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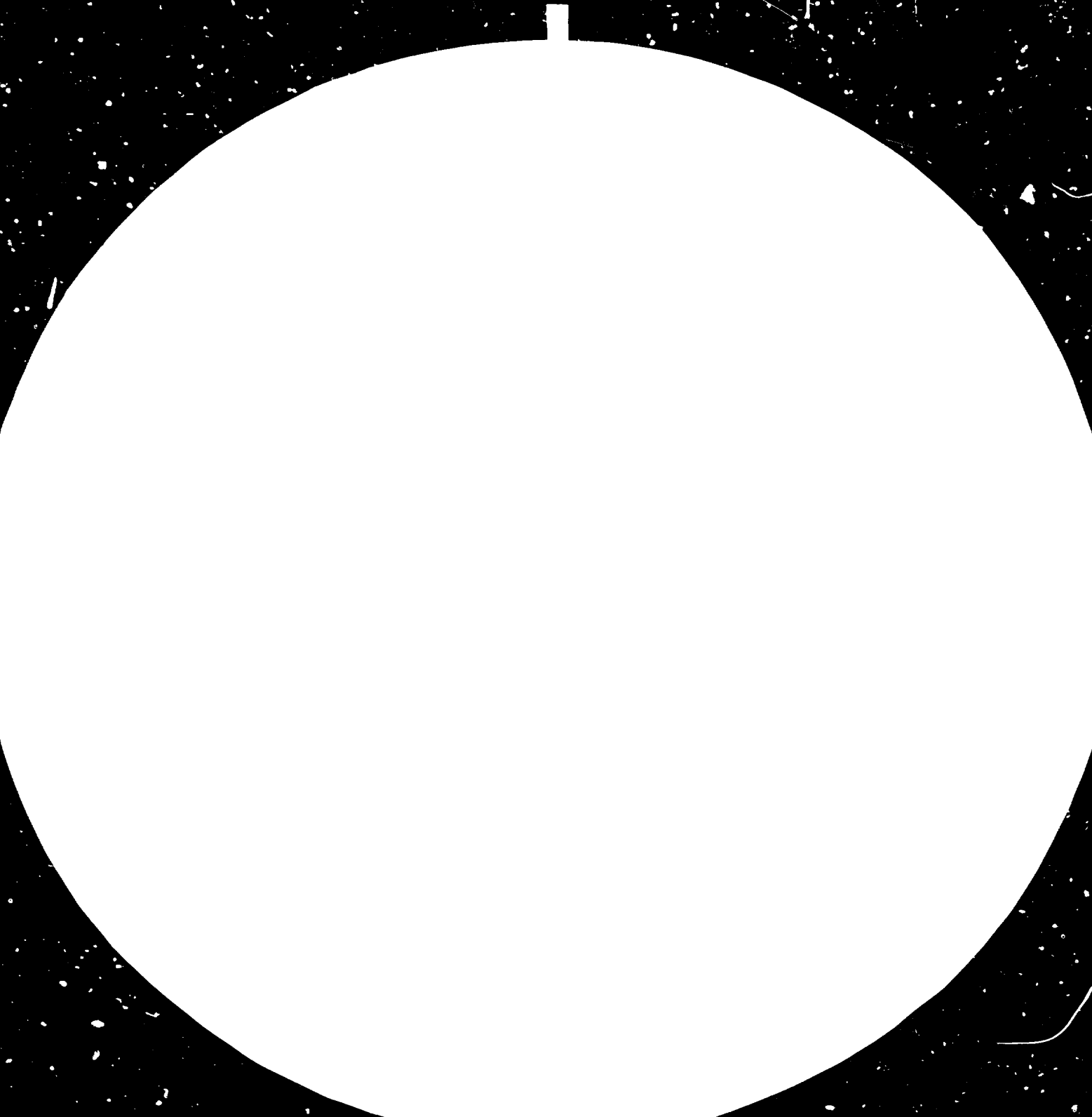
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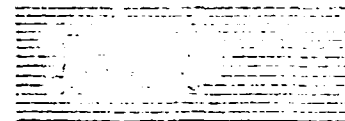


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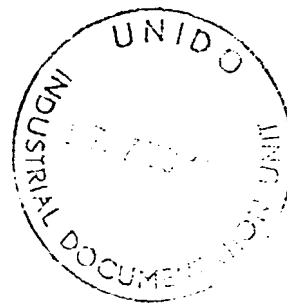
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INSTITUTIONAL REQUIREMENTS
FOR INDUSTRIALIZATION OF RURAL AREAS *

by

C.T. Thomas **

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** The author is presently Chief Economist with the Tanzanian Small Industries Development Organization.

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I. AIMS AND SCOPE OF THE PAPER

This paper has been prepared for the ensuing Expert Group Meeting on Institutional Infrastructure for Industrial Development in the Least Developed African Countries. Specifically discussions in this paper are concerned with the institutional requirements for industrialization of rural areas.

The United Nations General Assembly in April/May, 1974 adopted a resolution entitled "Declaration on the Establishment of a New International Economic Order" which aims at reducing the widening gap of development between the developed and the developing countries. This was followed in March, 1975 by what is now known as the "Lima declaration" which inter alia states its "firm conviction of the role of industry as a dynamic instrument of growth essential to the rapid economic and social development of the developing countries, in particular the least developed countries". The Lima declaration further emphasized the need for promoting agro-based industries and small-scale industries for furthering self-reliance and increased well-being to the vast rural populace of the developing countries. The focus of this paper is based on the intentions thus set out in these international efforts.

Most of the developing countries have come out of their old colonial past and are now experiencing the "new order", in all its facets of development. An important area of concern is, how benefits of development can be provided to the majority of people who are now in villages. Thus in one way or other, these countries have taken up the instrument of rural industrialization as a means to this end. Among the inputs necessary in working out such a mechanism, institutional facilities and their functioning play a predominant part. This paper therefore attempts to analyse the required institutional arrangements, the context and performance of existing ones especially the problems faced in reaching the desired goals and suggest measures for an improved system from the experiences felt so far. This paper however does not suggest models as such, as situations and objectives differ from country to country. For the purpose of illustrations and for arriving at conclusions, the experience of Tanzania and to some extent of Kenya among the East African countries are depended upon. For highlighting the basic functions of

some of these institutions experiences from Asian countries, especially India have been taken into consideration where the situations of development are the same.

II. THE CONCEPT

Ever since Mr. Schumacher wrote "Small is beautiful", the concept of rural industrialization has taken on new dimensions and has given rise to much debate. It is a theme which can be felt but not clearly understood, even though it has its vital significance in the programmes of development of all the developing countries. Distinction is made between the social and economic significance of the theme so as to give it a meaning and urgency. Science and technology are taken in different perspectives so as to provide justification to technology levels. Macrobie's commentary on advanced technology is very illustrative. "While there is something absolute in science, so that it can be rightly said that anything less than the most advanced is backward, there is (in this sense) nothing absolute in technology, which, to be fruitful, must fit the actual economic and social conditions within which it is intended to operate, and it cannot be said the most advanced is in all conditions necessarily the best". We get programmes in India with the caption "more with society than with science". Authors have made out subtle differences between rural industries and industrializing of rural areas. The latter refers to only locational factors and thereby refers to any type of industry that is geographically situated in rural areas, while the former one has certain characteristics based on: the procuring of agricultural based raw materials from villages, size of the unit, degree of mechanisation or no mechanisation, labour intensity of the operation, use of power, and the nature of the market which the products from this unit meets. As mentioned above, there is a distinction when we characterize an industrial unit as rural. The degree of "ruralness", no doubt varies from country to country and even sometimes within the country itself.

Industrial institutions are described with clarity in Mr. Laurence L. Barber's report on "Institutional Infrastructure for Industrial Development" submitted to UNIDO (UNIDO/ICIS:36 dated 26.6.1977).

"If industry is to grow and operate productively it must not only be planned and protected; it must also receive a variety of infrastructural supports. Some are physical. Others are part of the country's general economic and social structure. Still others are institutional consisting of organized promotional, servicing and regulatory activities, both technical and administrative, which can foster and improve the development of industry. Industrial institutions are never ends in themselves. They have reason to exist only as they meet the demands of existing industry and are tools for policies of industrial development".

We often find duplications and overlappings in the functions of the institutions, often leading to inefficiency in performance. While taking an integrated look at these institutions as a whole in a country, we often find gaps in their service system which is the result of duplications. Mr. Barber gives interesting insight into the formation of institutions in some of the countries, some are accidental while others are deliberate and in many instances they just stand as prestigious organizations without clear cut functions.

When we come to the institutional set-up for a programme of rural industrialization, the whole organization becomes very complex and often difficult to assess. Rural industries for the purposes of this paper refer to industries located in rural areas which cover the following types:

1. Factory type small-scale units as defined according to each country.
2. Non-factory type industrial units as follows:
 - (a) Tiny small units having no factory organization
 - (b) Cottage based industrial operations
 - (c) Artisan type units including handicrafts
 - (d) Servicing units having no finished product such as repair workshops, tailoring units, processing units including agricultural products like maize mills and metal finishing.

A clear cut distinction from one category to another is often thin and difficult. However most of the countries have their own definitions of small and large industries based on capital investment, labour employed, use of power or not, technology used, access to markets, either one factor as a base or combined. All these coming within the above category are referred to as rural industries in this paper.

Many of the developing countries have a random collection of institutions and do not have a rational and comprehensive structure. Some of the functions could be enumerated as under:

1. Provide technical, managerial and economic know-how and consultancy
2. Provide worksheds (industrial estates) machinery and raw materials on easy instalment basis
3. Provide finance for specific projects
4. Provide transfer and development of technology
5. Provide training for manpower and skills required
6. Provide promotional services to new as well as existing industries which are administrative in nature like licencing, foreign exchange clearance, negotiations with foreign donors, planning, co-ordination, etc.
7. Establish, monitor and operate standards and quality control including provision of tests and inspections
8. Manage assigned projects either as pilot projects or on a permanent basis
9. Provide market research and marketing facilities.

III. NEED FOR INDUSTRIALIZING RURAL AREAS

A. GREATER SPREAD OUT OF THE BENEFITS OF DEVELOPMENT

The striking feature of the developing countries of Africa is that the majority of its people are living in villages. The development pattern inherited from colonial days had been tilted towards a few cities and towns which function as oasis in a desert even though the comparison cannot be uniform. 1967 census provide the following data for Tanzania:

<u>TABLE I</u>	<u>No. in</u> <u>Millions:</u>	<u>Percentage to</u> <u>total population:</u>
1. Non-urban or rural population	11.54	93.7
2. Population of Towns (urban)	0.63	5.5
3. Population of former Townships	0.09	0.8
	12.31	100.0
	=====	=====

Source Census of Population 1967.

It will be further seen that the population concentration among towns is uneven with Dar-es-Salaam, accounting for a major share of population.

TABLE II

<u>NAME OF TOWN:</u>	<u>POPULATION:</u>	<u>ALL TOWNS POPULATION:</u>	<u>TOTAL POPULATION:</u>
1. Dar-es-Salaam	272,821	40.2	2.2
2. Zanzibar	68,490	10.1	0.6
3. Tanga	61,058	9.0	0.5
4. Mwanza	34,861	5.1	0.3
5. Arusha	32,452	4.8	0.3
6. Moshi	26,864	3.9	0.2
7. Morogoro	25,262	3.7	0.2
8. Dodoma	23,559	3.5	0.2
9. Iringa	21,746	3.2	0.2
10. Kigoma	21,369	3.1	0.2
11. Tabora	21,012	3.1	0.2
12. Mtwara	20,413	3.0	0.2
13. Musoma	15,412	2.3	0.1
14. Lindi	13,352	2.0	0.1
15. Mbeya	12,479	1.8	0.1
16. Bukoba	8,141	1.2	0.1

Source - Census of population 1967.

Dar-es-Salaam has a very heavy concentration of industries followed by Arusha, Mwanza, Moshi and Tanga. It has been the concerted effort of the Government of Tanzania to disperse industries especially to other parts of the country. This has been sought to be achieved by locating a few large industrial units which are just a handful and which have long gestation periods. Hence during the third year plan Government proposes to set up plants or expand the following sectors:

Spare Parts and Capital Goods

Bicycle Project

ALAF Expansion

UEUNGO Expansion

Mocya Farm Implements

Motor Vehicles Assembly

Wire Cables

Iron Smelting

Chemical Industries

Pharmaceuticals

Detergents

Paints

Pyrethrum

Natural Gas

Petroleum Refining

Wood and Paper

Pulp and Paper Mill

Printing Press

Non-Metallic

Cement

Food Processing

Sugar

Tea

Fruit Canning

Meat

Milk

Live Stock Products

Beverages

Cashew Nut Processing

Textiles and Garments

Expansion of existing mills and new mills at
Musoma, Morogoro, Tabora, Mbeya, Ubungo, etc.

Shoes and Leather and Leather Goods:

Expansion of Moshi Tannery, Morogoro
Complex, Kwanza Tannery

Sisal Processing

Expansion of existing plants.

Source - III Five Year Plan - Government of Tanzania.

This pattern of growth cannot adequately give full benefits to the vast population in the interior. The Government of Tanzania is fully aware of this and hence the programme of industrializing rural areas through the vehicle of small industries using low capital and simple technologies has been taken up.

As a result of sustained and systematic efforts made by the Government of Tanzania the contribution to G.D.P. from the industrial sector has been considerably increased.

TABLE III (IN MILLION SHS.)

<u>YEAR</u>	<u>MANUFACTURING SECTOR G.D.P.</u>	<u>PERCENT ANNUAL CHANGE:</u>	<u>T O T A L G. D. P.</u>	<u>PERCENT OF MANU- FACTURING SECTOR TO TOTAL G.D.P.</u>
1967	571	8.7	6,735	8.5
1968	648	13.4	7,182	9.0
1969	742	11.4	7,460	9.9
1970	828	11.5	8,215	10.1
1971	937	13.1	8,845	10.6
1972	1,159	23.6	10,130	11.4
1973	1,332	14.9	11,531	11.6
1974	1,482	22.2	14,010	10.6
1975	1,774	19.7	16,988	10.4
1976	2,047	15.4	20,354	10.1
1977	2,416	18.0	25,048	9.6

Source - Annual Economic Surveys.

As a result of this increase, production of goods has increased considerably. Industrial output at current prices increased from shs. 2,047 million in 1976 to shs. 2,416 million in 1977 registering an increase of 18%.

Value added production increases in selected industries:

	(Value added in shs.000)	
	<u>1965</u>	<u>1974</u>
1. Food processing	75,202	227,566
2. Beverages	13,670	58,682
3. Tobacco	-	82,545
4. Cotton Textile	21,164	198,654
5. Wearing apparel and shoes	8,641	39,213
6. Leather	3,770	22,121
7. Wood Products	16,499	20,399
8. Furniture	3,836	20,960
9. Paper, Printing and Publishing	7,462	58,879) 15,076)
10. Chemicals	17,367	161,361
11. Rubber products	1,525	43,614
12. Metal and Metal Products	34,454	57,606
13. Non-metal Products	3,397	36,294
14. Motor Vehicles and Transport Equipment Assembly	6,186	43,632) 31,341)
15. Others	<u>6,339</u>	<u>38,709</u>
	215,234	1,156,652
	=====	

Percentage increase of production over the period was 437.4%

Source - III Five Year Plan, Government of Tanzania

Apart from the fact that the production recorded above is not adequate enough to meet the growing needs of the people from a per-capita point of view, the question often asked is "how far these benefits percolated to the vast rural masses?" Especially with the vastly undeveloped transport system, the answer is not very encouraging. The prosperity of the agricultural sector and the tremendous purchasing power with peasants as a result of remarkable expansion in cash crops like cotton, coffee, tea, tobacco, cashewnuts, sugar cane, oil seeds and pyrethrum, created a critical gap to meet the increasing consumption needs of the people.

The need for a new look at the strategy of industrialization has been lucidly stated by President Nyerere in the following words:

"In the past we have often made the mistake of taking large loans to buy machinery required for producing the sophisticated products needed for export and then using the machines to produce the simple goods we need for ourselves. This is wrong ... We must look at our real needs and then see how far they can be met by the use of labour and simple machinery disregarding the methods used in Hamburg, Tokyo, Toronto or Detroit All our villages will, sooner or later, require simple wood and metal repair workshops for ploughs, bicycles, milling machines and so on. This need to use technology which is appropriate to our needs and which we can afford cannot be emphasized too strongly. We need to expand our agricultural output. But we cannot afford to depend upon tractors to do it with. Tractors are quite complicated machines and have to be imported, they cost ever increasing amounts of foreign exchange. But we have within the country something like 15 million heads of cattle. And we can afford to buy oxen - ploughs - indeed we are making them. We need to transport the crops and other things we produce in the villages from one place to another. But why do we need to think in terms of lorries, when the goods are being moved a few miles? Donkey or oxen carts could carry the crops. - The villagization policy now makes it easier for us to advance through technologies appropriate to self-reliance". (Extract from his speech in the closing session of the third parliament).

B. UTILIZATION OF RESOURCES

The inadequacy of the pattern of concentrated and centralized large-firm production outlook in developing countries of Africa needs no emphasis. Untapped resources against which ironically, poor communities eke out uneconomic levels of sustenance, are plentiful in these countries.

For example, Tanzania at present does not have enough of food grains, having had a bumper crop in maize and paddy. They are piled up in village yards. Is it possible to process these grains only through a handful of large mills involving heavy transport costs? or is there not a better way to provide villages with small grain mills, thus augmenting the rural value added content of production. The same

argument stands valid for cash crops even though in a lesser measure due to technological limitations.

Tanzania has abundant resources in minerals like clay, gypsum, lime, dolomite, soft stones, kaolin, fullers earth, mica, coal, salt, quartz, glass, sand, calcite among others, not to mention iron ore, diamonds, natural gas, silver and tin. These minerals have a big say in the every day life of people, while some of the very minerals which are processed are imported for industrial uses under brand names. To cite one example gypsum is not used merely for the manufacture of cement but is required as plaster of paris in hospitals for moulds, and also for making chalks. Lime can be calcined in a small kiln made out of bricks right at the place where it is mined by using local fuels. In short, there are multiple means of utilizing this wealth by the village through appropriate technologies of production. Hence there is need for introducing simple techniques of production at rural levels to utilize these resources not only to increase the rural income but also to meet the critical needs of the large industry sector itself. The Government of Tanzania has taken successful steps to introduce a variety of these technologies in the villages like: lime kilns, brick making, village pottery, fruits and vegetables preservation, production of methane gas out of animal waste, building materials from alluvial soils and lime, etc.

The position of other developing countries as far as utilization of these resources is concerned will definitely call for an approach to utilize them at rural levels (technology) and at rural locations.

The utilization of skills and upgrading them in rural locations to meet the increasing needs of the people provides a strong argument for a programme of rural industrialization. These skills are available in the form of cobblers, blacksmiths, carpenters, brick makers and those engaged in handicrafts. To cite the case of Tanzania again, a recent survey revealed that there are around 800 cobblers who are making leather goods in various regional locations. A better programme would entail mobilizing them for effective production of goods for the rural masses.

C. BETTER INCOME DISTRIBUTION

Economists all over the world have increasingly realized the misleading meaning of the per-capita income even though it is an effective tool to assess economic progress. Nevertheless, the uneven nature of this income distribution among regions has been the cause for much social and political instability. Even if agriculture is prosperous, it leaves the peasant idle during off season. And yet the situation in many of the developing countries is that there is a need to supplement the income of the farmer. For this purpose it is necessary to introduce labour-intensive methods of production which require less capital and know-how intensity. For a balanced growth of the economy and developing backward areas an integrated programme of rural industrialization is a "must". Hence many of the developing countries are taking up programmes beyond the metropolis in so-called "unviable" tracks even at a cost to meet this dire need.

D. THE DEVELOPMENT ETHOS

Either by deliberate policy or by evolution of circumstances most of the African countries have been working out development models which have their socio-political meaning. In other words they are "coming into their own". Developmental efforts are undoubtedly so designed as to give maximum benefits to the people and also to make them effectively participate in these endeavours. In the context of this historic growth, industrializing areas through a few large industrial units cannot hold on for long, as it makes the people non-participatory in outlook. Hence in countries which have adopted grass-root planning, the development of villages has a pivotal place in the entire scheme of planning.

For example, Tanzania has taken to integrated rural development which is based on socialism and self-reliance. The entire country is being organized for planning purposes into Ujamaas or in other words Village Communities which are legal entities. The entire developmental activity will be not only around these village governments but will emanate from them and for them. Benefits will be shared by the Community members in common. So far 7,000 such villages are registered and plans are devised to bring them to active participation in national efforts of

development. In this integrated approach, the rural industrialization programme is an effective ingredient.

The model for other countries, not have this much element of decisiveness and responsibility. By and large, the need for making the rural masses participate in their development is a felt need, applied to varying degree by the developing countries of Africa.

E. RURAL EXODUS

Even though unemployment on a large scale is not very discernible in African countries, they however experience the migration of rural people to towns and cities. This results in dislocation and temporary unemployment. Many of the African countries want to install a development system in which the greater geographical area that is rural, is made attractive and to a great extent self-contained. The traumatic experience of many developed countries in this regard has been a strong lesson, which they want to avoid. Countries like Tanzania have already begun experiencing this problem. A strong element of appropriate industrialization and vocational involvement through a programme of rural industrialization is taken as a remedial programme in this context. Through this approach full employment is attempted at the village level itself.

F. LIMITED MARKETS

The need for a programme of rural industrialization in countries like India, Bangladesh, etc. has been felt because of heavy population pressure. The logic for such a programme especially in the use of small capacity technologies in African countries is due to their limited markets. "Mass production pattern" becomes difficult unless there are assured export outlets. Hence they have to resort to production for masses, through the development of small-scale and rural industries.

G. PROMISING EXPORT MARKETS FOR HANDICRAFTS

There are certain traditional handicrafts which are dependent on indigenous skills which have ever increasing export markets in developed countries. This is the case with Makonde Carvings of Tanzania, export

of which alone was to the tune of shs. 2,000 million in 1977-78. Other handicrafts which have export appeal are ivory carvings, wood products, mat weaving, cork and other fibre products, bamboo items, tie and dye textiles to quote a few. Development of these rural industries gives its own benefits to the national economy. Hence a programme of developing handicrafts through various promotional means has been taken up as separate measures in various countries.

IV. INPUTS AND THE PLACE OF THE INSTITUTIONAL SYSTEM

A. INPUTS:

Inputs required for a successful programme for industrializing rural areas could be enumerated as under:

1. Rural industrialization is often termed as a movement and not as a programme. This underlies the need for active political support to the programme which alone will ensure adequate mobilization efforts and give correct orientation to the socio-economic goals set for achievement. In other words the bureaucrat cannot provide the setting and the inspiration however efficient he may be. This leads to the clear cut government policies giving the required emphasis to the programme of rural industrialization.
2. Infrastructure (roads, power, water, etc.) for a large-scale unit is built into the project itself. Rural units will come up only if infrastructure is available. Hence, rural units are taken to growth points where these infrastructures are available. They not only relate to utilities required for the projects but such facilities like health centres, banks, etc. which are required by rural people.
3. Correct planning and a programming mechanism should be available. This alone will give linkages to the national institutions. An integrated approach is different from a one tier approach, the former takes entire rural development as a whole.
4. Mobilization of efforts is essential for this programme. Many attempts have failed because the beneficiaries were disinterested recipients who either did not have anything to contribute nor moti-

vations to appreciate the programme. It is not the amounts invested in the programme alone that bring results but enthusiasm generated, has a big say in the matter.

5. Finance is undoubtedly a basic requirement. This may be loans or grants. The developmental outlook of the financial institutions is a crucial factor.
6. Know-how must be made available. The place of appropriate technology, and its development and implementation are significant to success.
7. Worksheds could be in the form of individual sheds or in clusters. The latter is popularly known as industrial estates.
8. Skills must be made available. This involves a comprehensive training programme and such other techniques to develop skills like Training -cum-Production Centres.
9. Research and development of prototypes.
10. Economic services in the form of surveys, project identification, write-ups, feasibility studies, etc.
11. Management guidance and counselling.
12. Arrangements for quality control, formation of standards, testing facilities.
13. Marketing assistance as well as market research information.
14. Various types of incentives like concessional interest rate subsidies on investment, and equity participation, exemption from taxes, relaxations from customs and import duties, transport subsidies especially on bulky raw materials, payment of loan on easy instalment basis with grace period, outright grant for project preparation work, concession in power rates, price support, reservation of purchases from rural units, etc.
15. Adequate Institutional arrangements for administering the above facilities.
 - (a) Policy
 - Rural Industries Boards/
Regional Committees.
 - (b) Programme
 - Extension Organizations
 - Implementation
 - multifaced or single faced

- (c) Co-ordination - Existing Organizations and providing linkages
- (d) Accountability and targeting - Each institution's role and functions to be defined and overall targets should be fixed.

B. PLACE OF INSTITUTIONS

Laurence L. Barber (quoted earlier) emphasizes the need for institutions as under.

"All countries do have, however, a mass of organized action intended to provide specific support to industry. This support is carried out through a variety of institutions which participate in the process of transforming a government's economic hopes into operational industrial plants producing capital and consumer goods. Those projects and actions require instruments of persons and other resources to carry them out. These resources must be organized, in a form which we call institutions. Thus, the ultimate tools of the entire process and of economic development as a goal, are these implementing institutions".

Types of institutions and their various goals have been mentioned already. Most of the developing countries in Africa have one or more of these institutions. They are very much conditioned by the developmental goals set out by these countries. We shall now analyse the framework and effectiveness of these institutions and how far there is need for change, if so, in what direction?

V. PRESENT APPROACHES

In this section cases of Tanzania, Kenya and Botswana are described for the purpose of giving a feel to the ensuing discussion. Elaborateness of the case depends on the material that was available to the author.

TANZANIA

Tanzania has been experimenting with rural industrialization and building institutions ever since it became independent. To start with, a number of cottage industry projects were handled by the Ministry of Commerce and Industry. As a programme, this lacked cohesion and it was more or less a collection of a few projects. In 1967, the National

Small Industries Corporation was launched to deal with not only projects but also to provide assistance of a general nature. However the efforts of this Corporation resulted in the establishment of workshops, thereby retaining the character of a "projects managing" corporation. The final breakthrough came in November 1973 when the Small Industries Development Organisation was formed by an Act of Parliament with a comprehensive mandate and took the programme from a collection of projects to structuring an effective agent dealing with small-scale and rural industry programmes on a national level and disassociated it from merely running projects. Thus SIDO's area of work relates to the promotion of all industries that are not of a large-scale nature or run by other corporations especially the National Development Corporation. A small industry has been defined as one which is within the capabilities of the people. Hence criteria like investment and employment are not followed. With the exception of a few large-scale plants, the rest of industrial activities fall under SIDO. Rural industrialisation is the most important assignment given to SIDO, so that it keeps pace with the rapid progress achieved in the 'villagisation' programme.

The functions of SIDO could be enumerated as under:

1. Planning and programming for small and rural industrial development
2. Providing economic services both to the Government and to entrepreneurs in conducting industry and area development surveys, project write-ups, feasibility studies, collection of statistics and information and finally act as consultants.
3. Providing technical services in the form of furnishing know-how, design, drawings, layouts, processes, machinery details, raw material uses and utilities as also standards and quality control.
4. Provision of training in skills and transfer of technology.
5. Provision of machinery and equipment on Hire-Purchase basis, assisting in their procurement, supply of raw materials and tools, marketing and market research assistance.
6. Construction and organisation of production in Industrial Estates.
7. Provision of common facility services to small-scale units.
8. Development of handicrafts through a national programme under the Handicrafts Development Corporation of Tanzania.

During 1967, the number of industrial establishments in Tanzania (employing 10 persons and above) was 431 which increased to 499 in 1974. Gross output increased from Shs.1,315 million worth of goods to Shs.3,887 million and employment rose from 34,502 to 70,315. Out of these 499 units around 400 of them are really small factory type units employing 10 to 50 persons. In 1975 SIDO conducted a census of small-scale units which counted 1,742 units in this sector besides 600 artisans who are engaged in traditional handicrafts. These units produced goods worth Shs.297.5 million. There has been some marginal over-lappings in the count. Nevertheless, this gives an idea of the size of the sector.

Attention to industrial dispersal throughout, could be seen from the spread out of these 1,742 units in all the 20 regions (given in Appendix A attached). Dar-es-Salaam accounts for 448 of these units.

According to the current programme of the organisation it proposes to establish around 1,000 small factory units (940 to be exact) which will be located in the interior and backward regions as also in the advanced regions. The number of units in the backward regions are heavily tilted so as to provide the much needed balance in development and will also utilize in a substantial scale local resources and skills. Industry-wise the position of these units are given as under:

	<u>No. of Units</u>	
	<u>Total</u>	<u>Located in Industrial Estates</u>
Food and Food based items	120	7
Clothing and apparel	141	32
Building material	172	30
Transport related items	67	13
Household items	204	34
Educational requirements	94	23
Health and Hospital requirements	24	3
Agro-based items	82	27
Defense stores	18	-
Others	15	5
	<u>940</u>	<u>174</u>
	*****	*****

Source - SIDO

These 740 items belong to 330 distinct product lines. At present these are only at the proposal stage and are being given final touches. The situation in the final stage may perhaps change. This however gives the idea of massiveness and thrust of the programme towards backward areas where the majority of these units are likely to come up.

An important element of the programme comes under the Industrial Estate scheme. SIDO has already completed three industrial estates with 45 sheds and units working in many of them. At present 11 industrial estates are under various stages of construction. These industrial estates will ultimately set up 174 units (as under) which excludes data for five more industrial estates proposed.

	<u>No. of Units</u>
Dar-es-Salaam	18* (21 sheds)
Arusha	5* (10 sheds)
Kigoma	14**
Iringa	10**
Moshi	14**
Lindi	12**
Tanga	10**
Bukoba	10
Mtwara	16
Musoma	10**
Shinyanga	9
Singida	10**
Songea	14*
Sumbawanga	10**
Tabora	12**

* These Industrial Estates are completed and functioning

** These are in various stages of completion.

Source - SIDO.

The programme is to set up 20 industrial estates, one for each region which will act not only as a central point accounting for production of goods but as a spring board in the total rural industrialization scheme of the entire region providing such facilities like common facility service, training of skills, development of prototypes and linkages with similar units coming up in the region. Thus a total national network has been planned and SIDO has gone a long way in implementation. Excepting 50 or 70 units which will come up in the five major towns, the rest of the units are coming up in the central growth points of each of the backward regions.

Apart from the mechanism of industrial estates which has been effectively brought to play a decisive role in rural industrialization directly or indirectly, promotion of projects are so designed as to give them widest spread out as possible. Thus out of 940 units, SIDO has completed feasibility studies so far for 280 projects, out of which 120 projects are in various stages of implementation. Only about 40 of these projects are in urban locations while the rest are in rural locations especially where raw materials are located.

As regards rural small units, SIDO may have to set up at least 3,000 units in the coming 4 years, to cover only a part of the registered Ujamaa villages. These are small units of which some of the categories are: Carpentry, blacksmithy, leather-based items, handlooms, readymade garments, lime and lime-based items, gypsum products, pottery, country tiles, water pipes, flour mills, small fabrication shops and agricultural implements.

The Handicrafts development programme is a fairly organized one. A census conducted by the Handicrafts Development Corporation revealed that there are 31,000 craftsmen in 11 categorized areas. The programme embraces extension assistance to these craftsmen in the form of training, upgrading of skills, supply of inputs and marketing their products through a chain of marketing centres.

In keeping with the socio-political outlook in development, promotion of rural enterprises are done with preference to public institutions like District Development Corporations, Ujamaa Villages and Co-operatives. In

In the total framework of institutions SIDO is not the only organization engaged in rural industrialization. The Prime Minister's Office with its network of around 87 District Development Corporations and a little above 7,000 registered villages play a prominent role. This organization has an extension framework with technicians or rural experts in different trades in each region and in some of the districts. Village officers are being posted to villages with a view to stimulating rural industrialization programmes. During 1977/78 the Prime Minister's Office allotted Shs.8.6 million for these tiny small-scale units in rural areas.

The work of various agencies is co-ordinated at the Village Council, District Development Committee and the Regional Development Committee levels, where specific plans for each year are formulated and implemented. In fact SIDO's hire purchase programme is primarily meant for rural units only and is co-ordinated through the District and Regional set-ups. By March, 1978, SIDO's hire-purchase fund alone disbursed loans worth Shs. 7.8 million to 130 parties.

Financial institutions like the Tanzania Rural Development Bank and the National Bank of Commerce also play a very significant role in providing various types of funds to rural enterprises. Their operations are linked with the field organisations mentioned above. Specific data on their lending operations are not available.

Development of appropriate technologies through training as well as technology transfer agreements known as Sister Industry Agreements with foreign countries, is one of the keynote functions of SIDO. Under the Sister Industry Agreements technology transfer for 58 processes are currently being implemented. Besides 9 training centres for basic training like blacksmithy, carpentry, ceramics, bamboo products, etc. SIDO is currently running Training and Production Centres in the following trades where the trainees not only get trained, but they also produce goods. These include: oil extraction, fruits and vegetable preservation (village type), pottery and ceramics, tailoring and garments, handloom and powerloom weaving, bio-gas from agricultural and animal waste, lime burning through kilns, leather products, puzzolana out of lime and alluvial soil, coir products, and handmade paper.

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The Handicrafts Development Corporation has on the other hand undertaken programmes in upgrading skills in the following craftlines: Wooden carvings (Mako de), utility wooden carvings, horn products, batik printing, tie and die printing, fibre products, shanga (Massi type) sissal products, magunia craft, basketry and ceramic art products.

KENYA

(Information for this section has been taken from the paper of Mr. Per Kongstad of Center for Development Research, Copenhagen).

Kenya seems to have a very compact and selective approach to rural industrialization as is evidenced from the above-mentioned paper. It is operated under the Rural Industries Development Programme in which donors like Denmark, NORAD and SIDA have provided technical and financial assistance.

According to the organisational set-up the Ministry of Finance and Planning and the Ministry of Commerce and Industry are at the apex in a supervisory capacity. According to Mr. Kongstad the linkage with the plan which these Ministries control is not very intense and it is rather administrative. As stated in the paper "the RIDP was started in 1971. It was however not mentioned in the second development plan 1970-74 and never became clearly incorporated in the overall industrialization policy". Whatever may be this weakness in linkage, the model available has a certain amount of compactness. "The programme was originally designed as an extension source programme with emphasis on skill formation and field extension to as many small rural workshops as possible". This programme was however placed under the Kenya Industrial Estate, as the managing organization of the network under RIDP. The KIE in its extension assistance has a certain amount of "specificness" since it has a programme to give "physical" assistance to support modern small-scale and medium industries in urban areas through the establishment of industrial estates. The KIE has a project-oriented approach and was keen on establishment of mini industrial estates, instead of giving an all-embracing frame to the extension structure. As a result of this interaction, the RIDP has taken up the contours of an industrial estate (workshop approach) and extension service which is straight-jacketed to the scheme. The RIDP's functions are as under:

1. Technical and managerial assistance and advice to rural entrepreneurs in areas covered by RIDCs
2. Financial assistance to such entrepreneurs
3. Technical service facilities
4. On-the-job training for entrepreneurs
5. Engagement temporarily in production in case of new rural industry
6. Identification of new rural industries and preparation of feasibility studies
7. Finding suitable entrepreneurs and assisting them
8. Recommending the degree and method of financial participation by Kenya Government in each project
9. Ensuring the implementation of the project.

For the purposes of implementation, four Rural Industrial Development Centres, namely Embu, Kakamega, Machakos and Nyeri were established. Even though these RIDCs were designed to give general promotional assistance, eventually it came to the brass tacks of input assistance and performance. It was found that catering a widely scattered clientele with more literature and advice and less time-bound concrete results was not very congenial from a result-oriented point of view. The concept of Industry Promotion Areas for these RIDCs became evident. Even though Mr. Kongstad differentiates between an IPA and a mini-Industrial Estate, the subtle differences are very thin. IPA also consists of sheds for clients and workshops in a clustered manner. Product prototypes are first developed in the workshops and projects are prepared. The loan committee provides the funds and training is given in bringing up the plant in these IPAs in an integrated manner. In all, 60 to 70 prototypes have been developed and adapted, out of which 20 have gone into production.

RIDC Machakos has helped 40 to 50 clients. The IPA Machakos consists of four blocks with 23 modules and shelters for 13 entrepreneurs. In the beginning of 1977, RIDC Machakos was assisting 15 clients (5 wood working, 8 metal working, and 2 in tailoring). The Centre constructs sheds, provides loans, supplies raw materials and gives management training and advice.

The Kakamega RIDC apart from giving general assistance also

established a ceramic plant and a small-scale sugar plant. Nyeri RIDC has a more responsive area. Unlike the other two, this RIDC was not converted into a mini industrial estate and does not have an IPA. This unit has catered to 40 projects by mid 1976.

This model outstandingly stands different from the earlier one.

BOTSWANA

(Information for this case study is taken from the paper presented by Mr. J. ter Haar dated 5 May 1975 to UNIDO - ID/WG/207/7).

At the time of independence in 1967, Botswana's economy was agricultural in nature. However mining operations and tourism developed in a big way. The benefit of these enterprises has had only a marginal effect on unemployment problems. The programme of rural industrialization was therefore aimed at taking the benefits of industrialization to the vast rural areas and the major population located in these areas. The entire programme was aimed at promoting local entrepreneurship to start small-scale and rural industries. The Botswana Enterprises Development Unit (BEDU) was set up in 1973.

Assistance given under this programme are as under:

1. To assist the establishment of fully viable enterprise owned and managed by Botswana entrepreneurs
2. To create new employment opportunities in both urban and rural areas
3. To utilize local resources and skills
4. To realize more equitable distribution of income between urban and rural areas
5. To increase more equitable distribution of income between urban and rural areas
6. To increase the direct participation of Botswana entrepreneurs in the development of the country.

This model is characteristic of a project approach without the trappings of a general extension service linked to a total plan. The strikes at industrialization however are purposive and are designed to produce results in a given time. Unlike the Tanzanian model it has no panoramic view of an all embracing indefinite future, but rather as a system which grows and begins moving by its own volition. It has the definite trappings of a service structure.

BEDU constructed industrial estates consisting of 10-15 workshops and rented it to clients. These workshops have a BEDU office and common service facility centre. A remarkable feature is that these workshops are of a functional nature. The following estates are in operation.

Gaborone Estate I - Garment Industries and allied products

Gaborone Estate II - Construction Industries and Building Materials

Mochudi Estate I - Leather Industries

Mochudi Estate II - Rural Tannery

Francis Town Estate - Metal Working and Wood Working.

BEDU organizes technical training to entrepreneurs. These include workshop training apart from class-room sessions. The technical expert works with the trainee in the workshop and does not merely instruct. Of greater importance is the management training. There is also a follow-up training conducted by the estate manager.

BEDU also provides a lease-purchase scheme to procure machinery and equipment and working capital assistance. Raw materials are procured and supplied on credit basis.

Entrepreneurs are given information on improved marketing and they are also trained. BEDU also liaises for purchases on behalf of the entrepreneurs with the government.

This programme of assistance is given as a package which contains all the ingredients for a successful small-scale unit. The programme is aimed at setting up viable small-scale units and its phasis is on developing local entrepreneurship. It has an urban element also. Within 18 months of its operation, the programme was able to establish 32 industries which employ 250 persons with an annual turnover of US Dollars 700,000. No doubt care is taken in screening the entrepreneur and then providing all the assistance to make the project a success, both promotional and by way of inputs.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. Social content of rural industrialization, the need for commitments, Government policies and clear-cut programmes

Gunnar Myrdal in his celebrated book "Asian drama" pinpoints the metamorphosis of Asian societies towards a greater distribution of the benefits of industrialization to the teeming millions who live in villages and whose numbers are strikingly overwhelming when compared to the microscopic minority in a few cities and towns. Anyone who attempts at a corresponding "African drama" will have a more vivid illustration of this transformation of Africa undergoing great social changes. Problems faced by African countries justify the need for a movement to villages, and industry is no exception. A question often asked is whether the sum total of efforts at rural industrialization cannot be achieved through a centralized and efficient system of production at few points rather than thinning the developmental efforts into a vast geographical area. The answer is a clear no, as the returns are neither economically attractive nor socially admissible. Moreover such a system simply does not work with the present undeveloped condition of infrastructures especially in transport. Even to lift up the present levels of development, a programme of rural industrialization to utilize the untapped resources, develop traditional skills, energize dormant areas and above all make people participate in their own development, has come to stay as an unavoidable ingredient of industrial planning. This has been analysed in the earlier sections and some outstanding models have been cited.

Most African governments have exhibited political will in varying degrees in this programme. This is however not so expressly reflected in the structuring of the institutions which have to work out the transformation, due to various reasons, even though these institutions are the final determinants in ensuring success. We therefore come to the conclusion that this commitment has to be intimately pinned to these institutions.

We have seen earlier that with the best political will, effectiveness of the institution is made anaemic because the basic planning strategies and programme framework sometimes leaves the scheme of rural industrialisation to a series of intentions unbacked by policies reducing it sometimes to a slogan.

It is necessary that a government should spell out clearly the objectives of policy and the resultant programme in its basic economic exercises especially the planning mechanism. This must be backed with financial, fiscal and organisational support for achieving given targets.

Firstly what the government means by rural industries must be clearly defined, demarcated and dealt with in its own right. This clear identity is necessary for programme implementation. In fact the concerned government should have a well-meaning rural industrial policy which should be incorporated and integrated with the national policy and should not be treated as peripheral plan. Identification could be done according to conditions available in the country. As far as possible some basic norms like investment, employment, location, markets or technologies should be adopted for administrative clarity. A uniform yardstick is clearly not possible.

Once the area is identified and objectives laid down, government must decide on the levels at which this programme will be implemented. Small-scale and rural industries, as we have seen, form the major component of industrialisation from the point of view of resource mobilisation and spread out of benefits. Such being the case the Ministry concerned should have a definite and clear cut portfolio of work at the top level.

It is advisable to legislate the establishment of agencies for rural industrialisation programme as this imbues greater responsibility and effective authority for the concerned organisation. As rural industries permeate the entire social spectrum and therefore become reflected in the political organisation's programme, it is necessary that a commitment is discharged through legislation.

Ingredients of this policy includes:

1. An orientation in the educational system, training programmes etc. towards self-reliant technologies and overall belief in local initiative. This will augment the specific programmes with required enthusiasm and management material as an evolutionary process.
2. The public institutions and especially large establishments should be made to participate in these national efforts in the form of contributions in financial terms, organisation and sharing of technologies and research benefits.

3. The mechanism of industrialisation should be taken as a whole with large and small industries properly interwoven as basically they are complementary in nature. The forward and backward linkages of the various sectors of scale must be spelt out and directions must be given.
4. Government's contribution to infrastructural facilities, subsidies, grants and incentives according to required degree should be spelt-out. Rural industrialisation unlike the establishment of large industries calls for specific governmental contributions especially in areas where no normal bankability of the activity is possible and where investments give returns in the long run. This relates to constructions of roads, making available power and water, subsidizing transport costs, subsidizing rates of interest, relaxation in taxes, etc. Making industries go to rural areas does require a certain push which in the long run gives a social cost break-even.
5. Production areas for small-scale and rural industries should be reserved and in deserving cases protected in social interest.
6. Government will have to take certain unpleasant decisions on quality of products and standards with a view to give initial spurt to these nascent industries till they come of age.

Even though self-reliance is an admitted policy of the developing countries, it is less exhibited when it comes to the lure of foreign assistance. Especially, rural industrialization is considered as uneconomic propositions which should be developed by overseas aid. Even though this is desirable and necessary, it is at the same time advisable that the concerned Government makes its own clear cut budgets for this programme for itself and to practice self-reliance. A large project is more amenable to aid, provided it does not affect the vital policy considerations of the Government. Lining up rural industries projects for aid, like second class material, has a self-defeating impact.

B. Nature and functions of the Institutions

Institutions could be (1) Government-owned or sponsored and (2) private owned () combination of both. In between these three categories we get varying grades of institutions in different countries. The constitution of the Agency depends upon its established objectives as well as the pertaining national perspective. We have some interesting historical lessons from countries like India where the changing shades of organization are witnessed according to the maturity attained and the changed needs of the programme. As rural industrialization is often the by-product of social and political movements, initial organization is always government-owned and directed. The services are free and development work is the main concern. This is necessary to give a correct footing and required encouragement in the initial stages. Once the movement grows and comes to its own, the participants begin asking for their share which is a healthy tendency. Thus Industry Organizations and Associations begin doing promotional work themselves. As present financial institutions in India from their own business point of view, undertake promotional work in small industries and even large business houses do so, out of their interest in ensuring markets. At the present stage in which the African countries are, government's initiative is necessary and government institutions alone can give the required support.

A question as to whether the services should be charges or be given free, is interesting. A fully free service has its own defects, but this is unavoidable in the formative stages. Charging of fees depends on the degree of growth and subsequent response of the clientele, their type, the internal growth of the organization and the composition of its purely developmental and commercial functions. The trend should be towards charging of fees for the services.

As we have seen, while discussing the three models given earlier, it is pertinent to analyse as to what extent the organization should be purely promotional and extension-oriented and where it should begin with managing of projects. Or can we have a combination of both?

Normally we get the following four tiers of organizational responsibilities:

1. Planning - Ministry of Planning/Planning Commission/
Planning Bodies.
2. Regulating - Ministry of Industry/Ministry of Finance.
3. Promotional - Ministry of Industry/Separate Development
Agency.
4. Project Implementation - Separate Development Agency/Entrepreneurs.

Experience shows that combining all the functions will lead to chaotic situations in management. The first two are carried out by separate agencies and it is desirable. The question how far the other two should be combined depends upon the job assignment under the programme. In order to encourage a healthy growth of entrepreneurship which is necessary as an effective ingredient of development, it is necessary that the promotional agency should not meddle with project implementation except for demonstration or promotional purposes. The ultimate aim should be that promotional work ultimately dilates into the hands of the organizations of entrepreneurs. If this perspective is taken, the question of mixing up and creating vested interests in the promotional agency itself does not arise. However ideal this situation is, a hard and fast rule is not possible. Where the entrepreneurial class is negligible or takes time to develop and the work quantum with its result-oriented objective is less and gestation period is small, a combination is possible. Even while combining, it is advisable to leave project management to subsidiary organizations. A mere project-oriented organization normally cannot carry the non-commercial and national ethos and inspire action as a catalyst. In the long run the built-in restricted commercial outlook will neutralize expansion possibilities from a promotional angle.

While we emphasize the need for a promotional structure, it is not desirable to have a highly centralized organization. In other words, is it possible to industrialize Tanzania (rural) with activities in Dar-es-Salaam? The answer is in the negative. Proper regional extension work and delegation of promotional responsibilities are to be correctly incorporated in the framework.

Promotional work devoid of provision of inputs reduces the former into a mere preaching exercise. Of course this is different from giving management responsibilities to the promotional agency. In developing countries there is the question of credibility and hence the cry for providing assistance in the form of a package. How 'complete' and 'integrated' should this package be? Or in other words how do you combine promotional assistance like technical, managerial, economic know-how and assistance with provision of machinery, worksheds, training and even marketing. To some extent a combination of promotional with input assistance is necessary to lend credibility to the programme. The Tanzanian model combines promotional with input assistance on machinery, and training in a complete way, with raw material and marketing assistance partially, excluding finance and full fledged marketing. The Botswana model is a complete package. And yet the latter is restricted in the area of work, even through compact, and is result-oriented. We should know that every type of assistance calls for a specialized function. It is not in the interest of efficiency to mix them up especially when the clientele is large and operations are complicated. And when there are specialized national Agencies for financial assistance, it is not worthwhile to mix them up. It is however definite that the total assistance should be in the form of a package which avoids the entrepreneur being tossed from pillar to post. This could be very well achieved by co-ordination of the agencies rather than combining all the activities into one. It also depends upon the existing availability of organizations and their development attitudes. The question as to whether the Agency should be multi or single-functional or to what extent the centralized functions should be diluted with regional delegation of functions, has to be understood in this context. It is better to look at the need of the entrepreneur who wants both a package as well as its ingredients separately, rather than unilaterally imposing functions on Agencies and building up formidable empires too unwieldy to move, which are to reach out to the small man.

C. Spread-out and Depth of the Rural Industrial Extension System

Should the rural industrial extension system operate from the regional/state level (biggest administrative divisions of a country), the District level or the village level itself? What should be the functional nature of the extension worker? Rural industrial extension systems have close similarities with the agricultural system. The villager normally is conservative and he has to see to believe. Once he believes he takes to it strongly. In effect they are to be combined in the extension outfit.

The extension system is no doubt expensive and brings results in the long run. The extension worker also requires comprehensive training so as to make him a change agent. The levels of operation depends upon the spread out of the projects and the outlook of extension work. It is advisable to tie the system to existing mechanism as in the case of Tanzania. The regional extension centers with their attached industrial estates provide an excellent starting point. Nevertheless a need has been felt of late, to come down to the District levels so as to make decision-making and programme implementation easier. The District Rural Industries Centres now being implemented in India will be an attractive model in countries where the programme dispersal is large. These centres should however be vested with sufficient powers so that they do not degenerate into mere liaison and clearing agents. The centre could be a one-man show or a combination of experts as the situation demands. It is necessary that these centres are made accountable for the specific projects under it, so that there could be regular performance audit. As the main purpose is to make the villagers self-reliant, it is better to give them guidance from a certain growth point, rather than getting directly involved, which will be very expensive. In cases villages are large and the projects are many, such centres could operate in the concerned village itself.

These centres should have their facilities like a small workshop, mobile demonstration arrangements and tools etc. for developing prototypes and giving training. The resources in terms of financial grant or loans, supply of tools, arrangements of workshop, supply of working capital are some of the inputs which the centre should be able to provide.

Otherwise the whole exercise will be reduced to mere preaching and die out. The training of the extension worker and his adaptability are important elements which make or mar the programme.

D. Rural Projects and Appropriate Technology

Often the mistake is committed by taking decision on what the villages want in national capitals and subsequently they are imposed on those who very often do not participate in the exercise. This planning from above is detrimental to the success of this programme. The villager knows what he needs and this should be ascertained. In fact the R.I.C. should do this job plan scheduling first.

We come to the major question of introducing appropriate technologies of production. Where small quantities of oil seeds, say 250 kg a day, are available there is no use in imposing an expeller. There are small crushing units known as "ghanis" in India which are suitable for these small capacities. The same is the case with sugar cane. The problem is twofold. The villages cannot cultivate the produce unless there is a unit, and vice versa, the unit cannot come unless the raw materials are available. This vicious circle can be broken only by introducing these simple technologies. One can go on adding to this list and invariably we get an appropriate technology to utilize village resources. This is also applicable to skills like weaving, cobblery, carpentry and blacksmithy. The need for these technologies are due to the followings:

1. It enables utilization of resources which otherwise go idle.
2. It provides an extra income to the villager who has off season unemployment and under-employment and makes village life attractive.
3. It provides essential goods like specialized paper (handmade) which are otherwise imported.
4. It definitely augments agriculture as in the case of sugar cane and oil seeds.
5. It provides the villager with goods right at his door, for which there is otherwise a scarcity.
6. Modern factories require power which is scarce in the developing countries. These technologies are ideal to produce goods where power is not available.

7. This provides self-reliance and, in course of time, nurtures an entrepreneurial class very valuable for the growth of a country.
8. This fits in well to the environmental surroundings of the village and the best answer to pollution.
9. Where labour is cheap and capital scarce these technologies have specific appeal.

These technologies could be transferred, developed and implemented by the following means:

1. Training in basic skills
2. Upgrading of skills
3. Training in skills abroad
4. Training cum production centres
5. Training cum demonstration centres
6. Mobile training vans
7. Model or pilot projects
8. Sister industry - transfer of process know-how between two entrepreneurs in the participating countries.

UN Organizations have a great role to play in setting up International Exchange Centres for collection and dissemination of technologies in a systematic manner. A few such organizations like ITDG are doing a good job.

The extension mechanism should have built-in facilities for technology transfer and development as mentioned above.

E. Viability of rural projects and the need for subsidy, grant and other supports

Many of the rural projects are viable themselves especially when there are advantages in low-cost labour and transport costs and problems. However traditional approaches of viability vis-à-vis unit cost returns, could not be straight away applied to these projects. Some of them in the long run and in final impact give social returns and are required from the point of view of declared national goals. Where there are no

short-run cost advantages, the concerned governments have to take decisions in respect of:

- a) quality and standards
- b) pricing of the product which has to be subsidized for making them competitive
- c) incentives shall have to be provided (a list of which is attached vide Appendix B)
- d) demarcations for production and protection has to be given.

The losses from these angles could be offset by the following social returns:

- a) better income distribution and increased purchasing power which further pushes up the economy
- b) providing employment and vocations to idle rural labour
- c) more effective utilization of rural resources
- d) augmentation of agricultural activity with increased production.

The net gains are on the affirmative, hence the reason why the developing countries are resorting to rural industrialization. Besides, it generates self-reliance and self-confidence among people ideally necessary for any meaningful programme of national development.

An instance from India proves the point. Millions of handloom and powerloom weavers were in a quandry at one stage because of competition from certain mill-made cloth which is also ideally suited for production in the "decentralized" sector like bed-spreads, towels, grey sheetings, etc. The Government of India took the decision of charging a cess on mill-made cloth, the proceeds of which were used for research and development in the rural sector. Today this sector not only regained its competitiveness but is emerging as good export earners.

F. Research, Innovations and Prototypes

Rural industrial extension systems normally cannot afford to have their own research arrangements and bring out innovations, unless there are strong government support and specific institutions are created. It is therefore necessary to work out effective linkages with organizations

concerned with research. The question of the prototype is different as these organizations should have some arrangements for prototype developments so that distance between the research organization and the villager is considerably reduced. Common testing facilities and formulation of standards shall have to be provided by the extension organization in one way or other.

G. Type of Entrepreneurs to be Promoted

This relates to management entities which own rural industrial units. Who should they be? How do one prefer between individuals, co-operatives, village communities, and public institutions? Promotion of entrepreneurs depends upon the development outlook of different countries. It is however a known fact that many of the rural industries are amenable to co-operative ownership, and it works out better when the members themselves work in the enterprise. SIDO of Tanzania follows a certain policy in this regard. In fact an attempt is being made to rate industries according to their responsiveness to different types of management entities. This depends upon the product mix, extent of sophistication in the process of manufacture, combination of machines and labour, the nature of equipment to be handled, the involvement of product finish and quality, type of raw material and extent and organization of markets. It is common knowledge that the manufacture of items such as cow rope or carpentry items amenable to co-operative ownership than to individual. This is an interesting experience and perhaps a controversial area. What needs emphasis here is that application of scientific management in small doses is necessary for the success of the project. This may be simple bookkeeping, inventory control, basic knowledge of laws, some idea of market outlets, perhaps a crude know-how on production flow, etc. There is however need to train entrepreneurs whether they be individual or co-operatives, in these simple management mechanisms. While in large-scale industry, management is highly specialized, in small-scale it is taken together and in their elementary levels. But the need is very much there.

H. Pervasiveness of the organizational structure

A rural industrialization programme is not like running a commercial banking operation however sophisticated the latter is. There are ways of

doing the latter in a set pattern and activities can be linear programmed to a good measure of exactness. The former is often the child of history, politics and social changes and invariably moves along these contours. Action and interaction of socio-economic factors are always at work. The programme therefore concerns all and not one agency however efficient it may be and it requires the intimate involvement of the participants. Hence appropriate linkages should be provided to national activities, depending upon the degree of national involvements.

A Rural Industries Board at the apex level or a Small Industries Board with adequate coverage is ideal for formulating policies and giving directions. This Board should be representative of all concerned interests including those that are political.

Organization or Organizations under this Board should be structured with clear-cut job assignment and proper co-ordination machinery.

This could take many shapes.

Involvement in the field, especially with socio-political interests, is necessary for ensuring mobilization. At the concerned administrative levels there should be regional co-ordinating committees which could give direction and support to the programme for the concerned administrative area and ensure participation of various interests.

I. People's contribution

Involvement of government grants and subsidies is contemplated with a view to meet the gap where activities are not very bankable and infra-structural and software expenditure are involved. This however should not lead to paternalism which will kill the very roots of growth. Contribution of the beneficiaries in cash or in kind should be the criteria for according priorities to rural industries projects.

A very interesting experiment happening in countries like India is the involvement of large-scale undertakings both private and public as well as financial institutions in rural industrialization as under:

1. Setting apart a small percentage of profits for rural industrialization schemes by way of grant.
2. Adoption of complete villages for financing rural industries projects
3. Earmarking stages of production for rural manufacture

4. Earmarking materials purchases especially packagings from rural units
5. Concessional loans from financial institutions
6. Provision of equity as grant from financial institutions
7. Subsidizing, fully, expenditures on promotion work, like project preparations, etc.
8. Price support and preferential price quotations from rural units.

J. Inputs Services

Need for providing inputs requires no emphasis. However the types of services that are promotional and that which provide material inputs are mentioned as under:

Promotion

1. Industry Information - New industries and expansion of existing ones, surveys and studies, project write-ups
2. Technical know-how - Processes Designs, lay-outs, machinery details, product mix, utilities, raw materials, standards and quality
3. Training - Indigenous and abroad in basic skills and upgrading, technical and managerial training, technology transfers
4. Mobilization. liaison and co-ordination
5. Common facility sources, testing facilities, standards
6. Infrastructure facilities
7. Market research and counselling
8. Mobile demonstration vans model/pilot projects
9. Research and development of prototypes

Inputs

1. Provision of workshop - Industrial Estate and others
2. Supply of machinery and equipment on easy instalment basis
3. Financial loans for workshop machinery - working capital
4. Supply of raw materials on credit

5. Marketing assistance including establishment of sub-contract exchanges and participation in bulk purchase programmes.

Government grants may have to be made available from the budget for promotional expenses. Subsidies do come in, in varying degrees in the case of input services. It needs to be emphasized that the major bottleneck is finance and the indigenous banker in a developing country has certain attitudes of creditworthiness which are not necessarily suited to development. For example the banker insists on equity participation from the entrepreneur before the project is taken up for financing. Equity contribution becomes a real problem with rural entrepreneurs. In these areas Government must step in to provide financial assistance. At any rate a Rural Industries Fund at national and regional levels, with credit guarantees from the Central Bank will be very helpful for a smooth and efficient working of national schemes.

K. Assistance from U.N. Agencies

Time has now come to provide assistance from international agencies to the developing countries in the area of rural industrialization. This could be in the following areas:

1. An international agency (1) to document and disseminate appropriate technology information and (2) purchase of patents and know-how if necessary. At present UNIDO is doing a service in this regard through its documentation service.
2. Provision of suitable expertise.
3. Subsidizing or completely financing expenditures on infrastructure facilities, training expenses, project preparation and promotional expenses.

PRODUCTION IN SMALL INDUSTRY SECTOR

(DECEMBER, 1975)

NAME OF REGIONS	NO. OF UNITS	EMPLOYMENT	FIXED CAPITAL	GROSS OUTPUT
Tanga	118	3,127	21,372,356	78,106,608
Kilimanjaro	76	2,629	2,236,131	4,284,546
Arusha	54	1,357	15,254,281	24,272,283
	248	7,113	38,862,668	106,663,562
Dodoma	36	300		
Kigoma	40	213	359,956	658,904
Sinaiida	28	45	565,300	667,300
Tabora	77	802	4,927,300	15,081,000
	181	1,360	5,852,556	16,402,504
Morogoro Salaam	448	1,353	5,075,040	9,000,000
Coast	52	1,650	4,445,236	4,627,820
Morogoro	20	662	4,343,240	13,250,747
	520	3,665	13,863,512	26,878,567
Shinyanga	210	2,376	14,641,452	56,725,166
Mwanza	116	832	3,795,575	9,617,200
Shinyanga	33	239	2,058,570	1,790,300
Dodoma	132	2,510	3,566,446	8,028,100
	491	5,957	24,062,043	76,160,766
Iringa	68	260	2,411,255	1,101,600
Mbeya	70	300	3,000,000	1,500,000
Kilwa	12	438	338,582	732,000
	150	998	5,749,837	3,333,600
Ruvuma	12	108	261,322	610,736
Mtwara	52	184	419,623	146,700
Idudu	88	2,113	13,764,935	7,323,100
	1,742	21,528	102,836,696	257,528,200

INCENTIVES FOR DEVELOPMENT OF
RURAL INDUSTRIES IN BACKWARD AREAS

1. Tax exemptions and relaxations to entrepreneurs on investment in rural industries out of profits of existing concerns.
2. Concessions in customs and import duties on machinery and equipment as well as raw materials.
3. Concessions in sales tax and other local taxes.
4. Subsidizing transport costs of the units.
5. Fully subsidizing start-up expenses including project preparation etc.
6. Subsidizing research expenditures.
7. Providing grant for equity contribution to entrepreneurs.
8. Subsidies in land purchase, construction of shed, purchasing of machinery and liberal terms of repayment.
9. Subsidizing expenses of the project for training of skills.
10. Concessional treatment in the import of machinery and raw materials.
11. Price support especially for export markets and preferential treatment to rural entrepreneurs in government stores purchase programme.
12. Earmarking or Reservation of items of production in the rural sector.
13. Directions to large-scale establishments for making available raw materials that are scarce and concessional treatment in ancillary purchase from rural units.
14. Support in procuring foreign know-how and expertise and their imports.

