shows that the public sector has not helped in redistributing industry. It has tended to concentrate it to large-scale operation. The gap has further grown between medium and large scale industry using relatively advanced technology and to a large extent imported skills and materials, and the small-scale and village industry which represent the more scattered small-scale processing and light manufacturing enterprises. A mere partnership in the large-scale sector, still significantly foreign assisted, funded and managed, is not enough, it is a doubtful solution to transformation strategy. If anything at the time of independence, in 1961, manufacturing industry was comparatively more widely distributed. For instance, Dar-es-Salaam, Coast, and Morogoro together accounted for around 30 per cent of industrial output then, as against 65 per cent in 1971. In the same period Tanga's share declined from 28 per cent to 7.5 per cent, and that of Mwanga from 24 per cent to 7 per cent. On the whole there was hardly any change in the ratio of manufacturing industry in the urban centres to the rest of the country. That remained around 91:9.

On the whole, it was found that there had been a relative decline in the operation of small-scale, labour-intensive enterprises in Tanzania, and a consequent increase in the overall capital-intensity of production. Fundamentally the weakest factor has been the absence of major internal linkages to domestic raw materials, transport and communication systems which continue to be high-cost export-import oriented, rather than stressing an inward looking inexpensive system based on local demand and local needs.

The result of the above structure has a tendency to further consolidate the development of urban enclaves, import-oriented consumer markets and maintenance equipment for large-scale industries. This has to be paid for in export-oriented raw materials. This structure evolves logically and directly from the pre-colonial system. Perhaps a relatively large LDC like Tanzania could afford to experiment with the Rweyemamu-Thomas model of 'basic capital and intermediate goods' as an industrial transformation strategy,[10] it is however highly doubtful if this model will suit any other LDC of Africa. It may not even suit some of the relatively more industrially advanced but small countries of sub-saharan Africa, unless they join hands and form larger units, like former

East African Community or forge some form of customs union or trading zone. Even then the model will have to prove its success before it could be accepted as an adequate alternative path in the transformation strategy for a situation as it pertains to most of the sub-saharan African countries and less so to the Least Developed Countries of Africa.

Integrated Development Model

The least developed countries of Africa find the integrated development model of 'transformation' as more practicable and applicable to their present requirements. This model does not attach importance to 'scale' or 'technology' bias. It underlines the need for decentralization of industry incorporating labour-intensive small-scale production adopting appropriate technology, as might be found relevant in the light of the requirements of the particular industry. As mentioned earlier, it does not under-estimate the significance of large and medium-scale industry but it indicates higher social returns by properly linking the small-scale and village industry with urban based large-scale factory production, putting emphasis on appropriate production techniques, encouragement of traditional artisan and other technological skills and minimal utilisation of locally available materials and inputs-avoiding heavy capital expenditure.

Even in Tanzania, the policy as outlined in Arusha declaration, and second development plan which calls for the development of public control and ownership of means of production at state and local level, attaches importance to methods of decentralisation and rural development to realise the policy goals. The Arusha declaration specifically advocated reduction in dependence on monetary capital. In 1973 a special party directive on small-scale industries was put out. It called for a technological revolution in the rural areas based on control of industry by people using existing skills and materials, and avoiding heavy capital expenditure.

Thus, irrespective of ideological orientations of certain LDCs of Africa, the 'transformation' strategy in one way or another with its components of 'decentralisation' and 'integrated' industrial development generally suits most of the LDCs of Africa at their present stage of development.

The policy goals regarding strategy thus being clear, we may now have a look at the institutional set up to realize the objectives.

Decentralization of Multifunctional Institutions

For any successful implementation of an industrial development programme, it is important to have an adequate administrative machinery as also an effective service institution. In the advanced countries their adequacy is taken for granted and in Western countries, industry itself takes care of a substantial part of it. In the developing countries, which have inherited an under-developed economic structure, it has now generally become a function of the governments to provide at least some basic institutional set up to implement their development policy goals. Some governments go to the length of providing almost the whole gamut of this structure, the need for which is felt to be one of the most critical factors in the development processes. The least developed countries of Africa generally fall in this category where there was almost total neglect of the industrial sector in the pre-independence period.

The administrative and other institutional machinery for industrial development may consist of government departments directly concerned with industry, other government departments and bodies whose functions are related to industrial development and para-statal organizations who provide services and promote industrial activity. A study of industrial promotion and service institutions must take into account their organizational structure, staffing, functional efficiency, operative strategy and their integration into the overall administrative machinery. The mechanism thus composed, takes for its starting point the objectives of industrial policy.

The promotion of industry and encouragement of indigenous enterprise in the Least Developed Countries of Africa would require every kind of industrial service (credit, technical assistance, marketing facility, information media, research guidance, testing machinery, quality control etc.). In the programme of small-scale and rural industrialization, small enterprises have initially to be provided with some kind of centralized technical and engineering services, research and testing facility at a centralized place in the vicinity of such enterprises. Many enterprises of this size are newly established in these countries. They have yet to acquire substantial experience in handling production problems. Often there are just a few small enterprises in a particular industry so that opportunities are limited for an interchange of knowledge through industrial associations or through the movement of personnel from one enterprise to another. Again sometimes the mobility is restricted due to lack of information or local jealousies.

It has to be recognized that in the LDCs of Africa, the provision of industrial services of almost every kind is a must for a successful industrial programme to make an impact in the countryside. Furthermore, the experience suggests, that to achieve harmonious relations, it would be better to group as many services as possible within a central multifunctional institution. Such an arrangement provides a suitable structural organisation with a managing director to ensure operational efficiency by proper coordination between different services. Industrial development demands positive success. It is, therefore, important to give overall responsibility to one man who might as well have a free hand "to plan, to build, to stimulate". He must be invested with responsibility for action. It is not suggested that he will have no check on him whatsoever. Rather the Board of Directors and the Ministry of Industry, under which this kind of an institution would work, would constantly act as watchdogs, but he should have sufficient discretionary powers to undertake a new programme if he finds it worth experimenting. Too much of caution cannot be a watchword of an industrial executive.

While the provision of most of the industrial services under the roof of one institution may be a useful proposition, there are certain services, whose functions are regulatory rather than promotional.

Such services cannot be combined with those whose functions are promotional. Again certain services like infrastructural facilities - roads, railways, communication linkage, provision of water and electricity, cannot be combined with purely industrial services as mentioned above. Moreover, the services like credit facility is better left to a separate agency as it is a highly specialized field which justifies a separate institutional establishment.

However, the multifunctional institutions are the major vehicles to implement the policy goals. Therefore, to realize decentralized and integrated industrial structure as an instrument of 'transformation' strategy for most of the least developed countries of Africa, it is equally important to suitably develop, adopt and adjust the functioning of multifunctional institutions to meet the required needs. It is found that the present working of such institutions has not been always helpful in creating a wider decentralized base for the industry. What is called for, therefore, is the need for decentralizing the activities of those multifunctional institutions which are directly relevant for promotion of small and rural industries and the encouragement of indigenous enterprise and indigenous traditional technology.

Since industry is the client of industrial services, it is clear that the services must make an effort to take their assistance to individual firms, rather than wait for the firms to come to them, especially in the case of the small industrial units in the countryside. For this reason a measure of decentralization of institutions providing such services is not only advisable but rather a necessary condition to encourage and invigorate small and rural industrialization programmes. It is very important to establish a relationship of confidence between the service institution and client industry. Practical demonstration of the quality of work done by a service will determine the reaction of its clients and the reputation of the service.

Effective service to industry requires a direct contact between the industrial service and industrial enterprise. Since small industry in any country is likely to be situated in a number of different places, being widely spread out, it is important to take the needful steps to provide services to them. Sometimes it may be workable to make intermediate arrangements by providing some services centrally and some by visits to the field. It may not be a good approach to always expect the small entrepreneurs to visit the central office. That may on one hand make the officers bureaucratic-minded, devoid of the service spirit, and on the other hand they do not learn sufficiently the realities of individual problems in industry. Moreover, the small industrialists may not feel sufficiently encouraged to seek the needful services. Wangwe in his unpublished study of 'Decentralization and Rural Industrialization', shows how in Uaya ward (kilosa) in Tanzania a cooperative enterprise of 15 people, did not receive any assistance from a regional extension service provided by Small Industries Development Organization of Tanzania. He further writes that "technical advice was yet another factor, which never reached various economic activities at rural level. Such instances are common in most of the regions". This is a clear indication that even in Tanzania where institutions like SIDO have surely made significant inroads in rural areas and focussed attention on the needs of rural industry and significance of traditional crafts and technology, the decentralization of the organization has not been sufficiently achieved to make an appreciable impact in several Tanzanian rural areas. We shall throw some more light on Tanzanian institutions a little later.

One of the important steps in the decentralization scheme would be to provide, right in the countryside, an effective and strong extension service. This service reaches the industrial units in the rural areas at their door steps. It helps them assess the prospect of their industrial activity, if necessary selects a new location for them, estimates for them capital requirements and potential market. It may even suggest to them new product lines, guiding them on choice of raw materials and tools and appropriate production techniques and processes. This service could be a repository of information services, market counselling and organizing on-the-job courses of training.

A decentralized network of extension service is thus an urgent needs of the LDCs. The idea is that unless this network could bring within its fold almost every kind of rural industrial activity - which in the rural context may imply most of the non-farm specialised activities it will not constitute a complete service. It has to be understood, and its significance accepted, that small-scale industries and artisans type workshops or cottage handicrafts are fundamentally important for the overall industrial development of the country. They constitute the much needed technological base within the country. They rely almost totally on domestic materials and provide the grass-root framework for building vertical linkages. Their activities, therefore, need every encouragement. It is true that in an LDC all industries, irrespective of scale of operation, suffer from several constraints like finance, management skills, technological information, industrial training, research and consultancy services, yet in the case of small industrial units in the countryside these difficulties are far more acute. The capital structure of these units is weak, and the need for technical counselling and market information is highly pressing. Besides, whereas the large-scale factory operation is quite often in a position to manage for itself certain infrastructural facilities like water and electric power, a small unit has invariably to rely on the existing structure. In fact one of the major requirements of rural industrialization programmes is the provision of adequate infrastructure like feeder roads, cheap transport and other communication facilities, water and cheap power. Presently, rural enterprises suffer from the want of many of these facilities. Moreover, small units are managed and financed by one or at the most a few persons and, therefore, they justify special support.

One of the major constraints of a small operation is the difficulty in obtaining credit. The credit institutions in the LDCs are generally not sufficiently decentralized to appreciate the problem of a rural industrial enterprise which is not normally in a position to satisfy rigid requirements of sufficient collateral for credit facility. His needs could perhaps be made by integrating credit with technical assistance. If there was an extension service provided by a rural credit institution, it could, perhaps in cooperation with a technical extension service, surely do a better job than a money-lender who charges exorbitant rates of interest. The need here is one of supervised credit and guidance for proper use of it.

Another factor of crucial importance in promoting rural industrial programmes is to identify suitable product lines for small-scale operation and prepare a number of project profiles. With decentralized industrial services, this job could surely be better done. The decentralized institutional arrangements would provide a built-in feeder mechanism whereby the extension service could constantly keep the central office fed with the nature and potential of available traditional technology, its needs and problems. This would help the central design, technical and research offices, to bear in mind the nature of entrepreneural capability of rural side, and the production processes to which they could respond and adjust comparatively more easily, while they prepare project profiles for rural industrialization programmes.

The decentralisation of the multifunctional institutions is thus justified on the grounds of deeper impact it would make on the rural and small-scale industrialization programme. By decentralizing its services right into the interior of countryside, the industrial development of the country gains in depth and evolves a self-reliant mode of advancement. It becomes more than a device of organizational structure, it becomes a mental attitude, and a working goal. However, there are certain services which cannot be decentralized in this sense. For instance services like industrial research, higher technical and engineering education, testing laboratories and protection of industrial property have to be provided on centralized bases by the very nature of their services and minimum economic scale for their optimal operation.

Each industrial service develops its own way of reconciling the desirability of ecentralisation and the reasons against i . In a small country initially the difficulty is not great. Since the industry is small in size, the service centres could be located in the vicinity. In a large country where industrial activity is concentrated in a particular geographical area, the entire service, or at least a regional office of it, may have to be located in that area. As industrialisation-expands in size, volume and geographical coverage, further decentralisation of the service becomes a logical outcome. If it is not done, for a variety of reasons, the integrated industrial development suffers a set-back.

Institutional Decentralization: A Case of Tanzania

Among the least developed countries of Africa, Tanzania has perhaps shown more concern for small and village industry and established a sound institutional infrastructure to achieve the objective. Tanzania's twenty-year industrial development plan, beginning with the third five year plan, covering 1976-1981 period, aims at restructuring the industrial sector by increasing domestic linkages in order to achieve a greater degree of economic self-sufficiency.

The principal objective of any special programme for the development of a small-scale sector is to mobilize resources which would otherwise be wasted. On the other hand, the use of local resources could bring about technological development in the rural areas. It creates the material base for reviving the rural arts and crafts and an organic link for assimilating and adopting foreign technology.

A large-scale advanced technology programme is unlikely to mobilise the material skills locally available in the LDCs of Africa. Left to private enterprise and 'foreign enclave' sectors, it may benefit disproportionately a tiny segment of indigenous population to the exclusion of the rest of the population who get just the crumbs of the leftover. Nor is it likely to make a significant impact on the traditional sector which continues to stagnate and rot. The gap between the rural - urban sectors instead of narrowing, widens. The distribution of income is badly distorted.

The more balanced distribution of income may in fact help the development process even in the underdeveloped countries. In any case it is not likely to stifle the production processes. The I.L.O. consultancy mission in its report pertaining to "Alleviating Poverty and Meeting Basic Human Needs in Kenya" stresses that: "satisfying the basic needs of the people is a sinequanon for the success of a growth strategy. This strategy in turn contributes to a pattern of growth which at one and the same time generates adequate productive employment and other income earning opportunities for the poor and results in massive expansion of basic goods and services demanded by them."[12]

It was soon after independence that the Tanzanian Government stressed the significance of small-scale enterprise as a mode of production which would help in balanced regional development and reduce rural-urban inequalities, because of its greater feasibility due to simple technology. In fact at the village level there is a little choice. Given the capital constraint the choice really is between small and cottage industry or no industry at all. President Nyerere reminded his people thus: "Although mass production is the best and cheapest way of meeting the needs of our people for certain types of goods, there are many other where the needs can be best met by labour-intensive, small-scale industries and craft workshops. It is vital that we should increase our effort in this matter, for such activities have the further advantage that they require very little capital investment, and they can be carried on in villages and small towns of our country, thus improving the quality and variety of life in the rural area." The party organ of the government, TANU stressed the need for an institution which would concern itself with the development of small industries in the countries. In its directive on small-scale industries it even specified its functions. It maintained: "This institution should not own or run any industries. Rather, its role should be to render various services."

Even otherwise, small least developed countries of Africa can not afford the luxury of large-scale factory production on their own. For one reason it is highly capital intensive and for another it cannot employ more than a small minority of the potential industrial job seekers at the rate of investment associated with such ventures in terms of their requirements of per worker investment. The small LDCs of Africa are clearly unable to generate the surplus to finance these huge investments and to organize the required supporting infrastructure, and skill development, programme for such discontinuous leaps in technology which would in effect mean a few large-scale plants operating at great cost to society if they are to be financed internally. As a result of that much of the capital for such highly capital-intensive industries is either borrowed or it comes in as private investment from outside. The 'foreign enclave' could thus get entrenched into the structure. Even if such industries are set up in the public sector, the danger remains that its linkages are not internal. Rather, these are located with the economies outside from where the capital and technology is borrowed, unless the technology imported is of 'intermediate variety' within the grasp of the local enterprise to adopt, absorb and recreate it within the country over a short run.

When Tanzania decided to encourage and promote small industry and handicrafts, it was made clear that the criterion would not be the financial rate of return, although financial viability was not totally ignored. In a paper "The Promotion of Craft and Rural Industry in Tanzania", Ian Livingstone writes: "The rate of expansion of the manufacturing sector will be limited by the rate at which the aggregate of the country's development projects create surplus available for reinvestment."[13] Moreover, given the constraint of available funds for investment, the finance available to permit rapid expansion of the small industry programme may depend on its own success in creating surpluses. It may also be noted that "a negative return over any length of time will gradually reduce and eventually end enthusiasm for the project among those influential in allocating funds."[14]

Among the social return criterion for small industry, it is justified as a means of employment creation - a possible solution to employment crisis experienced by several LDCs of Africa. It may further be pointed out that small industry produces a high proportion of consumer goods. It involves simple technical processes rendering it flexible and easier to be located near the consumers. Tanzania aims at making such activities as part and parcel of overall district development programmes. But, it would like to see that the activities of small units are complementary to national industries "to which they will provide and from which they receive inputs".

To stimulate development in all districts, the Tanzanian government established District Development Corporations. They were expected to initiate, encourage and establish small industries within their districts. The Ministry of industries, in conjunction with the Prime Ministers office, encourages the development of small industries by conducting feasibility studies, arranging their financing and seeking markets for their products.

As regards village industries, the villages, under Ujamaa Village Act of 1975, are empowered to initiate and establish industries as one of their most important economic activities. The other promotors at the village level are private entrepreneurs and cooperatives. The Small Industries Development Organization assists them by way of feasibility studies, constructing industrial buildings, and facilitating loans for machinery and equipment and technical training. The objective of encouraging Arts and Handicrafts of Tanzania is to use modern techniques and equipment where the nation has a special advantage.

It is generally alleged that an African is comparatively more prone to a leisure preference. However, Livingstone's case study of the Kisarawe Industrial Estate gives different results. It was found by him that there was a very strong demonstration effect on the supply of effort apparently resulting from working in proximity. Tenants were asked how many hours they normally put in during the week. The results showed that no one put in less than 45 hours a week; 60 per cent put in 65 hours or more, and 11 per cent worked for 75 hours a week or more. "These effects of an independent small-level workshop system" Livingstone rightly points out, "could be regarded as an advantage compared to a factory system where the workers would not normally put in an hour more than what is required under factory legislation." [15] It shows that the demonstration effect on the supply of effort by the workshop operator of the working schedule of his neighbour next door, is found to be very healthy when a cluster of workshops or sheds are provided under one roof of an industrial estate. Moreover, the use of common facilities provided on the estate is shared by all the workshops, a healthy tendency for generating cooperative spirit.

Reverting back to Tanzania's institutional structure for small industry, it may be mentioned that the main instrument for the promotion and servicing of small and rural industrialisation is SIDO - the Small Industries Development Organization. It was established in 1973 under the Act of Parliament, and was largely patterned on the Indian model of the Small-scale Industrial Development Organization - following the now well-known Nanjappa Report of the same year. It replaced the former National Small Industries Development Corporation. It works directly under the Ministry of Industries, and "is responsible for planning, coordinating, promoting and offering almost every form of service and technical assistance to small-scale industry on a national level." The chairman of its Board of Directors is presently the Junior Minister for Industries. That enables it to maintain a direct liaison with the Ministry. Among its various functions is included an advisory function to the planning commission in respect of appropriate long-term industrial strategy for Tanzania.

During its functioning for the last five years it has significantly decentralised its activities. Its organisational chart is appended (Appendix 1). From the chart it will be seen that at the regional level SIDO works through twenty (20) regional extension services, each under the charge of a Small Industries Promotion Officer (SIPO). The SIPO, at the regional level, is assisted by a team of a Technical Officer and an Economist.

As regards the definition of small-scale industry, SIDO, following the governmental guide-line, puts it as "any unit whose control is within the capacity of our people individually or collectively in terms of capital required and know-how". Handicrafts are covered under this definition. But, it deliberately avoids the use of internationally recognised criteria such as the size of capital or the number of employees.

Among the services provided by SIDO are industrial planning by way of formulating and coordinating small industry plans nationally, industrial consultancy by way of assisting in the identification as well as location of small industries, industrial guidance by providing information service on various industries for the benefit of potential entrepreneurs and other promotion agencies, technical services by providing technical and extension service to provide on-the-spot technical guidance to small industrial units and training by way of conducting training schemes in small trades like sheet metal work, woodwork, blacksmithy, bamboo craft and hand-loom weaving, training-cum-production, i.e. on-the-job training to create training and industrial extension nuclei and produce at the same time goods for local consumption; marketing services to enable small industries to sell their products at reasonable prices and exposing them to modern marketing techniques as well as selling their surplus goods in other regions or even in overseas markets through the National Arts of Tanzania.

One other major preoccupation of SIDO has been to develop relevant technology suitable for application in rural industrialisation projects and schemes. Such technology has to be based on the use of natural resources and materials available in Tanzania, to produce the goods to meet the effective local demand, and may be to develop exports too. SIDO does this by attempting to find methods of improving upon existing technology, and the use of labour-intensive techniques by encouraging its own technical staff to develop prototypes which could be used for production purposes. In this respect SIDO locates the countries and institutions from which it borrows technical know-how of relevance to Tanzanian needs. To demonstrate the efficiency of the SIDO developed production process, 'model projects' are organised - for instance open-pan sugar production, cement, hand-made paper, village oil extraction, etc. After its successful demonstration, the project could be passed on to the local authorities for implementation. That way by developing a large number of product profiles, SIDO identifies product for adoption under small and rural industry programmes.

Again, to enable small industrialists to purchase machinery and equipment, SIDO has introduced hire-purchase system. Instead of giving cash loans, credit is advanced to small units on hire-purchase arrangements. It further helps small industry in selling their products to government departments, agencies and parastatals who constitute the single largest buyer of industrial products in Tanzania.

Decentralisation of SIDO Services

In essence SIDO acts as a catalyst in promoting small and village industry. On the whole, SIDO has done well to extend its services into the interior and focus attention on the significance of small-scale and rural industrialisation, by demonstrating several new cheap production processes of direct relevance to the Tanzanian needs. But, it has not as yet penetrated sufficiently deep into the rural areas. So far it has decentralised its organisational structure up to regional level. Not only its regional services need to be strengthened by more technical and extension staff, but simultaneously there is a strong case for its further decentralisation right up to village level. The studies like the one conducted by Wangwe, mentioned above, amply indicate that its extension services have much scope for improvement.

Two reasons are cited for that: (1) The distance between the SIDO regional offices and clients shop/shed sometimes make it difficult for the extension service to do justice to the entire area under the jurisdiction of the regional office, (2) Insufficiency of extension service staff.[16] SIDO will, perhaps do well to seriously look into the question of further decentralizing its technical and training services by considerably strengthening its extension services both in the matter of quality of servi es rendered and the coverage of industrial units. Perhaps it could extend its offices to district level and a few offices could be established in model villages.

Another aspect of SIDO activities which deserves attention is the development of a sound system of sub-contracting for the purchase of the products of small-scale and village industries by government departments and parastatals. At present it seems to be poorly organised and many a time the individuals manipulate to sell products directly to government departments, while the products of other small units remain unsold. The marketing and information services of SIDO also need to be considerably strengthened.

The sub-contracting arrangements in the sphere of production of spare-parts and some small parts required by large industrial concerns also need attention. There should be considerable scope to develop ancillary small industrial units in the vicinity of a large-scale manufacturing factory located in some interior township.

There is, thus, a vast scope of improvement in the efficiency of multifunctional institutions like SIDO by decentralizing their services to see that they do not stop at the urban level but rather stretch sufficiently into the countryside to render effective service to village and cottage industrial units. Similarly, the services provided in the industrial estates - whose success has more or less come to be recognised - could be profitably extended to District level by setting up a cluster of workshops in every district providing centralised services for their surrounding village industrial units.

If SIDO is found to be burdened with more jobs than it can efficiently manage, Tanzania may perhaps like to examine the possibility of establishing a separate organization at national level to be exclusively concerned with village and cottage industries, an organization similar in scope as the one in India, namely Khadi and Village Industries Commission.

T.R.D.B. and R.D.F.

Two other Tanzanian institutions concerned with the promotion of rural and village industries are: (1) Tanzania Rural Development Bank; and (2) Regional Development Fund. However, unlike SIDO in their case only one of their functions is related to promotion of small and village industry. T.R.D.B. is a financial institution which is expected to devote part of its resources to agriculturally-based rural industry and at the same time become an effective centre for advising and assisting in rural project identification and preparation. At the regional level, like SIDO, TRDB also has regional offices with a Regional Loan Committee which is responsible for considering loans applications, within limits fixed by the Board, and advising the Board of other loan applications and rural credit projects. So far the loans extended by the bank to rural and village industry has been a very small percentage of its total loans as can be seen from the table given as appendix 2. It is found that during the year 1976-77, small-scale industry received only 3 percent of its total loan disbursement. However, its share showed a six-fold rise - from 0.48 percent to 3.1 percent - between 1971-72 and 1976-77, thus indicating a healthy trend over the years. Of course, its activities also need a further dose of decentralization and also more consideration for small industry loan schemes.

The Regional Development Fund also grants some attention to small industry needs, mainly those which it finds have not received the attention of other bodies. In this respect it more or less extends loans to small industry as a stop gap arrangement till the attention of appropriate institutions like SIDO or TRDB is drawn to the financial needs of that specific industrial unit. Its funds are highly limited and cannot be stretched much in favour of small industrial activity in the region, although there is scope for further decentralization of its activities.

Vertical and Horizontal Linkages

If the decentralization of services of the multifunctionals is accepted as an operational strategy to promote small and village industry, it is important to build up a kind of inter and intra-linkages between and within organizations concerned with industrial promotion. Such linkages are necessary not only between those institutions which are meant for promotion of small and village industries. For industrial transformation strategy, it is equally important to forge proper relations between instutions concerned with large-scale manufacturing industry, and the ones involved in the promotion of small-scale industry.

Large firms are very often the customers of small units. They find it profitable to leave certain operations to small units as they do not always find them amenable to the economies of large-scale operation. A system of subcontracting develops between the two-wings of the industry. In an open market economy of an industrialized country the system develops its own service to forge the requisite link between the two. In small LDCs of Africa, however, this function could be efficiently attended to by providing an appropriate link between the institutions concerned with large and small industry. Such linkages will also ensure that the relationship between large-scale, small-scale and rural cottage level artisan modes of production is one of complementarity. This is what we would call vertical linkages, i.e., linking vertically different sectors of industrial activity distinguished by their economic scale of operation.

There is yet the need for another kind of intra-organisational vertical linkage. In a decentralized organizational structure of industrial development there can be perhaps nothing more harmful to the cause of rural industrialization than the disregard of well integrated vertical linkage all along the decentralized line of services, with a view to realize integration into overall administrative mechine. Since under the scheme of decentralization the activities of industrial services are spread over much broader canvass and certain amount of decision making is vested in the decentralized organs, it becomes all the more urgent for the central office to forge an intra-organisational linkage system: (a) to keep abreast of what is going on at the Regional, District and Village-level offices and extension services, and (b) to see that the funds placed at the disposal of the decentralized services are put to use, for which they were budgeted for, and that no leaks and creaks were developing for wrongful flow of the funds.

The trouble with the decentralized system is that the evils that plague the system could prove to be cancerous for the whole organism, since under this system each part of the whole functions as a miniature organic whole. The decentralized services, therefore, have to be linked to the parent body by a delicately balanced system of vertical linkages.

Let us now take the case of horizontal linkages. Quite often some multi-functional institutions have some overlapping functions. For example let us take an example of training programmes for industries. Generally speaking, even small least developed countries have national training institutions, either as a part of their university education system or operating as independent bodies under the Ministry of Education. They have their headquarters, or campuses, in the capital cities or some big towns. These institutions sometimes, through their decentralized system, operate training programmes down to the village-level polytechnics. The training could, however, also be a function of a multi-functional institution which offers a package of services to promote small and rural enterprises. While in the industrialized countries and also in quite a few other developing countries, several such institutions work simultaneously, in the Least Developed Countries where the institutional set-up has primarily become a function of the government, it may be useful, because of budgetary constraints, to avoid overlapping functions in such institutions through a system of linkages. For instance, the village polytechnics could be asked to specialise in centralised training, while the training programme of a multi-functional could specialize as an extension service for on-the-spot job training - such as the production-cum-training centres of SIDO in Tanzania. Similarly, short and long-term courses could be yet another method of avoiding duplication in the rendering of training service.

This sort of duplication and overlapping in services is not an unusual feature. Rather it is commonplace in developing countries. For smooth functioning and avoiding duplication of cost-inputs in the service provided by two different institutions, it is again necessary to arrange for proper linkages established between such institutions.

The question arises what could or should be the nature of such horisontal linkages. It can take a variety of forms. In some cases by mere correspondence at relevant levels, between the executive officers of the respective institutions, the problem of overlapping functions could be sorted out. In other cases, the linkage could be provided in the project machinery of a given development programme. For instance, the project manager could achieve his objective by inviting to a meeting table the concerned o.ficers of all the agencies which would be required to provide one or the other service connected with the successful implementation of the project.

But, in some cases a permanent structural linkage may be necessary between two or more sister institutions and government departments, may be at national level or regional level or at both levels. This is with a view to securing efficient execution of an industrial scheme. Let us take an example of credit facilit· for rural industrial programmes. In the light of several such programmes in the backyard of a small-scale industrial development multifunctional, it would be useful to have on its management committee, or say Board of Directors, a member of the management committee of the Bank specially dealing with rural credit. This kind of management-level link is one of the features through which horizontal cooperation and coordination is secured. Even when a new project is still being hatched, the consent of different agencies, like the Ministry, the Funding Bank, the Training Institute, the Export Marketing Agendy and even subcontracting industry or firm, could be obtained and the controversial issues sorted out, at that early stage itself.

This national-level horizontal linkage is particularly important in the successful and efficient functioning of a multifunctional service institution concerned exclusively with the promotion of small and village industry. The small industry in a developing country, and more so in a Least Developed Country, is quite often a victim of unintended in-attention. During its operation the large-scale industrial sector is in a habit of sucking in more than allocated funds in the development budget, because of one or the other contingencies like the presence of inflationary pressures in the economy or under estimated cost in-puts. The result of that is that small-scale industry continues to get a lot of platitudes in theoretical exercises by academicians, and in the speeches of political leaders, including Minister of Industry and his treasury bench colleagues, but in the end it gets left over crumbs. Rural industry is worst hit in this process. To check this it would be better if a permanent member of the Board of Directors of the organization concerning small industry development is nominated on the management boards of the organizations dealing with large-scale industry, and vice-versa, so that there is greater appreciation of one another's problems and needs, and the interests of small industry are safeguarded.

At the regional, district and village-levels, again, it is equally important to forge a permanent horizontal link between the administrative local bodies like Regional/District/Village Development Directorates/Councils, the industry itself, Credit Banks and the decentralized Regional/District/Village offices of the Small Industries Development Organizations. Through such coordinating bodies the chances of successful implementation of industrial projects at different levels - Regional, District or Village - are considerably improved by securing the confidence of all the bodies connected with the project at operational level. It gives to everyone a sense of participation in the industrial development of his regional area. In the absence of such a linkage system there could develop a lack of communication between different agencies concerned with the implementation of the project in one way or the other. That could sometimes lead to avoidable misunderstandings and mutual jealousies which could in turn ruin the prospect of even a good project, otherwise a perfectly viable proposition.

There is yet another reason. Small industrial units often face financial difficulties. Their applications for credit are many a time turned down, either because they are not properly prepared or they are not backed by a viable collateral. Here an important need is to integrate credit facilities with technical assistance. If an extension agency of the decentralized small industry promotional agency has some kind of a horizontal link with the rural development bank or local commercial bank, it could surely intervene on behalf of its viable clients and plead for what is termed as supervised credit. If such an arrangement could work, extension staff could even be authorized to give financial assistance speedily to small units without their having to go through a whole rigmarole of procedural delays.

Another horizontal linkage could be developed between sister extension services operating in different regions and districts. This is with a view to enable them to benefit from sharing each others experiences and problems. This is an example of an intra-organizational horizontal linkage.

Thus, through a system of appropriate institutional vertical and horizontal linkages smooth functioning of an integrated industrial development strategy could be ensured. In the absence of such linkages, the system may collapse under the pressure of red tape, confusion and chaos.

Conclusion and Recommendations

To conclude, the central problem of the LDCs in Africa has been the want of an efficient, internally linked infrastructural system which provides a built-in mechanism for smooth horizontal and vertical mobility of both men and materials. This remained sadly under-developed in most of the sub-Sahara African countries. The LDCs are the worst hit. Unless the economy is suitably interlinked internally, no industrial development through indigenous enterprises can develop substantially. It may continue to remain the function of a 'foreign enclave'. If the industrial sector is nationalised, dependence on foreign technology, foreign funds and foreign high-level manpower would not be halted unless the industrial strategy attacked the roots of underdevelopment. It is true there is a variety of conditions prevalant in the LDCs of Africa, from large and relatively populous countries like Sudan and Ethiopia, to very small and sparsely populated countries like Burundi, Rwanda, Malawi, Botswana, Lesotho, Chad, Dahomey and Gambia. Many of them are land-locked. There cannot be a uniform solution to the problems of their development.

It is a good beginning that all of them are now conscious of the fact that their structures are highly underdeveloped. But the paths of development may vary depending upon the historical and social complexities of different LDCs. But it is important to have a comprehensive industrial strategy. In the past, their development plans have talked about decentralized growth and labour-intensive technologies, but little was achieved.

Industrial transformation through an integrated approach, generally speaking, suits the industrial development requirements of the most of the least developed countries of Africa. At implementational level, it is important to provide adequate institutional infrastructure to ensure fruitful interaction between the organized and presently unorganized informal and small industrial sectors. To achieve that small and rural industrial programmes need a little more forceful encouragement than in the past. This may not be an entirely justifiable proposition on the basis of financial and short-term economic returns where mass scale production techniques of a large-scale factory operation are sure to beat them. But the justification of integrated development approach lies in its long-term impact of building-up internal structures for industrial development by acting as an instrument of interaction between local technology and relevant foreign technology. This is besides their importance in meeting with the immediate urgent requirements of the LDCs, like the employment crisis, use of local raw materials and meeting the basic needs of the rural population. The utility of decentralized industrial programme further lies in more balanced regional and rural-urban development.

Most of the LDCs of Africa have by now established some kind of institutional infrastructure to help in the development of small and rural industry and work for decentralized industrial structure. In some cases their working, to date, has made appreciable impact and refocussed attention on the significance of small and rural industrial development programme. For instance, the Tanzanian case shows some remarkable work done in this direction by the multi-functional institutions like Small Industrial Development Organization (SIDO).

SIDO is a multi-functional which provides almost every aspect of service connected with small and village industries, including the development of project profiles of suitable small industries, pilot projects to demonstrate the success of certain relevant technical processes developed in its laboratories, and the establishment of 'industrial estates'. Yet it is found that urban concentration of industry has not declined. On the other hand, while SIDO has decentralized its services through the establishment of twenty regional offices, its extension service has not sufficiently penetrated the interior rural areas. Its services, therefore, need to be further decentralized and strengthened to achieve the policy goals.

From the Tanzanian case it could be said that there is a case for linking up the programmes of decentralization of industry and rural industrial development with the decentralization of multi-functional institutions like SIDO and TRDB, yet another Tanzanian multifunctional institution concerned with the whole range of rural development programme which provides financial services. The other least developed countries of Africa can learn from the Tanzanian experience. Tanzania in its twenty year long-term industrial strategy beginning with its third five year development plan (1976-1981), is laying stress on the development of basic intermediate good industry.

While Tanzania as a large LDC could perhaps experiment with this strategy in a hope that market for such goods could be found not only within the borders of expanding Tanzanian market, but also in neighbouring African countries with which it would like to forge some kind of trading zone arrangement, this sort of strategy is not likely to suit most other LDCs of Africa. The other LDCs would do well to pursue integrated industrial development strategy as a modus operandi for their 'socio-economic transformation' goals. Even Tanzania has not yet diluted its small industry programme. It views it important for the development of internal structural linkages, a vital factor in any scheme of structural breakthrough. A further decentralization of SIDOs services is on cards. It has further liberalized its earlier comparatively rigid policy with regard to the operation of private enterprise in the development of small and rural-oriented industry. It is an indication of its willingness to combine pragmatic and ideological approaches to the development programmes. The LDCs, as mentioned before, may follow different paths of development depending upon their respective socio-economic backgrounds and specific development needs. But, some amount of experimentation in their development programmes would be unavoidable. The need for decentralisation of their multi-funtional institutions with a view to make their functioning more effective in the rural oriented industrial development programmes is widely felt by almost all the least developed countries of Africa, and many other developing countries in general.

The decentralization of services of the multifunctionals must, in turn, be accompanied by appropriate horizontal and vertical linkages to achieve the objective of integrated institutional set up for industrial development. By vertical linkages is meant to establish purposeful and fruitful relationship between large-scale, small-scale and rural-level modes of production to stress the element of complementarity in their functioning. It would also impl intra-organizational linkage in a decentralized multifunctional institution with a view to realize integration into overall administrative machine.

The horizontal linkages are established between institutions which might have some overlapping functions. Another example of a horizontal linkage is some sort of coordinating arrangement between administrative organs on the one hand and service institutions on the other at all levels - national, regional, district and village. This would greatly help in the successful implementation of industrial projects at different levels, and is vitally important for rural industrialisation programmes in the LDCs. Yet another useful horizontal linkage is intra-institutional links between sister extension services of a multifunctional with a view to benefit from each others experiences. Thus, the working of appropriate vertical and horizontal linkages could ensure smooth and efficient functioning of an integrated industrial development programme of the Least Developed Countries in Africa.

Finally, how could U.N. agencies like UNIDO, UNDP and UNESCO be helpful in achieving the objectives of securing decentralization of multi-functionals.

The two major lacunae in the efficient functioning of the multifunctional institutions have been the funds and manpower. For a programme relating to decentralisation and strengthening of the extension services of the multifunctionals concerned with rural industrialisation programmes, the LDCs are bound to need more staff of relevant qualifications and experience, as well as equipment for extending the 'industrial estate' programmes and the creation of 'workshop clusters' in rural areas. The UNIDO could surely help them out with grants or loans to implement such programmes. It could also help in identifying the countries from where the relevant technical personnel and equipment could be obtained. Tanzania, for example, found the Small-scale Industries Organisation in India as a useful model for its needs.

Similarly, the institutional infrastructure of the Khadi and Village Industries Commission of India may be found as a useful model by some other LDCs of Africa. UNIDO and UNDP could thus help in the study of the relevance of small industry organisation model of some relatively more advanced developing countries for the LDCs of Africa.

The organizations like UNESCO could perhaps finance a programme like decentralisation of the centralized training institutions for industry by providing experts like professors and teachers with relevant experience.

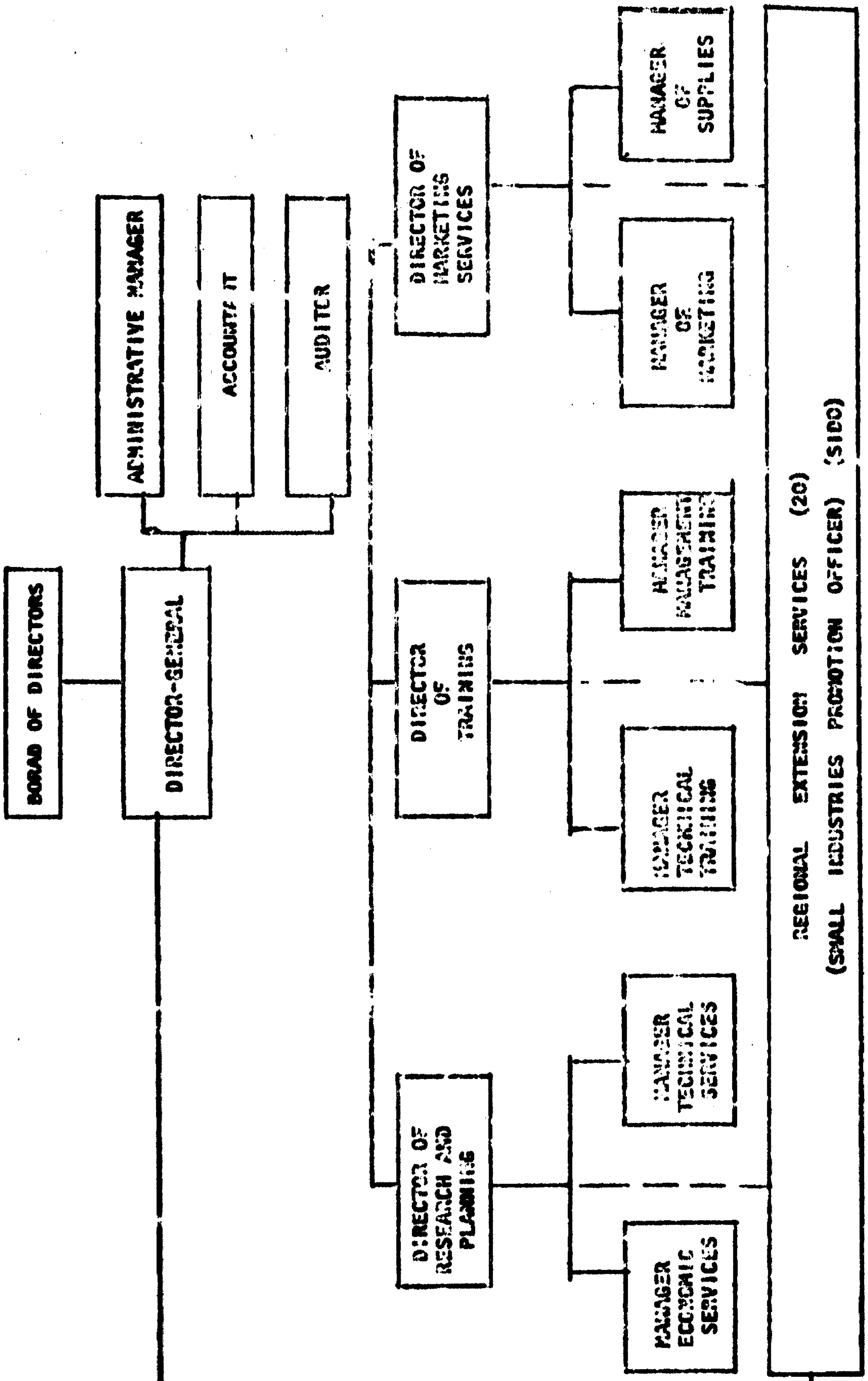
The expert guidance in the organisation of decentralisation could be provided by the already existing UNIDO/UNDP services of providing industrial advisers. In the LDCs of Africa where such advisers are not yet provided, it will be worthwhile to examine the matter and strengthen this very useful service.

The World Bank and I.L.O. could also help in the programmes like this.

Appendix 1

THE ORGANISATIONAL CHART OF THE SMALL INDUSTRIES

DEVELOPMENT ORGANISATION (SIDO)



DISTRIBUTION OF LOANS APPROVED IN THE PERIOD 1971/72 TO 1976/77 ACCORDING TO TYPE

Years	1971/72		1972/73		1973/74		1974/75		1975/76		1976/77	
	value shs. mil.	%	value shs. mil.	%	value shs. mil.	%	value shs. mil.	%	value shs. mil.	%	value shs. mil.	%
1. Seasonal Inputs	20.98	58.7	61.9	57.6	85.9	53.3	141.8	70.1	38.4	38.0	52.93	68.4
2. Farm Machinery	1.0	2.8	2.0	1.9	1.3	0.8	4.05	2.0	1.0	1.0	0.29	0.3
3. Rural Transport	6.56	18.4	8.6	8.0	30.4	18.9	15.7	7.8	1.14	1.1	5.24	6.3
4. Storage	5.3	14.8	1.9	1.8	0.4	0.3	0.2	*	1.4	1.4	0.67	0.9
5. Farm Development (Crop Establishment)	0.95	2.6	24.5	22.8	12.8	8.0	0.1	*	-	-	0.50	0.6
6. Livestock	0.48	1.4	7.8	7.2	25.8	16.0	37.6	18.5	57.7	57.7	14.73	19.0
7. Small Scale Industry	0.47	1.4	-	-	2.7	1.7	2.7	1.3	0.85	0.8	2.40	3.1
8. Fisheries	-	-	0.86	0.8	1.3	0.8	1.1	*	*	*	0.57	0.7
Total (1)	37.74	100.0	107.56	100.0	160.62	100.0	203.25	100.0	100.49	100.0	77.33	100.0

* Negligible

(1) Discrepancies are due to rounding.

Source: Tanzania Rural Development Bank, Annual Report and Accounts 1st July 1976 to 30th June 1977.

Appen

Foot Notes:

1. The report of the 1969 Group of Experts referred to Least Developed Countries as being "at a very early stage of economic and social development." The General Assembly of the United Nations Organisation vide its Resolution 2768 (xxvi) of 1971 endorsed a list of 25 "hard Core" least developed countries of the world as supported by the Committee of Development Planning. Of these 25 countries, 16 are located in Africa, namely: Botswana, Burundi, Chad, Dahomey, Ethiopia, Guinea, Lesotho, Mali, Malawi, Niger, Rwanda, Somalia, Sudan, Uganda, United Republic of Tanzania and Upper Volta.

2. The least developed countries of Africa are the weakest link in achieving the objective of African self reliance. The Economic Commission for Africa and the United Nations Industrial Development Organisation have held several expert group meetings and seminars relating to industrialisation in African countries with special reference to small scale industry, including measures for tackling technical, financial and institutional problems related there to. Reference may be made to ECA/OAU Conference of Ministers of Industry, of March 1971, followed by Expert Group Meeting of December 1971, Seminar on UNIDO operations for the least developed countries in Africa, January-February 1973, and the UNIDO Inter-Governmental Expert Group Meeting on the Industrialisation of the Least Developed Countries, Vienna, November 1976.

3. See E.C.A, Industrial Policies: Critical Areas of Action for Accelerated Industrial Development in Africa in the 1970s, CMI/INR/SP/2, 18 March 1971.

4. loc.cit.

5. This structure could be attributed to the colonial system. The metropolitan countries were mainly interested in their colonial territories as sources of raw materials and markets for their manufacturers. The industrial base was created at home. That had resulted in the development of mainly cash-crop agricultural or mineral extracting economies in their African colonial territories leading to the disintegration of their traditional economic base

and the decade and death of the indigenous technologies in several of their African colonies. The urban areas and the communicational infrastructure that was subsequently developed was, therefore, almost totally oriented towards external metropolitan need and requirements, and naturally became heavily dependent on outside world technology and outside finance. There were hardly any internal linkages and industrial development was minimal, and where it made some progress, it was mostly linked to metropolitan manufacturing sector. The present LDCs of Africa had in the past received the least attention, even in that respect, may be because of their geographical location (land locked territories) or geo-political reasons. In the least developed countries, the share of industrial capital in total production is generally significantly below the expected "normal pattern" - which according to Professor Chenery is closely associated with income per capita, see Chenery, "Patterns in Industrial Growth" American Economic Review, Sept., 1960.

6. See Percy Selwyn, "The Least Developed Countries as a special Case", World Development, Vol. 2, Nos. 4 and 5, April/May 1974, pp. 35-42.

7. See J.F. Rweyemamu, The Historical and Institutional Setting of Tanzanian Industry, University of Dar es Salaam, E.R.B. Paper No. 71.6

8. Ibid.

9. David Philips, Industrialisation in Tanzania: Small Scale Production-Decentralisation and Multi-Technology Programme for Development, University of Dar es Salaam, E.R.B. 76.5, 1976.

10. See J.F. Rweyemamu, Under development and Industrial Development in Tanzania O.U.P., 1973, and the Historical and Industrial Setting of Tanzanian Industry, E.R.B. 71.6. Clive Thomas (ex-University of Dar es Salaam) The Transition to Socialism, 1972.

Thomas draws two 'laws' of economic transformation, arising from his analysis of dependency. His first law concerns the need for convergence of resource use and demand, and in the second the convergence of needs with demand. His dependency analysis has three elements:

(1) Reliance on foreign technology, (2) The critical role of foreign decision making in the industrial and other income earning sectors, and (3) Reliance on foreign finance, materials and equipment resulting in persistent income and capital drain overseas. Under Thomas' strategy, it is vital to forge a link between resources and needs. Two types of industrial set ups in Tanzania are, therefore, recommended: (i) Those producing essential consumer or wage good - mainly within food, clothing and housing fields, and (ii) those producing basic capital and intermediate goods - most essential as inputs into domestic agriculture and manufacturing, using local materials.

The strategy stresses the selection of a core of industries central to the technological development processes. It is opposed to 'comparative advantage' strategy advocated by neo-classical economic theorists who favour the establishment of processing industries as export earners to provide funds for setting up further light industry, while capital goods would, under this scheme, be imported. It is believed by 'transformation' school that this strategy does not attack the root of under-development. Rather it is built upon the system of under-development itself.

The Thomas-Rweyemamu strategy, on the other hand, leaves many questions of detail unanswered. According to David Philips it is silent on the minimum economic scale for such industries. If it is going to be large-scale, which it is likely to be, then initial reliance on foreign technology cannot be avoided. See David Philips, op.cit., pp. 25-27. Philips has a point as Small LDC like Tanzania may find it difficult to come out of this 'reliance' business for a long time to come as it generates its own 'motor force', unless there are built-in checks and balances introduced in the system. A small country of Tanzania's size has a disadvantage of small internal market both present and potential. The basic capital goods industry cannot avoid a certain 'minimum scale' factory production, and Tanzania may find it difficult to provide sufficiently large market for it on its own, unless it can plan exporting a part of its products to make this industry economically viable proposition.

The bigger countries like India and China with a very large potential internal market for basic capital and intermediate industry are in a different class, and have no such constraints.

11. S.M. Wangwe, "Decentralisation and Rural Industrialisation: A Case for Small Scale Industry," Type script for <u>Decentralisation Research Project</u>, University of Dar es Salaam, Nov. 1976.

12. See I.L.O. Consultancy Mission Report by Dharam Ghai, Eric Thornbecke and Martin Godfrey, <u>Alleviating Poverty and Meeting the Basic Human Needs</u>.

13. Ian Livingstone, <u>The Promotion of Crafts and Rural Industry in Tanzania</u>, University of Dar es Salaam, E.R.B. 70.1, 1970, p. 3.

14. <u>Ibid.</u>

15. <u>Ibid.</u>, p. 17.

16. Wangwe, <u>op.cit.</u>

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche

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