

CLUSTER DEVELOPMENT INITIATIVE FOR POVERTY ALLEVIATION : A CASE STUDY

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ABSTRACT

From a relatively minor sector of a largely part-time and subsistence in nature, the rural non-farm economy is a very important contributor to the economic growth of a region because of its frequently small scale, low capital requirements and seasonality, etc. Industrial clusters are widely understood as a worthwhile target for local economic development and poverty alleviation. Review of existing evidence underlines the relationship between cluster and poverty. In India, clusters of micro and small enterprises are in existence for centuries. But only in late 80's the policy and schemes for development of those clusters gathered pace. In the State of Assam, thousands of rural household enterprises are operating based on traditional skill and local resources, acting as a sustainable livelihood for the rural household. Labour is expected to be more productive within cluster which translates into higher income. Our analysis reveals that cluster initiative empowered rural artisanal segments, helped in increase in income with household status, creation of assets, social capital, skill upgradation, product development and improved backward and forward linkages, etc.

Introduction

In the last decades, Indian economy has grown in an impressive rate and demographic pressure has also slowed down. Yet, the incidence of unemployment in the last decade was more than 7 per cent. Employment in rural sector, which is associated mostly with agriculture, stagnated during 90's (Jha, 2006). Considering pressure on land, there exist limited scopes for increasing employment in agriculture.

Therefore, employment in the rural non-farm sector becomes an important option. Studies also suggested that with the increase of development, the share of non-farm income and employment in the total income of the household increases in the developing country. There is numerous evidence that rural household can have highly diverse (often multiple) source of income. The average contribution of non-farm activity in India varies between 25-30 per cent of the total household income in the rural area.

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According to Ninth Five Year Plan document, 90 per cent of employment growth during 90's was from unorganised sector which comprises non-farm activities. Evidences also show that productivity and profitability in the non-farm sector is generally higher than that of the farm sector (Fisher & Mahajan, 1997).

In India, around 41.89 million persons are engaged in rural non-agricultural establishments that constitute 46.55 per cent of the total employment including both rural and urban areas. The rural non-farm economic (RNFE) activities are often defined as activities which include all economic activities in the rural areas except agriculture, livestock, hunting and fishing (Lanjouw, & Lanjouw, 1997). All activities associated with work, whether waged or self-employed, located in rural areas but are not agriculture activities (Davis, 2006), are the non-farm activities. Economic opportunities in the non-farm sector in India are also increasing as rural non-farm employment is considered to be important to the landless small and marginal farmers which leads to the growth of real per capita income of non-agricultural output and can have a significant impact in reducing real poverty (Coppard, 2001). Traditional household industry is considered to be most significant rural non-farm manufacturing sector in-terms of size of workforce, income generation and contribute in social up-liftment in the rural areas.

The growth of RNFE activities holds important implications for the welfare of women and poor households, sometimes helps in offsetting inequities that may arise within the agricultural sector (Haggblade, Hazell, & Reardon, 2002). Historically these rural non-farm activities are found in certain

geographical area in cluster form, due to locally available raw material, labour force and proximity to key transport and market or sometimes as a result of historical accident. A number of recent studies highlighted that income levels of the households and workers engaged in rural non-farm activities are generally low and the incidence of poverty is very high. But without this sector the poor would be driven into destitution. Poor people cannot afford to remain idle and unemployed, as they have to find some work to earn their living (www.academia.edu/.../UNITED_NATIONS_ECONOMIC_AND_SOCIAL...). In recent years, a large number of rural landless/marginal farmers have forcibly adopted the home based non-farm activities which require low specialised skill and techniques. The limited employment opportunities in organised sector and disguised unemployment in agriculture flourished the non-farm employment in rural India.

Although the rural non-farm economic sector has ample economic importance in national economy, its growth is still stagnant in India. The Government of India since 1980 adopted various policies and schemes for development of the non-farm economic activities. These policies include establishment of industrial park, industrial estate, product specific industrial park such as- textiles, food processing, leather products, information technology park, specific economic zone, subsidies on export, transportation and tax relief, etc. However, all the policy initiatives by the Central as well as the State government could not yield expected result.

Over the last 2-3 decades, cluster approach has drawn substantial interest for policy makers, legislatures, academics,

economic development practitioners and development agencies. Many countries around the world have based their industry development strategies (specifically rural non-farm SME sector) on cluster models. European, Australian and American policy makers have taken up cluster development policy not because of a shift in priorities from macro to micro-economic issues but due to increased focus on the hitherto neglected aspects of local issues (Foundation for MSME Clusters, 2008). Many European countries have made impressive progress through cluster based policy to ensure higher prosperity or continued economic growth.

On the academic front there has been much interest in studying the location and the geographic concentration of economic activity. Today clusters exist in the economics of both developed as well as developing countries. Governments continuously search for new tools and policies to improve economic performance and create economic prosperity for all citizens. In this context, a more pro-active and strategic role for government in support for the cluster base economic development model has emerged. There is a growing consensus that this model can provide a foundation for sustainable economic growth and the way forward to greater prosperity (Irshad, 2009). The clustering of economic activity has important implications for development, through its effect on employment and growth (Mukim, 2011). Studies by UNIDO, UNDP, MSME, ILO, etc., identified cluster initiatives as a vehicle for pro-poor growth. Recent diagnosis studies on cluster development initiative in India have shown some positive indication in generating income and employment in rural areas.

Looking into economic performance of cluster initiative in RNFS, the present paper

attempted to access the impact of cluster development initiative towards poverty alleviation in the Chackchaka block under Barpeta district of Assam. The Khadi and Village Industry Commission, Assam under SFURTI Scheme initiated cluster intervention at Barpeta Cane and Bamboo Craft Cluster covering five villages of Chackchaka block during the year 2008.

Methodology of the Study

The present work is exploratory in nature. The study considered households' artisanal cluster as "geographically concentrated households units producing handicrafts/ handlooms products, often belong to a traditional community producing the long established products for generation and the skill of centuries ago' (MSME, 2008). On the other hand, traditional households industry means "an activity which produces marketable products, using locally available raw material and skills and indigenous technology" (Ministry of Agro and Rural Industries, 2005).

The study considered both primary and secondary sources of data. The primary data were collected from the field observation and survey of cluster's household by using a detailed semi-structured questionnaire. The questionnaires comprise household data, artisan's personal data, standard of living and welfare, benefits received from CDI, etc. In order to gather primary information, formal focus group discussion and interview were conducted with the key informant. The selection of clusters was made on the basis of the purposive sampling and by taking care of their age and economic importance. On the other hand, the selection of households for the interview was considered on the basis of random sampling. The total number of

collected questionnaires from the clusters households were 200. The sample respondents for the study comprised the head artisans or member of the cluster household. Sample size was determined through considering several factors: the degree of precision (reliability), desire for the survey estimates and the efficiency of the design. Random sampling was implemented in the selection of clusters villages and respondents, to serve the purpose of data collection.

For assessing the impact on poverty from cluster development initiative in the study area, the study followed the impact criteria proposed by Nadvi and Barrientos (2004) in their methodology which is followed as under:

Indicators or “Impact Criteria” Areas of Change: Positive Poverty Reduction Impacts

Cluster’s Stakeholders: Increasing revenues, enhanced standard of living, reducing dependence on single traders/ market, increasing formal training/skill increasing access to credit, better information and contacts, less discrimination, greater participation in cluster improved governance.

Workers: Increased wages, enhanced standard of living (e.g. housing), longer period/more stable work, more skill training/ experiences, increased employment benefits (pension, social security), improved condition of work (e.g. hours, contracts), better health and safety (e.g. chemicals, machineries), less discrimination (e.g. wages, job training), gender empowerment (e.g. more female employment freedom of association).

Households: Increased and stable income, decent housing, social network and support, equitable distribution within households (work, income, decision making).

Local Community: Improved services, improved social capital, clean and safe environment.

Results and Discussion

Barpeta falls under the lower plain zone of Assam having geographical area 2677.33 sq. km. The district has a rich history of tradition and culture. Household enterprises based on traditional skills (artisanal) are important livelihood for rural masses. Secondary sector contributes 12 per cent of the Gross Domestic Product of the district, comprises mainly households industries. The inherent non-farm economic activities include bell and brass metal, pottery, bamboo and wood craft, mask making, ivory carving, and traditional Assamese jewellery making, etc., are occupying a unique place in the district. These sectors provide livelihood opportunities to more than 5 per cent of the working population. Till date ten (10) numbers of naturally developed clusters have been identified in Barpeta district. During the year 2008, KVIC under the SFURTI scheme has taken one of such traditional handicraft clusters ‘Barpeta Cane and Bamboo Craft Cluster’ at Raipur village under Chakchaka block for its development.

Impact Analysis of Barpeta Cane and Bamboo Craft Cluster

Barpeta Cane and Bamboo Craft Cluster is situated 20 km distance from the district headquarter of Barpeta. Barpeta cane and bamboo craft cluster was developed naturally at Chakchaka block of Barpeta district of Assam. 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

and Joshihatichar-which have rich culture of decorative bamboo craftsmanship.

The cluster development initiative (CDI) under Chakchaka block brought a new dimension in the socio-economic status of the cluster's artisans. The pre-diagnostic cluster study by implementing agency indicates that there were limited income and employment opportunities in the sample cluster villages prior to cluster intervention and majority of the households were living below poverty line.

Table 1 : Households Below Poverty Line of the Sample Village

S. No.	Name of the Village	Number of Households (2001)	Households under BPL (2002)
1	Raipur	377	381
2	Jaishihati	295	303
3	Bhaluki	473	466

Source: 1. Population Census, 2001.

2. Panchayat and Rural Development, Government of Assam, 2002.

It has been observed from Table 1 that all the sample households under the surveyed villages were below poverty line (BPL).

Income and Employment Status of Cluster Households (Pre and Post-Cluster Intervention)

Table 2 : Status of Employment Pre and Post-Cluster Intervention (CI)

Activities/Occupation	Post-Intervention		Pre-Intervention
	Primary Occupation	Secondary Occupation	Primary Occupation
	Per cent	Per cent	Per cent
Not fulltime and fixed occupation	-	-	34.5
Agriculture	1.5	1.5	35.5
Business	0.5	-	3.5
Agricultural labour	-	-	5.0
Artisanal work	98.0	2.0	21.5
Total	100.0	3.5	100.0

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Prior to the cluster intervention, among the present cluster artisans, only 21.5 per cent of them were engaged in artisanal activities and 34.5 per cent were not involved in any fulltime occupation. Most of them were underemployed and engaged in construction work and agri-labour. After the intervention in the sample villages, 98 per cent of the population have taken up traditional bamboo craftsmanship as their prime occupation for their livelihood.

The field study reveals that prior to cluster intervention, 17.5 per cent of the sample household's monthly income was up to ₹ 1000 only. About 77.5 per cent of the households reported their monthly income ranging between ₹ 1000 to ₹ 1500. Only 5 per cent of the households were having other income sources like- small business, petty shops, vegetable vendors, etc., and their income was above ₹ 1500 per month. Whereas post-intervention it was found that the average monthly income of these cluster

population increased substantially from ₹ 1,169 in 2008 to ₹ 8,681 in 2012.

Gender-wise Employment in the Cluster

The gender dimension in rural income and employment has become an important issue in the recent decades with respect to the growing concerns about the deteriorating status of females in a society. Before the cluster intervention at Chakchaka block, the involvement of females in artisanal activity was very less. But it was revealed from the study that after the intervention, the involvement of the female member household in artisanal activity increased and become very important earning member of the family. Involvement of female artisans does not only generate income and employment, but also improves the status of women in the society. At present the total number of artisans participating in common facility centre (CFC) and directly involved in artisanal activity was 1382, where, 60 per cent were males and 40 per cent were female artisans.

Table 3 : Gender and Age-wise Participation in the Cluster CFC

Age Group	Male (in per cent)	Female (in per cent)
Below-30	20.5	20
30-60	78.5	79
Above-60	1	1
Total	100	100

The above Table shows that maximum number of artisans involved in the cluster belong to the age group of 30-60 years.

Status of Artisanal Households (Pre and Post-Cluster Intervention)

In India poverty has a multi-dimensional aspect, where poor people are lacking in terms of household assets, income

and employment opportunities, proper housing and sanitation, etc. Although the assets creation is not the primary objective of CDI, the initiative indirectly influenced in accruing household assets due to generation of surplus income for artisanal households. In recent years, the household status of the cluster artisans improved with the increasing income level (Table 4).

Table 4 : Household Assets Possessed by the Barpeta Cane and Bamboo Craft Cluster Artisans

	Assets	Post-Intervention	Prior to Intervention
		Percentage	Percentage
Lives in Own/Rented House	Rented house	1.5	nil
	Own house	98.5	100.0
Status of House	Pucca house	12.5	2.0
	Tin roof but kutcha	87.5	12.0
	Kutcha house	nil	85.0
Electricity available		85.0	24.0
Pucca Latrine		10.0	nil
Kutcha latrine		90.0	100.0
Source of drinking water	Ringwell	7.0	3.0
	Tubewell	93.0	76.0
	Not having own water facilities		21.0
Fuel for cooking	Firewood	13.0	97.0
	LPG	87.0	3.0
Television/CD players		26.0	4.0
Cycle		84.0	21.0
Motor cycle		7.5	nil
Refrigerator		nil	nil
Radio		13.0	18.0
Mobile		86.0	nil
Fan		85.0	nil

The study revealed that prior to CDI, only 2 per cent in the sample households were having pucca houses and 85 per cent were residing in kutcha house and the entire sample household used open space or kutcha latrine. They used to access drinking water from tubewell (76 per cent) and 21 per cent of them did not have any permanent source of drinking water. It was also found that 97 per cent of cluster artisans used firewood for cooking and only 3 per cent

were having LPG connection. There were only few assets, namely, bicycle and radio possessed by the household. These findings of the household status prior to cluster development initiative reflect the standard of living of the cluster artisans.

Post-cluster intervention household status of the artisans in the cluster improved as 12 per cent of the sample households are now living in pucca house, 75 per cent living

in tin-roof kutcha house, 10 per cent households now having permanent sanitation facilities, 85 per cent of sample houses were electrified and 87 per cent of them used LPG for their cooking. In the post-intervention period, 26 per cent of the

artisanal households were possessing television, 84 per cent of them were having bicycle, 85 per cent were having fan and 86 per cent of households were having mobile phone. Households possessing motor bike were 7 per cent only.

Figure1 : Number of Working Days of Sample Households in a Year

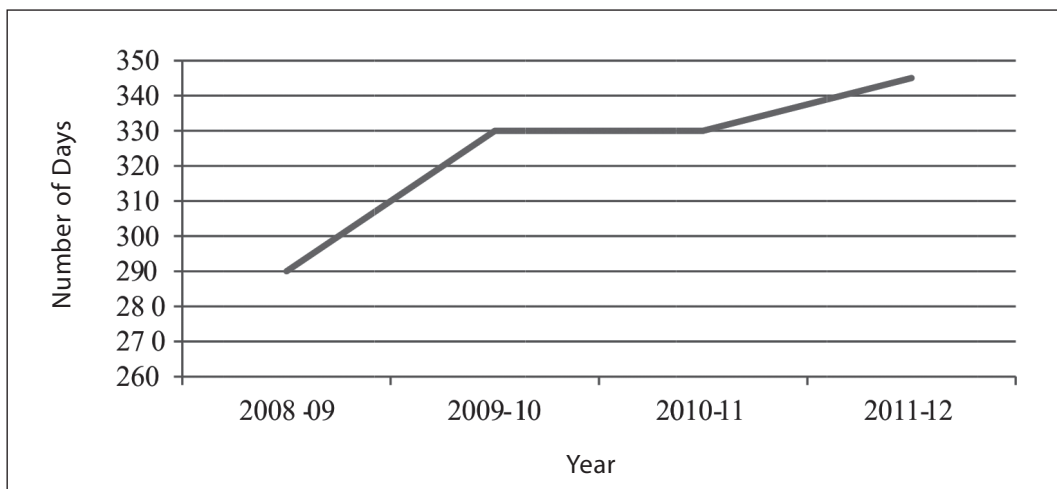


Figure 1 shows that the involvement of household in artisanal work in terms of number of days in a year increased

substantially and reached to 345 days in the year 2011-12.

Figure 2 : Number of Self-Help Groups Formed

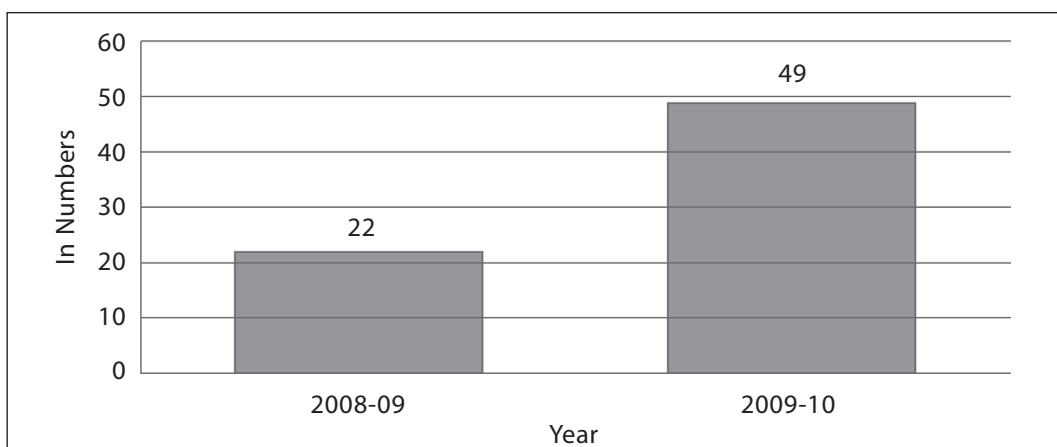
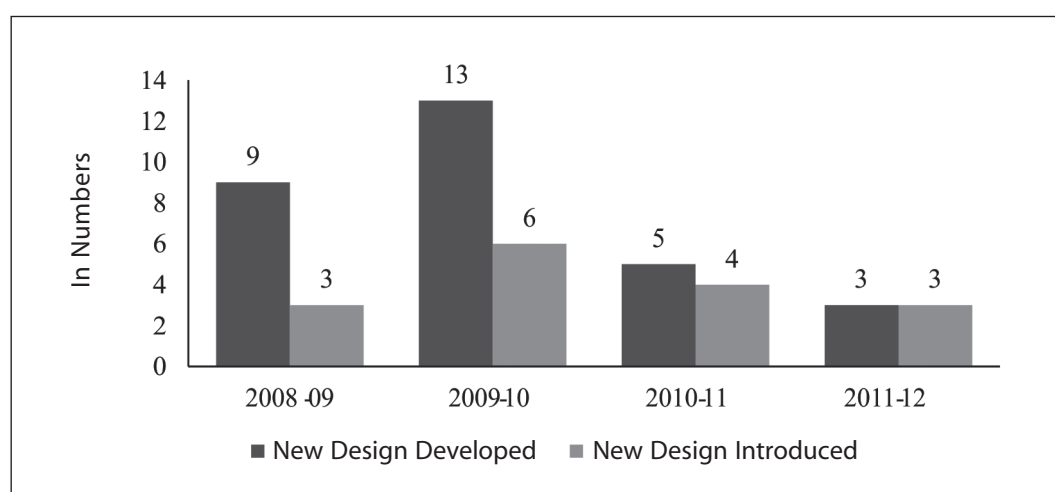


Figure 2 shows that during the year 2008-09 in Barpeta Cane and Bamboo Craft Cluster, 22 Self-Help Groups were formed by the Cluster Implementing Agency (CIA). This increased to 49 during the year 2009-10. The motive behind the establishment of SHG among the cluster artisans was to bring

coordination among the cluster artisanal households and establish forward and backward linkages with external agencies like financial institutions, development agencies, government agencies and departments, etc.

Figure 3 : New Design Developed and Introduced in the Cluster



The above figure shows that after the CDI was undertaken at Barpeta Cane and Bamboo Craft Cluster, every year products with new designs were developed.

Benefits Received from Cluster Development Agency (CDA)

The cluster intervention at Barpeta Cane and Bamboo Craft Cluster facilitated

skill development training to about 35.5 per cent of the artisans, exposure visit to 8 per cent, 30 per cent of the artisans received financial assistance and 23 per cent benefited under medical help. Cluster implementing agency also facilitated insurance coverage to 16 per cent of artisans, credit card to 13 per cent and distributed tool kits among 44 per cent of the artisans (Table 5).

Table 5 : Facilities/Benefits Received from Cluster Development Agency (CDA)

S. No.	Benefits	Numbers	Per cent
1	Received Training Facilities	71	35.5
2	Exposure Visit	16	8.0

(Contd...)

Table 5 (Contd...)

S. No.	Benefits	Numbers	Per cent
3	Received Financial Assistance Post-Cluster Intervention	60	30.0
4	Received Medical Facilities from Cluster Development Organisation	46	23.0
5	Insurance	32	16.0
6	Received Credit Card	26	13.0
7	Bank Account	122	61.0
8	Received Tool Kits from CDO/CDA	88	44.0

Social Sector Development

Social sector development is an important dimension of pro-poor cluster development initiative in India. The cluster initiative at Barpeta Cane and Bamboo Craft Cluster brought new transforms in terms of social sector up-liftment. The formation of SHGs brought better coordination among the cluster artisans and establishing forward and backward linkages with financial and educational institutions, development agencies, government departments, suppliers and marketers, etc. The collaboration of cluster implementing agency with IIT Guwahati assisted the artisans in product diversification by developing new improved design and revival of traditional designs. Through design and training inputs, cluster artisans have been assisted to produce high quality and advance marketable products which added a completely new product range in the cluster for different market segments. Cluster implementing agency have taken up initiative in marketing the cluster products by setting up different showrooms and participation in the national and international trade fair and exhibition.

Prior to cluster intervention, artisans under study were completely dependent on traders, contractors and middleman for both personal as well as 'enterprise' related financial requirements. Artisan's linkages with financial institutions and banks reduced the dependency rate on moneylenders after the CDI. Formation of SHGs in cluster villages initiated some economic activities like dairy farm, poultry farming, micro-finance, etc., which generate extra income to the households. Participation of women into SHG is more than male counterpart.

Conclusion

The present study on Barpeta Cane and Bamboo Craft Cluster shows that significant improvements occurred in rural livelihood in terms of employment and income generation in the study area. The cluster intervention by KVIC strengthened the artisanal sections by giving emphasis on traditional skills based household industries, empowering women, increasing social capital - trust, capacity building, networks, backward and forward linkages to the cluster households.

The rural non-farm economic (RNFE) activities hold special importance for women

in rural areas of Assam. Women are mostly participating in part-time artisanal and weaving activities in their household unit. In the study area, female members have become a key actor in the economic transition. The participation of female worker has considerably increased through the advancement of vocational training, formation of cooperative societies and SHGs. Women who were earlier engaged in household activity now have become important earning members of the family. It was found that more than 40 per cent of the females are actively engaged in artisanal work in Barpeta Cane and Bamboo Craft Cluster. The artisanal sub-sector exhibits almost equal ratio of female and male worker. Women are culturally less mobile therefore, artisanal activity as a household unit became an advantage to them as they are employed closer to their living abodes.

Recent studies observed that formal capital plays a vital role in the growth of RNF sector. Poor access to formal credit is a major constraint to the development on RNF sector. Successful implementation of CDI at Chakchaka block of Barpeta district significantly minimised the financial constraints for the cluster artisans. Linkages with financial institutions and Banks (Assam Gramin Vikash) brought some amount of financial stability to the cluster's artisan.

Existing literature shows that lack of education and skills development is the key barrier for the rural poor especially women to acquire gainful employment. CDI at Barpeta Cane and Bamboo Craft Cluster facilitated training for skill development to the artisans which eventually increased the work efficiency. Linkages with the technical

institutions (Indian Institution of Technology, Guwahati) helped the cluster artisans in the development of new product and reviving the existing traditional items. Product diversification resulted in better market for the cluster product. Facilities provided through CDI inspired the households under study area to take up artisanal activity as a primary source of occupation.

In the case study it was observed that monthly household income increased substantially in post-cluster intervention in the study area. With increased income, artisans are now able to address their basic needs and social infrastructure in a better way. Besides, social capital is another important variable for empowerment approaches that potentially plays an important role in poverty reduction. Poor often lack the ability to bridge and link social capital. They are not often connected to other groups and civil society or the State. They can be only empowered when groups connect with each other, across communities, form networks or associations and begin to influence local decision making as well as gain collective bargaining power with suppliers of raw materials, buyers, marketers and financiers, etc. The implementation of CDI eventually empowered the rural poor artisans through increasing their choice of suppliers and buyers of the artisans under study. Their collective activity helped to access information, inclusion, participation and accountability. Therefore, by taking evidence from worldwide experience and present case study, it can be said that if rural non-farm activities are given a formal structure in the rural set-up, they can be a potential source of income and employment generation and act as an instrument for poverty alleviation.

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