PROSPECTS FOR RURAL INDUSTRIALIZATION IN ETHIOPIA

Bekure Woldesemait*

ABSTRACT. Rural industrialization is undertaken by many countries following different ideologies and having reached different levels of development. Consequently, the successes or failures of such programmes vary. In socialist countries rural industrialization is integrated into the planning of the economy of the whole country and conforms to the economic laws and principles of socialism. The paper raises points concerning the feasibilities for rural industrialization in Ethiopia in view of the economic laws of socialism and on the basis of the actual conditions of the country. However, as the aim of the paper is to stimulate discussion among interested persons, no specific proposals for strategy of rural industrialization are made.

1. INTRODUCTION

We think it useful to remind our readers at the outset that the aim of this paper is very limited and that the discussion is bound by a framework of principles.

1.1 Objectives

Many countries — developed and developing, socialist and non-socialist — have some sort of rural industrialization programme. The objectives, methods and degree of success of the programmes vary considerably from country to country. Whatever the outcome of the programmes in other countries, we believe that rural industrialization has unquestionable relevance to Ethiopia.

This paper does not propose a strategy of rural industrialization for Ethiopia. Such strategy is extremely complex and demands the concerted effort of a group of experts having at its disposal the necessary manpower and material resources. Rather, this aims at stimulating reflection and discussion among individuals or groups concerned with rural industrialization in Ethiopia, and its success or failure must be judged in veiw of this aim.

The reflection that follows is based on the concrete conditions of the country as known to us. Our thoughts are also guided by the economic laws

* Assistant Professor, and Chairman, Department of Geography, Addis Ababa University.

The article is based on a paper presented at the Institute of Development Research Seminar on strategies for Socialist Rural Transformation in Ethiopia, Nazareth, Ethiopia, 27-29 October 1978.

of socialism, the line that Ethiopia has chosen to follow. Consequently the experiences that we cite now and then to illustrate our ideas are either from countries that are on level of development similar to that of Ethiopia, or from those that have tried to apply the principles and laws of socialism in their rural industrialization process.

1.2 Definition of terms

The key terms used in this paper must be defined to avoid possible confusion.

Rural. It appears easier to define "urban" and consider "rural"as its antithesis rather than to try to define the latter directly. The following definition is useful and functional: "urban centre shall mean any place in which a municipality has already been established or which is designated as an urban centre by the Minister† in consultation with concerned government offices" [13]. All areas that do not fall within the above definition are rural.

Industrialization. In this paper, the term "industrialization" designates the process and growth of manufacturing and repair activities, including handicrafts, through the use of machines and tools that are often different from traditional ones. In cases where traditional tools are still in use, it may be characterised by its organizational aspect, which must be based on socialist principles.

2. WHY RURAL INDUSTRIALIZATION?

It would be pretentious to try to give an exhaustive treatment of the reasons for or justification of rural industrialization in a paper of the sort that we are writing. Therefore, the following are only some of the important points.

2.1 Economic Reasons

It is believed that backwardness is closely associated with lack of industrialization. The corollary of this belief is that industrialization is indispensable for the socio-economic development of a country. This is shown, among other things, by the fact that all developed countries today are also industrialized countries. Though the question of industrialization is not specific to rural areas, it is clear that it is extremely appropriate to them.

We all know that production activities in rural Ethiopia, especially in agriculture, are highly seasonal, as crop raising is associated with seasonal

† Minister of Urban Development and Housing.

rainfall. During sowing and harvest, the rural population may be extremely busy, while during dead seasons they have little work to do. Industrialization will help to avoid the seasonal unemployment problem and will increase the per-head per annum productivity by engaging the able-bodied population in a regular fashion. In addition, it may have a special significance for the emancipation of the rural woman, as it gives her the opportunity to work productively in addition to her household duties. The importance of rural industries in solving disguised unemployment and in doing away with unproductive activity is recognized even by countries that have no unemployment problem. The Minister of Local Industry of the Russian Federation states, "... local industry should help draw into public production the able-bodied population engaged in household work, especially in small towns and workers settlements and the rural population in periods free of farm jobs" [19, No. 11, p.46].

Yield per active man in the rural areas of Ethiopia is extremely low, partly because of the inefficiency of the instruments and tools that he uses and partly because of the traditional organization of production activity. Consequently, the rural population suffers from scarcity, want and periodic famine. Industrialization of rural Ethiopia, if properly integrated with rural as well as urban economy, should revolutionize the primary sector by providing it with better instruments of labour and inputs, such as fertilizers, that make increased yields possible. Hence, the satisfaction of the needs of the rural population by increasing productivity through the introduction of technological and scientific achievements can be realized. This conforms with the fundamental economic law of socialism which desires, "... to assure the maximum satisfaction of the material and cultural needs that grow without interruption of the whole society by constantly developing and perfecting the socialist production based on a superior technique" [16, p.41].

The transport infrastructure in Ethiopia is insufficiently developed. Most of the rural areas, especially the peripheral zones, are inaccessible by truck or water transport. Manufacturing the items needed by the rural population in the rural areas themselves on the basis of locally available raw materials will reduce congestion of the existing transportation system. Collecting raw materials from rural areas in urban centres for processing, and then transporting the industrial products back to rural users raises the prices of the items unnecessarily. This can be avoided by performing the processing in the areas of the raw materials and consumption, that is, the rural zones.

When a rural product is destined for consumption in urban centres, bringing it in a processed or semi-processed form to areas of consumption will raise its value and reduce the transport cost. For example transporting oil instead of oil seeds from rural to urban centres reduces the cost significantly, even if not proprotionately, as less than 40% of the weight of the seed is oil.

2.2 Reducing Regional Inequalities

In unplanned economies, the concentration of the productive forces in certain parts of the country only and the economic depression of the other areas is a typical phenomenon. This phenomenon started to develop in Ethiopia with a sporadic introduction, both in time and space, of capitalist type socio-economic characteristics. The regional differences of development opportunities manifested themselves specially clearly between urban and rural areas. Even though socio-economic conditions were far from satisfactory in the urban centres, the limited undertakings were located in them. The few industries are concentrated in and around Addis Ababa, Asmera and Dire Dawa. Public facilties such as schools, hospitals, clinics, electric energy, potable water, etc., were available only to people living in the bigger towns. The situation conforms with the statement, "The predominance of the town over the countryside (economically, politically, intellectually and in all other respects) is a universal and inevitable thing in all countries where there is commodity production and capitalism" [8, p.356]. It is true that there was no developed commodity production and capitalism in Ethiopia, but with its sporadic beginning started the domaince of the towns over the countryside.

Therefore, one of the rationales for rural industrialization in Ethiopia is the suppression of the differences between industrialized urban centres on one hand, and unindustrialized and backward rural areas on the other. Introducing industries into the rural areas is bringing in one of the functions of urban centres, thereby reducing the differences between them; avoiding the exploitation of the rural areas by the urban centres. This is also a socialist approach. "The abolition of the separation of town and country is ... not utopian, insofar as it is conditioned on the most equal distribution possible of modern industry over the whole country" [8, p.357]. Many socialist countries have tried it with considerable success. Buchanan observes, "The Chinese have endeavoured with determination and with some successes to reduce the conflict of interest between the towns and the countryside; they have, equally, tried to avoid that the countryside be dominated by some industrial towns ..." [5, p.220].

However, a word of warning is not out of order here. The abolition of the antithesis between town and country does not imply that urban centres will disappear, losing their leading role in the socio-economic development of Ethiopia. "This does not mean, certainly, that the suppression of the opposition between town and country should bring 'the death of the big towns'. Not only do the big towns not disappear, but new ones, which will be the centres of cultures most developed, centres not only of big industries, but also of the transformation of agricultural products and that of a powerful development of all branches of food industries, will still emerge" [16, p.26]. According to the same source, it is the "essential differences", not all the differences, that can and should be suppressed.

2.3 Socializing Rural Life

The rise and growth of the bourgeois socio-economic structure which is necessary for the abolition of feudalism, and that of the proletariat that abolishes capitalism and establishes in its place socialism as a transitional stage to communism, are inseparable from industrialization. Indeed, Ethiopia has opted to bypass the bourgeois socio-economic stage by going through the NDR programme to socialism as a transitional stage to communism; but no less in this case than in the former are industrialization and the growth of the proletariat indispensible. Socialism cannot thrive and maintain itself for a long time in a society that does not build an industrialized economy.

The socialization of the rural production activities implies specific organization. Because of the particular space-production relationship, agricultural production can be brought about by private producers in countries where collectivisation is not realised. This is the situation in present-day Ethiopia. On the other hand, industrial production of necessity demands socialized production organization; industrialization of rural areas entails socialization of the rural population.

In the Ethiopian situation, the establishment of the manufacturing units lays down the basis for a clustered settlement which is indispensable for socialized work and the provision of services such as the supply of water, electricity, medical treatment, education, etc. The supply of these services is almost impossible in dispersed settlements, while clustered settlement greatly facilitates it. In the same manner, the mobilization of the population for construction and other purposes becomes costly in dispersed settlements.

2.4 Developing New Skills

The rural life in Ethiopia is tied down to production activities which are centuries old. As a result, repetition of behaviour predominates over innovation and introduction of new skills. The rural Ethiopian engages himself in crop production and animal herding (mixed farming), in nomadism, in handicraft, at times in trade, etc. He often has commendable skills in these activities, but there are inherent disadvantages in them. The introduction of machines, even if of the most rudimentary nature, will inculcate in him new skills and open his mind to visualize further and wider.

In order to generate large employment opportunity and since the technical knowledge of the population is low, rudimentary technology is used at the beginning of the industrialization process. As the workers acquire more skills, the rural industries can progressively adopt advanced technology. This is recognized by many countries that have undertaken rural industrialization.

For example, "In India, the great need is for patterns and techniques of investment which economize capital and maximize the use of labour ... our industrial development must be planned mainly on small-scale industry model, subject to adoption to large-scale capital-intensive projects when modern production technique unquestionable requires them" [19, No. 9, p. 59].

As the rural industries develop, they can serve as sources of industrial manpower to the big plants in urban centres. This is specially significant, as the migrants into urban centres who later became industrial workers, came with no specific skills in the past. For example, in 1975, about 69% of the industrial workers in the Addis Ababa region were peasants before being employed in the factories they were working in, and they possessed no skill to handle machines. In addition, about 50% of the total industrial workers were illiterate, which makes on-the-job-training difficult [1, pp. 242-244].

Industrialization of the rural areas introduces new skills not only in the technical aspect but in the organizational and distribution aspects as well. The manufacturing units, no matter how small, are organized, unlike the farms. Work goes on in a manner different from that in which the peasant performs in his fields, and the product has to be distributed to consumers and participants according to different principles.

2.5 Facilitating Rural Life

One would expect that, if industries were located only in urban centres, emphasis on the needs of the urban population and on the national economic development might de-emphasize the production of industrial items to meet the specific needs of the rural population. On the contrary: rural industries based on the local raw material and local needs, and run by the rural population, cannot overlook the peasants' needs. This is underscored by most countries having rural industrialization programmes. The aim of local industries in USSR is stated thus: "Being directly subordinated to the local soviets of working peoples' deputies, the enterprises help them solve economic problems that arise in the district, city, region or territory in the interest of the fullest possible satisfaction of the requirement of the population and of the economy" [19, No. 11, p. 46].

Therefore, rural industrialization will facilitate the supply of consumption goods that the rural population needs; the production and supply of agricultural instruments, tools and machinery; and the production and supply of agricultural inputs such as chemical fertilizers, insecticides, herbicides, animal vaccination products and fodder or feed.

2.6 Security

The areal concentration of the productive forces is not simply an economic problem; it is a security risk as well. Accidents of natural and human origin as well as enemy attacks can damage a large portion of concentrated establishments. Industrializing rural areas disperses industrial establishments, thus minimizing risk.

We have mentioned above some of the justifications for the industrialization of rural Ethiopia. It is appropriate to indicate here that the development of light industries that serve the broad masses (NDR programme), the establishment of industries in various parts of the country and the expansion of cottage industries to reduce the gap existing between town and country by increasing the income of peasants (PMAC Chairman's speech, 12 September 1978) are the expressed objectives of our government.

3. THE FEASIBILITY OF RURAL INDUSTRIALIZATION IN ETHIOPIA

Rural industrialization is practicable in Ethiopia for the following reasons:

3.1 The Taditiional Base

There is already a relatively developed cottage and handicraft industry in the country. Excluding Eritrea and the nomadic areas, there was in 1972-73 an estimated number of 209,825 household enterprises in which 245,077 persons were engaged. The enterprises may be categorized as follows.

Table 1

Types of Household Enterprises

Industry group	Number of Enterprises	Persons Engaged	Persons/ Enterprises
Food	.6,134	7,841	1.28
Textiles	136,683	157,709	1.15
Clothing	10,059	10,378	1.03
Leather	5,465	7,728	1.41
Wood	3,789	3,921	1.03
Ceramic Ware (pottery, china ...)	18,304	22,036	1.20
Metal products	8,553	9,873	1.15
Other	16,856	21,519	1.28
Total	209,828	245,077	1.17

Source: [4, p.7].

The table indicates that the rudimentary idea of processing, on which industrialization can be based, exists in the country. However, in almost every case, the enterprises are run by one or two enterpreneurs. The table also indicates the presence of demand for similar products.

In another study, covering about 100,000 km^2 and 2.6 million (1968) population, in parts of the Administrative Regions of Sidamo and Gamo Gofa, it was estimated that there were 4,054 blacksmiths, 5,638 potters, 2,362 tanners, 15,639 weavers, more than 757 tailors and 192 house constructors. The same source indicates that there were between 70,000 and 75,000 people engaged in hand-spinning [6, pp.52, 71, 86, 121, 128]. Therefore, rural industrialization can be started by revolutionizing this tranditional base technologically and organizationally.

3.2 Local Initiative

One of the objectives of rural industrialization is to inculcate the principle of self-reliance. Consequently, rural industries must rise and develop largely as a result of local initiative. Thanks to the rural land reform proclamation of 1975, farmers possess the land they till, and consequently keep the product for themselves after meeting some institutional obligations. They are undoubtedly better off now than they were some four years ago. This implies that they can save a portion of their product and can invest in processing enterprises. The fact that many rural localities contributed a significant sum of money for the defence of the motherland, and have continued to contribute for various projects since then, proves that the rural population can be mobilised to undertake rural industrialization. Those that may not be able to contribute cash can participate directly in the construction. Besides, the investment requirement of such industries is comparatively small.

Self-reliance is the principle followed by almost all countries carrying out rural industrialization. For example, in China it is based on the principle of walking on two legs: one of the legs is the rural industrialization based on local effort, simple technology and consequently only a small amount of capital; while the other leg is the development of heavy industry with complex technology and large amount of capital to be undertaken by the central government [3, p.232]. In India, it is stated that "'... the aim of the state policy will be to ensure that the decentralized sector acquire sufficient vitality to be self-supporting and its development is integrated with that of a large-scale industry" [18, p. 50].

But self-reliance does not mean the absence of assistance or guidance for the rural industries by the government. A continuous training of personnel, financial aid through bank loans, determination of plant feasibility and plant location, integration of the rural industries both in the rural economy and for the large-scale industries can be realized only with government assistance. It is with this understanding that the Ethiopian Government created HASIDA, Handicrafts and Small-Scale Industries Development Agency, by Proclamation No. 124, 1977.

3.3 The Significance of Meeting One's Own Needs

As mentioned earlier, rural industrialization is designed to respond to the needs of those rural communities that can establish them with the least cost and minimum delay. It provides work for the manpower that cannot be absorbed by the agricultural sector, or that remain unoccupied during certain seasons, supplies it with items necessary for direct consumption and as input in the agricultural production, and increases its income not only by increasing agricultural yield but also by adding value to the agricultural product through manufacturing. Therefore, with some mobilization effort, the population can be made to participate enthusiastically in the establishment and running of the enterprises.

However, the major role of rural industries which is the production of industrial items to meet the rural population's specific needs should not imply the isolation of the rural industries from the economy of the country as a whole. As mentioned earlier, they must be part and parcel of the whole economy. For example, member countries of ESCAP (Economic and Social Commission for Asia and the Pacific) consider two kinds of link specially significant for non-metropolitan industries:

1. Linkage with the agriculture in input/output sense, through greater diffusion of economic activity in the rural areas, improvement in the income of the rural population, production of goods for the satisfaction of the rural population and greater utilization of the rural labour, and
2. Intra-industrial linkages through sub-contracting [19, No. 15, p. 6].

In the U.S.S.R., local industries have access to the general trading network, various local organizations, collective farms and state farms. In fact, only about one-third of the output is produced according to plans drawn up by local executive and planning bodies and directly by enterprises [19, No.15, p. 46].

3.4 Labour-Intensive Industries

Since rural industries are of necessity labour-intensive, they do not require a large amount of capital which the rural population does not have. They absorb a large section of manpower in relation to the capital invested, and manpower is not scarce, at least quantitatively, in rural areas. One of the advantages of rural industries often cited is that they have lower investment costs per job, and consequently more employment generation. This is another aspect that makes rural industrialization feasible in Ethiopia.

3.5 The Question of Motive Power

The most important problem to rural industrialization in Ethiopia is the absence of motive power, as the electrification of the countryside has not

yet started. The extreme importance of electric power for economic development and the construction of a communist state has been described by Lenin: "Communism is Soviet Power plus the electrification of the whole country" [7, p.86]. Its importance emanates from two facts: (1) It is an indispensable motive power for industrial production, and (2) It actually reduces the cost of production compared to other forms of motive power. In India, it was found out that a flour-mill using electric power incurred a cost of Rs. 656 only, compared with Rs. 811 when it used other forms of power. The same source indicated that a rice-mill, when operated by electric power, cost only Rs. 723, but Rs. 1,623 when fuel operated [19, No. 10, p. 89].

Until the electrification of rural Ethiopia is achieved, however, water, wind energy and motor diesel may be used as motive power. We may remind ourselves of the fact that flour-mills in the rural areas are run by water power. Saw-mills and other factories in the Addis Ababa region used this motive power at the beginning of the century.

4. TYPES OF RURAL INDUSTRIES

The types of rural industries must be those that can be established largely by local initiative to satisfy local needs.

4.1 Food Industries

Flour-mills, oil-pressing mills, bakeries, etc., can be established in the rural areas. Some of these, like flour-mills, are already widespread throughout the country. As a first step, improvements in organization, such as the formation of cooperatives, and in technology, such as using improved machinery and motive power, may be sufficient. As to the oil-pressing enterprises, their technology is simple and can be introduced in rural areas. In the Addis Ababa region itself, some oil factories use machines that have been assembled on the spot out of various machinery parts.

4.2 Textile Industries

Textiles form the most widespread cottage industry in the country. The principles of the production and the products themselves are not new to the population. Any one level, or all levels of the processing can be located in one rural area. This may be necessitated by the fact that the raw material, cotton, is localised in response to climatic requirements. The ginning of the cotton may not be possible in every locality, but spinning and weaving can certainly be ubiquitous in location. Knitting enterprises form another type of organization that can be established in rural areas.

4.3 Clothing

Tailoring is another widespread activity in the rural areas. According to the CSO publication cited earlier [4], there were in 1972-73 over 10,000 persons engaged in the activity in rural Ethiopia, excluding Eritrea and the nomadic areas. The rudimentary organization and skill are plainly not unknown to the rural population. Improvements in the organization and technology are needed to industrialise the activity. This will, among other things, result in the regularization of the activity by putting an end to the association between peak production and certain seasons of festival.

4.4 Leather Industries

This is another production activity known to the rural population for centuries. Products include dresses, shoes, sleeping-mats and sitting-mats, bags of various sizes, agricultural implements and a number of other articles. However, the activity has been paralyzed by cultural and technological factors. Culturally it is despised and technologically it is backward. Therefore, industrialisation of the activity implies improvement in the people's attitude towards the activity and in the technological and organizational aspects.

4.5 Wood Industries

Wood industries form another production activity with which the rural population is familiar. Various types of functional and decorative items are produced in the country by skilled tradesmen organized at cottage level and using less efficient traditional tools. Industrialisation of the woodwork cottage industries implies the training of the rural population in the production and care of the raw material, wood, in the organization of the work on a scientific basis and in the use of better tools.

4.6 Household Utensils

Earthenware and hardware of various types and for various purposes are produced at the cottage level. However, the production activity is adversely affected by climatic, social, organizational and technological factors. In order to industrialise the cottage industry, we need to attack all of these problems.

4.7 Metallic Products

Activities in this respect are not completely absent. Metallic items have been produced, using scrap iron or metals of local ore. Industrialisation of this cottage production is necessary, and involves improvement in organization, technology, and mining. The scope of the production must also be enlarged to include the fabrication of better agricultural and household items and machineries.

4.8 New Industries

In addition to the industries based on cottage production, the introduction of new areas of production is indispensable.

4.8.1 Production of Construction Materials

Included in this group are enterprises fabricating construction materials such as bricks, blocks, cement and metallic products. The production of solid construction materials has not been well known in the country, as manifested by the absence of structural remains. The exceptions are the statues, obelisks and monolithic churches in the northern part of the country. Even here, the use of one piece of stone rather than a number of pieces joined together with cementing material is the rule.

Based on improved traditional technology of baking pottery, or on a new method to be introduced, the rural population can produce bricks. The fact that some of the brick factories in Addis Ababa (e.g., Legesse Qerre Brick Factory) use an extremely simple technology and have no complicated organizational structure indicates the possibility of establishing such units in rural Ethiopia.

The production of lime by still simpler methods is possible. The author remembers having seen a Greek resident in Ethiopia produce lime in a rural area by burning limestone with wood in a hole dug by some peasants. He used the lime for damming a small river to produce water power for running a flour-mill. After more than twenty years of service, the dam still holds well.

There is no doubt that the need for such construction materials will grow fast in the years to come. Since the cutting of wood for construction purposes is limited by the government in order to preserve forests, the peasants will be forced to turn to other sources. As a result of villagization programmes and development projects, construction activity is going to increase. Therefore, this is an important area where rural industrialisation must expand.

4.8.2 Production of Agricultural Tools and their Inputs

It is a well-known fact that agricultural tools and implements have been produced in the country for centuries at the cottage level. It is also well known that these tools are generally crude and inefficient. The industrialisation of this activity involves a radical change in both the production method of tools and implements and in the products themselves. The production of mechanical tools to be driven by human, animal or mechanical power is indispensable for increasing yield. The use of these instruments must affect all the levels of production, such as ploughing, sowing, weeding, cutting, treshing, and winnowing.

Agricultural instruments alone do not increase yield. Improved or new methods of enriching and protecting the soil and crops must be found. The rural industrialisation must therefore include the production of improved manure, fertilizers, herbicides and insecticides.

The Ethiopian peasants associate the cultivation of the land with the raising of animals in most parts of the country. In addition, a large portion of the area of the country is occupied by nomads, even though not a correspondingly large proportion of the population is nomadic. To improve conditions, rural life needs improvement in livestock raising. Hence, the production of animal feed is another area where rural industrialization can and must expand.

It is impossible to exhaust the list of the necessary and possible types of rural industries. Persons directly linked with the problem may think of many more types of industries for rural Ethiopia. What we have enumerated above may be taken simply as examples.

5. THE SPATIAL STRUCTURE OF RURAL INDUSTRIES

The problem of locating industrial units is not easier than the problem of the industrialisation process itself. However, we have already made a general statement concerning location — that units should be established in the locality itself by the community that needs their services. The question here is: What should the spatial structure of the industries, resulting from the general statement above be, in the Ethiopian context?

5.1 Administrative Structure

The present division of the country's rural population and area into Peasant Associations [9 and 10] can be used as a basis for determining the spatial structure of the rural industries. The smallest division is the Peasant Associations at the *Chiqa** level with an estimated average area of 800 hectares or 20 gashas. Higher Peasant Associations are, from the lowest to the highest, at the *Wereda*, *Awraja* and Administrative Region levels.

These administrative and development divisions can serve as a basis for the establishment of rural industrial hierarchies. The largest rural industrial units which obtain their raw materials from large areas and which are designed to serve larger markets may be located in the administrative centre of the major regions, or in any other appropriate site, but should be managed at the Administrative Region level. Other units serving areas less than the

---

*In many places, *Chiqa* is the smallest administrative unit.

Administrative Region but more than the *Wereda* can be established and managed by the *Awraja* Peasant Association. Depending on the size and purpose of each production unit, location and management can be done at the level of the *Wereda* and *Chiqa*.

It is appropriate at this time to raise a more specific question of location. The *Chiqa*, on the basis of which the smallest Peasant Associations are formed, has no administrative centre for itself; accordingly, there is no administratively determined site for the location of factories at the *Chiqa* level. In such cases and where settlement is dispersed, the decision of the location of the future village site must precede the decision of the location of the processing enterprise. Once this decision is made, the location of the enterprise(s), as mentioned earlier, serve as the site around which the village will grow.

In cases where villages already exist, the location of enterprises at village sites must not be automatic. The location of processing units involves the investment of capital which is difficult to move to a new site. Therefore, existing village locations must be critically examined to determine if their locations are the best within the area for developmental purposes, before industrial enterprises are located there.

5.2 Traditional Handicraft Production Centres

Another factor that affects the spatial structure of the rural industries is the specialisation of areas in specific handicraft productions. Some regions were well known for spinning and weaving. For example, the areas of Menz, Debre Birhan, and Werreillu are noted for the production of *bana*, a rough but durable woolen blanket, and *bernos*, a type of cloak made of the same material. The areas of Adwa, Aksum, and Meqele in the northern part of the country, and Dorze, Wolayita, Sidamo, Gamu, Amaro, Konso and others in the south, are famous for various types of cotton cloths. Since such areal specialisation may be the result of the availability of raw materials in relatively large quantities, and since the presence of persons skilled in these activities is advantageous to the development of textile industries, the spatial structure of rural manufacturing can be affected by them. Areas like Jimma, Kefa, Nekemte, Harer, Angolela, Moret and Debre Tabor are known for metallic products, though very rough, and must have significant influence on the regional structure of industries.

5.3 Raw Materials and Markets

Raw materials and markets also greatly influence the spatial structure of the rural industries. The availability of raw materials in an area is affected by geological, climatic, and social factors which in turn influences the location of industries.

The raw materials of agricultural origin are different in highland Ethiopia from those found in the lowlands. In the former case they are most probably cereals, oil seeds, fruits, stimulants, etc., while in the latter they are hides, skins, meat, milk, etc. Variation of available agricultural raw material within each major region metnioned above is expected. Undoubtedly, industries processing agricultural raw materials will accordingly vary.

The market structure in rural Ethiopia will not be uniform. Agricultural inputs that the rural industries are expected to supply in the highlands will be products such as fertilizers, agricultural machinery, herbicides, etc., while in the lowland they will mainly be fodder, vaccination products, etc. Of course, we do not imply here that each of the above regions will continue to produce only the type of rural products that it is producing now; there will be changes in production activities. The important principle that we need to keep in mind is that there is a necessary relationship between the industrial raw material, the type of agricultural product, the type of rural production activity and the industrial product needed in that area.

CONCLUSION

In this paper, an attempt has been made to show that rural industrialization in Ethiopia is necessary and possible.

Some of the objectives of rural industrialization have been indicated: the suppression of the dichotomy between town and country, revolutionizing rural economy, generating job opportunities and regularly employing the rural manpower, and socialization of the rural activity.

Some of the factors making rural industries possible have been enumerated: the presence of local raw materials, large rural manpower and market, the small amount of investment capital required per job created, the existence of a traditional base in the form of cottage industries and the fact that rural industries are designed mainly to respond to rural needs.

As to the spatial structure of the rural industries, the possibility of using the division of the rural area and population into Peasant Associations as a framework was indicated, with the warning that a critical examination of the present settlement patterns must be made before they are used as sites of rural industries.

The author would like to indicate once more that as his aim was to stimulate reflection, no specific strategy for rural industrialization has been proposed in the article.

REFERENCES

[1] Bekure Woldesemait, *L'Industrialisation d'Addis Ababa et ses effets économiques et sociaux.* Thèse de doctorat, Bordeaux, 1976 (not published).

[2] Bettelheim, C., *Révoution culturelle et organisation industrielle en Chine*, Armand Colin, Paris, 1975.

[3] Buchanan, K., *L'Espace chinois: ses transformations des origines à Mao Zedong* (trans. from English), Armand Colin, Paris, 1970.

[4] C.S.O., *Advance Report on the 1972-73 Rural Survey of Cottage and Handicraft Industries*, Addis Ababa, 1975.

[5] Dumont, R., *Chine: la révolution culturale*, Editions Du Seuil, Paris, 1976.

[6] Karston, K., *The Economics of Handicrafts in Traditional Societies: An Investigation in Sidamo and Gamu Goffa province, southern Ethiopia*, Weltforum Verlag, Munchen, 1972.

[7] Lenin, *On the Development of Heavy Industry and Electrification*, Progress Publishers, Moscow, 1975.

[8] Marx, Engles, Lenin, *On Scientific Communism*, Third Printing, Progress Publishers, Moscow, 1976.

[9] PMAC, *A Proclamation to Provide for the Public ownership of Rural Lands, Proc*, No. 31, of 1975, Addis Ababa, 29 April 1975.

[10] PMAC, *A Proclamation to Provide for the Organization and Consolidation of Peasant Associations*, Proc. No. 71 of 1975, Addis Ababa, 14 December 1975.

[11] PMAC, *Proclamation to Provide for the Establishment of Cooperative Societies*, Proc. No. 138, Addis Ababa, 1978.

[12] PMAC, *Proclamation to Provide for the Establishment of Handicrafts and Small-Scale Industries Development Agency*, Proc. No. 124, Addis Ababa, 1977.

[13] PMAC, *Urban Dwellers' Association Consolidation and Municipalities Proclamation*, Proclamation No. 104, Addis Ababa, 1976.

[14] PMAC, *Ye'ede Tibebat Balemoyawoch Amrachoch Hibret Sira Mahiber Memeria*, Addis Ababa, Hamle 1971 (Amharic).

[15] Solodovinkov, V. *et al.*, *Non-capitalist Development, A Historical Outline*, Progress Publishers, Moscow, 1975.

[16] Stalin, J., *Les Problèmes économiques du Socialisme en U.R.S.S.*, Editions En Langues Etrangers, Peking, 1974.

[17] Tyagunenko, V.L. *et al.*, *Industrialisation of Developing Countries*, Progress Publishers. Moscow, 1973.

[18] U.N., *Community Development and Economic Development, Part 1, IIa*, Bangkok, 1960.

[19] U.N., *Small-Industry Bulletin for Asia and the Far East*, No. 9, 1972; No. 10, 1973; No. 11, 1973; No. 14, 1977; No. 15, 1979.

[20] Yuan-Li Wu, *The Spatial Economy of Communist China*, F.A. Prueger Publishers, New York, 1967.