

## Cane and Bamboo Based Industrial Cluster in Assam – Profitability and Vulnerability

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**Abstract:** The study synthesizes the findings of the Barpeta Cane and Bamboo Craft Cluster in connection with its structure and functioning, productive capacity and income generation. The study reveals that in spite of various attempts by the central and state government, the rural households industries in this region are not performing up to the mark and these industries remain unorganized producing non-mechanised product. Despite many artisans of the cluster primarily depend upon traditional techniques of production, a few of them trying to cope up with the recurrent changing demand of the buyers by means of creating new design. However, there are no sufficient promotional measures to attract the consumers on a continuous basis. Besides, neither the credit facilities were provided sufficiently to develop the industry nor the artisans get tax concessions for the sale of the cane and bamboo products. However, there is a growing demand for bamboo products in the local market and in the regional level. The Cluster has been manufacturing different types of cane and bamboo craft items like bamboo mats, decorative items, furniture, etc. Approximately, 1382 artisans have been benefited in this cluster, wherein 40 percent are women. The monthly sales of most of the artisans were in the range of Rs. 10,000/- to Rs. 25,000/-. The study concludes that government grant is the urgent need to promote livelihood through cane and bamboo based products. Emphasis is to given to use modern machineries in the process of production. Government should play pivot role in marketing the cane and bamboo products.

**Keywords:** Craft, Cluster, Innovation, Traditional Skill, Employment Generation.

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### I. Introduction:

Cane and Bamboo based handicraft sector is predominant in the Indian handicrafts and there are millions of people who depend on it as their source of livelihood. The ancient cane and bamboo craft is rural based involving nominal investment and minimum infrastructure. To give new life to the existing small and rural industries the government (Central) has adopted the policy of cluster development with a view to provide competitive advantage to the firm in three different ways, namely *productivity*, *innovation*, and *formation of new business firms*.

In Assam cane and bamboo craft, carried out traditionally in almost every household in the rural areas, has playing an important role in the rural economy. The sector is functioning in an unorganized manner that has given rise to certain problems like price of raw materials, wages, employment, rise of intermediary, etc. which have deprive the artisans of actual economic benefits.

Barpeta Cane and Bamboo Craft is an industrial cluster<sup>1</sup> that has developed naturally. Looking into the economic importance of artisanal work, the Khadi and Village Industry Commission (KVIC, Guwahati) under the Scheme Fund for Regeneration of Traditional Industries has taken up the cluster development initiatives (CDI) at Chakchaka block of Barpeta district during the year 2008. The KVIC with the implementing agency (IA) Anchalik Gram Unnayan Parishad (Jania), an NGO, established Common Facility Centre (CFC) at Raipur Village by covering another four villages- Bhaluki, Dhupguri, Joshihatigaon. The Cluster has been manufacturing different types of cane and bamboo craft items like bamboo mats, decorative items, furniture, etc. Its contribution towards livelihood generation cannot be overlooked. It is a household based industry where the household member of any sex and age group can involve in the process of production. However, cluster is still primarily dependent upon traditional techniques of production and there are not much promotional measures to attract the consumers on a continuous basis. Under the circumstances, present study is an attempt to explore the role of cane and bamboo craft in promoting rural livelihood. The specific objectives of the study are to-

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<sup>1</sup>Industrial clusters are widely understood as a worthwhile target for local economic development and poverty alleviation

- i. Explore the structure and functioning of the industry.
- ii. Assess the productive capacity and income generation of the handicraft artisans.
- iii. Assess the challenges faced by the industry and thereby work out some policy initiation for the development of the cluster.

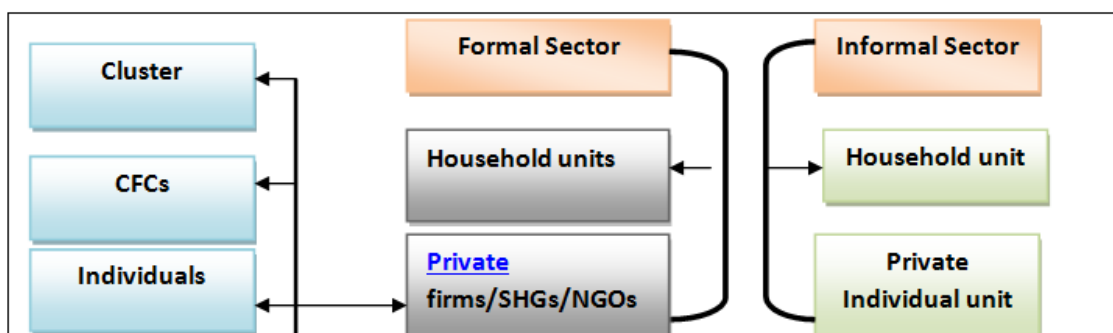
## II. Methodology

The study is exploratory in nature and based on primary as well as secondary sources of information. The study considered industrial cluster as geographically concentrated households units producing cane and bamboo products. The artisan households units belong to Barpeta Cane and Bamboo Craft Cluster constitute the population of the study. The cluster’s households were the ultimate unit of observation. The primary data were collected from the sample cluster’s household using a semi-structured schedule. The information sought were about household data, artisan’s personal data, standard of living and welfare, benefits received from Cluster Development Initiative (CDI), etc.

A snowball sampling technique was followed while selecting the potential respondent artisans from the population. All together 50 respondents were interviewed using a semi-structured schedule. The secondary sources of information like Annual Report, Barpeta Cane & Bamboo Craft Cluster, book and journals, internet websites, etc. were also utilized wherever necessary.

### Structure and functioning of the Cluster

Functioning of Barpeta Cane and Bamboo Craft Cluster represents both a formal and informal setup. The formal sector of the cluster has two major components viz-household unit and private firms or organizations. Traditional and non-traditional cane & bamboo workers, who registered individually with the Office of DC Handicrafts & have Identity Card issued from this office are included in first component. Private individual firms or organizations form the second component of the formal sector owned by individuals, Non-Government Office’s (NGOs) and Co-operative societies. They are registered under different government institutions according to their purpose/activity.



*Figure 1: Structure of Barpeta Cane and Bamboo Cluster*

The informal sector has no structural frame work and authorized support from government and other institutions. Individuals and individual private firms are the key participants of this sector and they are found spread over all the states.

### 1. An Assessment of Productive Capacity and Income Generation

Following table (table-1.1) shows the percentage of artisan family to the total family in pre intervention and post intervention period based on sample observations. As depicted in the table the percentage of artisan family to the total number of family has increased to 78 percent during post intervention period from around 56 percent during pre-intervention period.

Table 1.1: Percentage distribution of artisans in pre and post intervention period						
Villages	Pre intervention (2007 or earlier)			Post intervention (2017)		
	No of hhs	Artisans family	% of artisans family	No of hhs	Artisans family	% of artisans family
Raipur	318	170	53.46	326	260	79.75
Bhaluki	425	250	58.82	435	320	73.56
Joshihatigaon	300	160	53.33	302	250	82.78
<b>Total</b>	<b>1043</b>	<b>580</b>	<b>55.61</b>	<b>1063</b>	<b>830</b>	<b>78.08</b>

*Source: Field Survey, 2017*

Occupational distribution pattern of the households in the surveyed villages during pre and post intervention period shows that only 33 percent households were engaged in artisans work during pre intervention period whereas the figure has increased significantly to 73 percent during post intervention period (table-1.2)

Table-1.2: Occupational distribution of households			
Occupation/Activities	Post intervention period		Pre intervention period
	Primary occupation (%)	Secondary occupation(%)	Primary occupation (%)
No fulltime and fixed occupation			30.00
Agriculture	15.00	15.00	28.00
Business	10.00		3.00
Agricultural labour	2.00		6.00
Artisans work	73.00	10.00	33.00
Total	100.00	25.00	100.00

*Source: Field Survey, 2017*

➤ **Possibility of income generation**

An attempt was made to calculate the maximum income that could be generated through various craft products based on the assumptions-

- The artisan produce any one of the following products, ie. Sofa, Lamp or Flower stand.
- An artisan works for 8-10 hours/day and for 25 days in a month.

The estimations furnished in table 1.3 show that an artisan can earn maximum monthly income of Rs. 22,900 /- (wage + profit)if produce sofa. Similarly the income stood at Rs. 18,750 /- and 13,500 /- if they produce lamp and flower stand respectively.

Table 1.3: Monthly production and income of artisans			
	Sofa	Lamp	Flower stand
Qnty produced/month	2.5	25	300
Pdn time (unit/hours)	80.00	8	0.66
No of days working/month	25	25	25
Value of product	35000.00	24000.00	15000.00
Cost of pdn (excluding lab cost)	12,100.00	5250.00	1500.00
Net income earned	22,900.00	18750.00	13,500.00

*Source: Calculated by authors based on field surveyed data*

➤ **Increase in income and assets**

In the absent of alternate job opportunities, the cane and bamboo craft cluster has been contributing a lot in increasing the annual income of the artisans and thereby improving their living standard. The following table (table-1.4) shows the data relating to the annual average income of the artisan of the Barpeta Cane and Bamboo Craft Cluster since 2005-06. The data support the fact that the bamboo craft works has led to the income enhancement of the artisans over the year.

Table-1.4: Distribution of annual income per artisan		
Year	Annual income (in Rs.)	Increase in income (in Rs.)
2005-06	10800	-
2006-07	13200	2400
2007-08	14400	1200
2008-09	41000	26600
2009-10	58320	17320
2010-11	60000	1680
2011-12	72000	12000
2012-13	79000	7000
Total	348720	68200

*(Source: Annual report of Barpeta Cane and Bamboo Craft Cluster, 2010)*

Following table (table-1.5) shows the household assets possessed by the artisans during pre and post intervention period. The data shows that the number of artisan household owing a particular household asset has increased substantially during post intervention period.

<b>Table1.5- Household Assets Possessed by the Barpeta Cane and Bamboo Craft Cluster Artisans</b>			
	Assets	Pre intervention	Post intervention
Live in own house/rented house	Rented house	nil	nil
	Own house	100.00	100.00
Status of house	Pucca house	5.00	40.00
	Tin roof but kutchra	15.00	50.00
	Kutchra house	80.00	10.00
Electricity available		20.00	95.00
Puccalatrín		0.00	65.00
Kutchalatrín		85.00	30.00
Own source of drinking water		75.00	98.00
Fuel for cooking	Firewood	95.00	15.00
	LPG	5.00	85.00
TV		5	60.00
Cycle		26	100.00
Motor cycle		3	22.00
Four wheeler		nil	4.00
Refrigerator		nil	8.00
Mobile phone		nil	100.00
Fan		nil	95.00

Source: Field Survey, 2017

### ➤ Profit earned per unit of product

Some exercises were run to see the profitability from different handicraft items produced by the artisans. The estimated amount of gross profit per unit of item is shown in the table 1.5.

<b>Table-1.5 Estimation of cost of production and profit margin of selected product</b>				
Head of costs	Sofa(Rs/set)	Triangle Chair (Rs./piece)	Lamp (Rs./piece)	Flower stand (Rs./piece)
1	2	3	4	5
Raw materials				
I. Bamboo	1750.00	110.00	80.00	2.00
II. cane	1400	50.00	20.00	1.00
Chemicals & dyes	350.00	50.00	10.00	0.00
Wage	4000.00	350.00	400.00	30.00
Direct consumables used in pdn	1200.00	180.00	100.00	1.00
Utilities (elect, water, etc)	150.00	20.00	0.00	0.00
Other cost (gas)	400.00	30.00	0.00	1.00
Cost of production	100,50.00	790.00	610.00	35.00
Price of product	14000.00	1000.00	800.00	50.00
Gross profit	3950.00	210.00	190.00	15.00

Source: Self calculated based on field survey data.

The profit per unit is substantially greater in case of heavy products like sofa, chairs, bed, etc. but it requires a heavy investment in the part of the artisans. Therefore, it is not possible for the poor artisans to specialize in the production of such profitable products.

## 2. Challenges faced by the industry

The challenges faced by this industry are categorized into Fundamental, Market related, Input related and Technological.

### ➤ Fundamental

- Often less than 5% of the end price goes to the artisans - the middlemen get the rest <sup>2</sup>
- Most of the artisans are below the poverty line, illiterate, and in the poorest, most remote areas
- Younger generation is not interested.
- Some of the very older traditional crafts are about to move away from heritage.

<sup>2</sup> V. Anitha (2009): 'Structure and functioning of bamboo handicraft industry in south india', BTSG R&D Project, sponsored by the National Bamboo Mission, Government of India

➤ **Market related**

- Shift in consumer choice from artisanal goods to factory made ones
- Problems of intermediaries
- Lack of marketing skills
- The traditional craft skill, however beautiful, needs sensitive adaptation, proper quality control, correct sizing and accurate costing, if it is going to win and keep a place in the market.

➤ **Input related**

- Inadequate access to credit for both working and fixed capital
- Problems with raw material supplied.
- Low wages.

➤ **Technological**

- *Technological obsolescence*
- Non-use of simple machines
- Low efficiency and quality of output

**3. Policy Initiation**

The study reveals that the cluster is still primarily dependent upon traditional techniques of production and there are not much promotional measures to attract the consumers on a continuous basis. Besides, neither the credit facilities were provided sufficiently to develop the industry nor the artisans get tax concessions for the sale of the cane and bamboo products. Therefore, the study concludes that government grant is the urgent need to promote livelihood through cane and bamboo based products. Emphasis needs to be given to use modern machineries in the process of production. Government should play pivot role in marketing the cane and bamboo products.

More specifically the study asserts the following suggestions:

- ✓ Easy credit facility should be provided to the needy artisans to undertake bulk production.
- ✓ Modern equipment should be provided by the government to the artisans.
- ✓ Promotional measures should be undertaken by the government to make the products popular among the masses.
- ✓ Training should be imparted to the artisans to make more innovative products.

**III. Conclusion**

Potentiality of Cane and Bamboo based cluster in terms of income and employment generation can never be overlooked. Modern cane and bamboo based products are becoming decorative items for many peoples residing in urban areas. These products are ecofriendly and can thus protect the green planet. It has an international demand but the market is not yet explored completely. Thus, every effort must be made for all-round development of this industry. Government grant is an urgent need to produce more products. Emphasis needs to be given on use of modern machineries. Traditional tools and equipments should be replaced with power driven machines. Besides, Government should play pivot role in marketing of cane and bamboo products.

**References**

- [1]. Das,R. and Ashim Kumar Das (2011): ‘Industrial Cluster: An Approach for Rural Development in North East India’, *International Journal of Trade, Economics and Finance*, Vol. 2, No. 2, April 2011
- [2]. DuttaPayal (2014): ‘Fostering economic development through Msme a case study of the barpeta cane and Bamboo craft cluster’, *Indian Streams Research Journal*, Volume-4,issue-5
- [3]. GoI (2010): Annual report of Barpeta Cane and Bamboo Craft Cluster under SFURTI,sponsored by KVIC, Ministry of MSME,GoI
- [4]. PandeyK.M.and Deepak Sharma (2013): ‘Energy, quality and productivity audit of kvic based industries in barak valley, Assam, India’, *Journal of Environmental Research And Development*, Vol. 7 No. 4A, April-June 2013.
- [5]. V.Anitha (2009): ‘Structure and functioning of bamboo handicraft industry in south india’, BTSG R&D Project, sponsored by the National Bamboo Mission, Government of India

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