

Rural Development in North East India through the Use of Industrial Clusters

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ABSTRACT:There is nothing new about industrial clusters. Since Ven Thunen's 1826 Location Theory, Marshal's Industrial District Theory, Max Weber's Industrial Complex Theory, and Michal Porter's Industrial Cluster Theory, it has gone through a variety of economic theories (1990). Many policymakers, academics, and researchers have embraced the cluster idea as a key method for rural development (economic and industrial). Clusters are being used in both established and emerging economies to promote rural small and home businesses, as well as the communities that support them. There are several advantages to focusing on a cluster rather than an isolated enterprise, such as effective knowledge of the area up gradation, developing skills, community empowerment, caste people's empowerment and innovation. Thousands of small & rural businesses run by local communities and diverse castes may be found in the North East. Local resources and traditional skills provided by rural residents of NE are the foundations of these enterprises (e.g., pottery industry, cane & bamboo, brass metal, silk cloth making, Bell metal, Terracotta etc.). Rural households' businesses have provided a long-term source of income for the inhabitants of NE. Despite the efforts of the national and state governments, these rural families' industries in this region aren't operating as well as they should be. Cluster development is a strategy the government (Central) has used to revitalize ailing small and rural enterprises. Productivity, innovative ideas, and forming new businesses all contribute to the firm's competitive edge. On the topic of NE cluster development activities and the impact they have on rural economic and industrial development, this study will focus.

KEYWORDS:Industrial cluster, Innovation, Productivity, Entrepreneurship development, Livelihood development, Integrated farming system.

INTRODUCTION:

The Indian economy has historically been divided into two parts: rural and urban. 70 percent of the Indian population resides in rural regions, making rural India critical to the country's economic success. Agribusiness is the primary source of income for rural residents. Additionally, the rural economy relies on non-agricultural sub-sector activities such as cottage & village industries such as khadi and handlooms and handicrafts, trading of general products, small stores, petty merchants and services like as transportation, communication and banking. A number of recent studies have demonstrated that in India, the population's reliance on agriculture and its participation in farming has been declining in recent years. The agriculture sector's contribution to GDP has dwindled to barely 18%, as can be shown. People in rural areas have been forced to abandon farming due to a shortage of cultivable land, a lack of irrigation infrastructure, a lack of technical up-gradation in production, and repeated floods, among other factors. Taking the north eastern states as an example,

the agriculture is underdeveloped as well as subsistence in nature, low industrial growth of the region but under development of basic infrastructure have forced the rural population to engage in some business activities based on their natural/traditional skill [1]. Small businesses are critical to the economy of every country. It is estimated that the SME (small and medium businesses) sector accounts for 40% of industrial output, 35% of manufacturing exports, and employs 24 million people in more over 13 million units of production. Compared to 2001-02, where each unit's employment was at 4.48, that figure has now risen to 6.24 for 2006-07. There are a number of businesses here, such as food preparation, chemical and pharmaceutical, sporting equipment, leather goods and plastic items.

Thousands of tiny domestic enterprises operate in rural parts of India's North Eastern Region (NER). Some groups and castes have traditionally employed these activities in their homes. These tiny businesses are characterized by the following: • They are largely labour pooling businesses. Household industries in this region are mostly based on caste and community, with only immediate family members serving as both proprietors and employees. There are a lot of industries based on local resources. • Most of these businesses are conducted out of the owners' homes. There is a lack of money for new product, service and management development as well as access to information from other sources due to a lack of resources.

Since India's independence, the country's government has implemented a variety of programmes to support the growth of small and home-based companies. General Industrial Parks, Product-Specific Industrial Parks, Industrial Estates, Special Economic Zones (SEZs), etc., are all part of the policy's goals. However, despite the efforts of both the national and state governments, the artisan and domestic enterprises of NER were unable to grin. Rural small-business growth has been largely eluded by current strategies aimed at helping rural families create their own small businesses. It was in 1997 that the federal government of India and UNIDO chose the cluster development plan as a pilot project for the development of rural home businesses to overcome some of the constraints of government policies [2]. There is a commonality and complementarity in goods, services, inputs, technology, transportation, warehousing, as well as communication amongst clusters of enterprises. These tiny and home-based companies dominate industrial clusters in emerging nations. There are several industrial clusters in India that have grown and developed over a long time [3]. A few examples include the artisanal, classic, and contemporary types of businesses you'll come across. The majority of the clusters formed as a result of long-standing customs in the areas they served. Clusters of handicrafts and handlooms in rural areas, defined as 'geographically concentrated household units manufacturing handicraft/handloom items, frequently belong to a traditional community producing long-established products for generations with the skill of millennia old.' By offering high-quality goods and services that benefit the entire region, cluster-based industries are able to provide employment and growth possibilities for their members and bring in new customers and public investment [4]. Innovation (in goods and manufacturing, decision-making process, management, etc.), skill up gradation and entry into new local or regional markets are all possibilities provided by cluster. As a result of the cluster, the enterprises and participants in the clustered market and society are identified. • It increases the companies' negotiating leverage with suppliers and customers. This is something that a small business needs but is unable to procure because of the low economies of scale involved. By making the most of available local resources, such as people,

forests, and water, Cluster contributes to the expansion of the area economy. Only by creating an industrial cluster was it feasible to achieve long-term communal and rural development [5]. Pro-poor growth is supported by the cluster in countries like India and in particular in the North Eastern Region (NER).

In NER, the actual cluster development activities began in 2008 with the goal of assisting the traditional small home enterprises to bring about a sustainable rural economic growth. In the Northeast, there are already 305 SSI clusters (small scale industry) in operation, according to an MSME study. Handloom & handicraft Micro industrial clusters are included in the list of 263 clusters. There are still a number of SSI cluster units in the works in this area. The following is an analysis of the Handloom, Handicraft, and Micro Enterprise Cluster in Northeast India [6], done on a state-by-state basis:

According to Table 1, the influence of unregistered & unorganised SSI clusters in the Northern Hemisphere is significant. More than 63,000 units employing 1, 60,000 individuals in this region are providing an alternative source of work and income for the rural population.

Name of state	Nos. of cluster	Nos. of units	Employment
Nagaland	3	3170	12734
Manipur	13	18409	45347
Meghalaya	3	4933	10336
Assam	24	36683	90920

Table 1: In North East India, the status of an unregistered SSI cluster

IMPORTANT ROLE OF CLUSTER:

The economic phenomena of the industrial cluster are not new. It was conceived a long time ago, but only towards the end of the nineteenth century did many emerging countries begin to apply it as a result of globalization and liberalization. Today, every industrialised and developing country is using clusters to spur regional economic growth in their own regions. Cluster implementation for economic growth has a wide range of concepts across countries and regions. Developed countries like Italy, Japan, and the United States are more technologically advanced, therefore their ideas for the cluster method are to focus on worldwide market penetration and competitiveness, such as in the cluster approach [7]. Development of rural economies, community development (e.g., via the enhancement of traditional skills and knowledge), pro-poor growth and market development are all part of the cluster method in developing countries like India. Indian micro business clusters are estimated to number approximately 6000, according to a survey by the MSME foundation in 2007. More than 4000 artisanal and 363 non-artisanal clusters are found in India, according to a UNIDO database. There is an overall dominance of traditional artisan clusters in rural areas of India that are likely to be controlled by small businesses. Small artisanal communities in India are critical to the growth of the country's economy. The following are some of India's economic gains from clusters:

- Co-operation between the federal and state governments, local institutions/organizations (NGOs, SHGs), international organisations (UNIDO, UNDP), and other educational institutions is fostered by the cluster.
- Unemployment in a less developed area can be reduced by the labour pooling feature of local industrial clusters.
- There is a strong correlation between the formation of clusters in one place and the establishment of other major businesses in the vicinity.
- A high-quality product or service draws suppliers, customers, and public investors in infrastructure, which helps all businesses in the region.
- Innovation in goods and manufacturing, services and management, etc., is shared by the clustered businesses as a direct result of their cooperative efforts.
- The demand for labour is increasing, as is the wage level for workers.
- Agglomeration advantage increases the productivity of small businesses and allows them to access markets thru a division of labour in a cluster.
- Individual small businesses can specialize in certain activities and get access to specialized expertise, services, and inputs through the cluster.
- Costs for supplies, labour, and information can be reduced by the consolidation of small businesses.
- Firms of all sizes may now benefit from the knowledge spillover in clusters that would otherwise be impossible for them to gain through traditional market channels such as new goods and manufacturing processes.
- The capacity of clustered players to compete in marketplaces may be strengthened by local cooperation, both by individual enterprises and cluster institutions, by pooling costs through joint tasks such as shared distribution and marketing.
- International trade and the free movement of people and things may help local businesses compete on a global scale and increase their economic potential.

Poverty is a long-standing economic and social problem that has hampered the progress of many countries in the world's emerging regions. A person's ability to buy goods and services is essentially determined by their income, consumption, and their tangible belongings and assets. Since India's independence, the country's government has implemented a variety of programmes and policies to combat poverty. Self-employment programmes, wage employment programmes, public distribution systems, and other socially oriented initiatives, such as Jawahar Rozgar Yojana, the National Rural Employment Guarantee, the Food for Work Program, and the Crash Scheme for Rural Employment, fall into these broad categories: self-employment programmes. Some states or areas of India have unquestionably benefited from this policy. Limitations may be found in almost all of these policies. The difference between rural and urban poverty reduction persists. The poverty rate in rural regions was 28.3%, compared to 25.7% in urban areas, and 7.5% across the country, according to the NSS report (2004-05). Small farmers, marginal farmers, and artisans in rural India are all suffering from poverty. Both farming and artisanal labour are not their full-time occupations for them. When India's government, working with UNIDO, decided to use the Cluster Development Approach as part of a development project to combat poverty in rural areas, notably in the artisanal sector, it made history. It has been discovered that the industrial cluster has a good influence on poverty reduction through

many empirical research. Two key dimensions - income & employment - connect clusters and poverty.

Cluster-based poverty reduction is a topic on which there is a dearth of research. These are only some of the findings from the 2004 research, "Industrial Clusters and Poverty Reduction," by the United Nations Development Organization (UNIDO). The emerging or survival cluster, which has a direct influence on poverty, is shown by the cluster characteristic. For low-wage employees and their families, the more matured cluster has a greater influence on poverty reduction. Small businesses benefit from the cluster process because it increases their capacity to get market access through externality benefits and to join forces. Cluster workers' incomes, assets, and capacities can all benefit, which helps alleviate poverty and other forms of social deprivation. Firms' technological skills develop as well as workers' and small producers' abilities as a result of the cluster dynamics. Some groups and caste in India are intimately linked to the economic & socio-economic growth of clusters, which have several case studies. Their research is to examine the influence of clustering on a certain group of individuals, primarily the poor. It's a case study of Assam's Barpeta district that we examine in this research. That's one of the most significant states in the region. Their modest household enterprises provide the backbone of their SGDP and are intimately tied to their culture and customs.

DEVELOPMENT IN INDIA'S NORTHEAST: MUSHROOMS

Mushrooms are a delicacy in the hill states in the North-Eastern area. A variety of regionally popular mushrooms, both toxic and edible, may be found growing in the wild. Mushroom production in the United States is currently the subject of regular, methodical programmes. Most states' horticulture departments have a plan to promote mushrooms. There has yet to be a large amount of commercial mushroom production. Efforts in this approach are being made by both government and non-profit groups. Efforts like these must go on. It is difficult to move goods across the region by land or sea, which has slowed down the region's economic growth. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura make up the so-called Northeast, but Sikkim has also been included in development programmes [8]. Due to a lack of industry and agriculture that provides only enough food for the most basic human needs, there is a high rate of unemployment. Any economic growth plan for this region should take into account the venture's profitability, job creation's climatic adaptability, and people's interconnectedness [9]. Production of mushrooms is an example of an agro-industrial business with low volume but great value. Aside from the fact that it's extremely profitable, it's also labor-intensive and doesn't require a lot of fertile land. Mushrooms can be raised in rooms or cottages on slopes or other unused terrain. Due of its interior location, this business endeavour is ideal for women. Having a large profit margin and a lot of manual labour, it might draw in the younger generation.

DEVELOPMENT IN INDIA'S NORTHEAST: FERMENTATION OF BAMBOO SHOOTS

Savory and distinctively flavored, soibum is a white fermented bamboo shoots product made only by fermentation, with no additional salt or other ingredients added. These bamboo shoots, which are delicate and succulent, are fermented into another acidic delicacy because of the huge demand for them. Fermentation of the fermented product known as "Soibum" in Manipur is made possible by the naturally occurring spontaneous fermentation of succulent bamboo shoots. Salt is not used in the

traditional Soibum processing method. The formation can be performed in a variety of methods, depending on the level of expertise of the practitioners. Andro and Andro-type fermentation are two of the most common methods of traditional fermentation. Soibum is commonly fermented using the Nonay method, which is popular and widely used. A chamber composed of planks and bamboo is used for most Nonay fermentations; there is no set size for these chambers, which are assembled to the practitioners' preferences. There is a single lid on top of the chamber's perforated bottom. The leaves of a certain plant are used to line the chamber's walls, save for the upper one. The polythene sheet liner is placed within the lea's enclosure after the lea's enclosure.

The compartment is then filled with thin slices of succulent bamboo stalks. First, the polythene sheet is applied to a large portion of the chamber's upper surface, then the leaves. After that, the mash is placed under the weights for pressing. Soibum may be made with proper pressing of the mash, according to reports. Polythene sheets have been said to be employed as the chamber's innermost lining, according to reports. Polythene sheets were not employed in the initial way of making soibum. An alternative method of andro fermentation has been used. The practitioners used a roasted earthen pot as a fermentation chamber. The pot's body is large, but its thin neck makes it very slender. Slices of the succulent shoots are then made. The leaf or polythene enclosure is not utilised in this manner. The slice is placed in a number of the pots. Another raw material mash is added after the fermentation has begun, as indicated by the formation of the soibum distinctive scent. Once the pot is full with the bamboo slices, the process repeats again. The Nonay type of soibum is more acidic than the Andro kind of soibum. In addition, the succulent shoot's colour does not appear to be much altered. Brownie soibum production is linked to the Andro type. Analysis of soibum's protein, amino acid, reducing sugar, nonreducing sugar, total sugars, as well as carbic acid and thiamine have been undertaken.

BARPETA DISTRICT (ASSAM) CASE STUDY ON CANE & BAMBOO CLUSTER:

Cane & bamboo craft cluster in Raipur village in Barpeta district. One international border and four other district borders surround this 90-kilometer area from the state capital of Assam. In 2008, the Anchalik Gram Unnayan Parishad (AGUP) under the SFURTI projects of KVIC created this cluster by covering five villages, namely Raipur, Bhaluki, Dhupguri, Joshihatigaon, and Joshihatichar. Cane and bamboo products have long been important to the local economy and culture, so the people of this hamlet have a lot to be proud of. As a result of AGUP's involvement in this cluster, the supply chain has been strengthened while at the same time fresh design contributions have been provided. CFC, direct links with international clients, and participation in various exhibitions and trade fairs were the key factors in the establishment of the CFC (Common Facility Center).

There were about 650 cane and bamboo base industry workers directly employed by AGUP in Barpeta district as a consequence of their efforts. Their monthly salary grows from Rs. 700 to around Rs. 4,500. Cluster craftsmen in Raipur village will profit from the introduction of a CFC measuring 1300 square feet, which includes cutting-edge machinery. As a result, manufacturing has increased, and the degree of design and other appearances has reached an international standard. In addition to this CFC, a further 100 craftsmen with the same hamlet received toolkits to aid in their own set-up. Provided by IIT, Guwahati is a quality control & improvement system for design, processing, and treatment. Several exhibitions have been held in Guwahati and other regions of India as a result of

market promotion support. To make the selling of bamboo and cane items more convenient, a showroom has been opened on Barpeta Road. The cluster strategy has been developed and the craftsmen have been motivated as part of the capacity building program's awareness camp and capacity building training. DC Handcraft has provided ID cards to the artists in order to provide them with social security in the form of insurance.

CONCLUSION:

In an economy, clusters play a critical function. To alleviate rural poverty and provide jobs, it serves as an economic development tool for rural areas. There are several examples of governments in rich and developing nations using the cluster model to spur economic growth and alleviate poverty in the regions in question. Because of this, NER may take use of the cluster approach to regional and rural economic development, taking into account all its advantages. The local economies of the North East will be revived as a result of this. Cluster formation may be greatly aided by a variety of institutional and governmental measures.

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