



THE BELL METAL PRODUCTION OF ASSAM: PROBLEMS AND CHALLENGES

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ABSTRACT :

Bell metal has been receiving a greater importance in Assamese culture and traditions since ages. But the artisans (kanhar) engaged in the production and marketing of bell metal products are facing numerous challenges. Assam has a unique identity in the field of cottage industries. The bell industry is one of them. Metal bell tools are part and parcel of Assamese society. Through this research paper the Researcher focuses on the challenges faced by the bell metal artisans and tries to provide certain measures to overcome such challenges. The study is done with the help of primary and secondary data. The paper is a result of a field study on the brass and bell metal industries of Assam, particularly Sarthebari area. Paper contains an analytical study of this indigenous industry from different points of view. The method in the study was field investigation and the data are primary as well secondary. The paper presents an inclusive study and findings about the raw materials, workers, owners, marketing strategies and their contribution in the socio-economic condition of the society.

Keywords: *Bell metal, Raw Materials, Economic Condition, Problem of Market.*

I. Introduction:

Bell metal is a mixture of Copper and Tin, usually approximately 4:1 ratio of Copper to Tin i.e 78% Copper and 22% Tin. It is a hard alloy used for making bells, utensils, instruments and various decorative items such as cymbals, water pot, *sarai* (a platter or tray mounted on a base), dish, bowls, figures of deities, swords, draggers, musical instruments etc. An Assamese

family is incomplete without bell metal. Every auspicious occasion right from marriage to worship, bell metal utensils are widely used. Bell metal industry is the second largest handicraft of Assam after Sericulture. Sarthebari of Assam is well known for this ancient folk craft. Most of the families of this village have been practicing this art since many years. The



hard alloy of bell metal forms a beautiful shape in the efficient hands of these skilled craftsmen. But the artisans or craftsmen engaged in this industry have been facing uncountable problems and challenges since ages. A detail analysis of problems and challenges faced by artisans is made in this paper.

The literature review in respect of present research study are- Deka(1986) in his article “Asomor Samaj Aru Sabhyataloi kanh Silpir Arihana (Contribution of bell metal artisans towards Assamese culture and traditions)”, published in the souvenir of Golden Jubilee Celebration of Assam Co-operative Bell metal Utensils Manufacturing Society ltd has mentioned about the problems faced by craftsmen in producing bell metal ware and contribution made by them for the development of bell metal industry. Baishya(1989) in his book “Small and Cottage industries of Assam” has mentioned about the income of bell metal artisans. Deka (1995) in his book mentioned about the problems of bell metal industry and its future prospect of development. Deka (2006) has mentioned in details about the bell metal craft. Goswami (2009) also mentioned about the various problems faced by bell metal industry and urged upon the issue of ‘trademark’ by the

concerned authority for Sarthebari Bell Metal products. Talukder (2011) has mentioned about the problems faced by bell metal workers in the process of production and marketing of bell metal products along with future prospect of bell metal. Roy (2014) has stated in details about the bell metal industry regarding increasing prices of raw materials, problems faced by artisans, financial assistance provided by various institutions etc. Patowary (2014) had stated thoroughly bell metal cluster of Sarthebari. He wrote bell metal craft and Sarthebari village are the two sides of one coin.

Brass metal is one alloy of Copper and Zinc mixed of ratio of 70:30 I.C 70 percent Copper and 30percent Zinc. Zinc is included in the class of traditional metal. They are hard, shiny, strong and easy to shape can easily be bended to give shape to the articles. Brass is looking yellow and similar to gold also. In this industry different products are made like toll (cooking utensil), kharahi (container with dense but small haies on its body to pass water), karia (container used to draw milk), banda (water pot with a pipe, used by muslims), gilasa (glass of brass metal), tray (flat receptacle utensils). The metalworkers of Assam usually follow method in



manufacturing products. The more popular is the hammering method, popularly called heating and beating method. This method entailed beating out the lamp or plates into design shapes with the help of hammer. After heating in furnace, the second method entailed into specific method (Goswami 2009). Supply of raw materials to the production units of brass metal also revealed the overall domination of local traders and mahajans. However, hawkers and buyers also contribute with a very little share and raw materials supply. The study reveals that the supply of raw materials has directly controlled by mahajans and local trades, is more two third of the bell metal production units. The production units of bell metal industries have also faced some problems in the procurement of raw materials. The responses of the artisans in this regard have studies to explore the dimension of the problem. The study reveals that irregular and insufficient supply of raw materials, shortage of working capital to buy raw materials, low quality of raw materials and control of traders are the problems face by the owner and artisans of brass metal industry. Lack of sufficient supply of raw materials is one the main problem faced by the industry. Along with that collecting of raw material may

sometime lengthy process. The management system of brass metal industry is different from bell metal industries in many ways. In production units of Sarthebari cluster, the smithy owner from their capital procures raw materials and the partners or the workers are engaging in the basis of daily or monthly wages system.

II. Objectives of the study:

- a) To highlight the challenges faced by bell metal artisans
- b) To provide some measures to overcome such challenges
- c) To know about the initiative taken by the government in improving living and working conditions of artisans.

III. Research Methodology:

The population of the study constitutes all the people of Sarthebari engaged in bell metal production. There are 280 production units in Sarthebari and around 5-7 artisans are engaged in each unit. A sample of 28 bell metal production units i.e about 150 craftsmen are selected for study. The Researcher used non-probability (convenient) sampling technique to carry on the research study. Primary data were collected from field survey in the bell metal production units, conducting direct



personal interview with the craftsmen at source where they are asked many questions with the help of a schedule to collect various information. The researcher also collects some information from the officials of Assam Co-operative Bell Metal Utensils Manufacturing society Ltd by conducting interview. Secondary data are collected from various books, journals, articles, newspapers, websites etc.

IV. Result and Discussion:

1] Contribution to state industrial sector:

Small industries are playing a very significant role to its state economy. Development of a society based on its industries which can fulfill of its workers' basic needs by providing employment in these industries. The socio-economic status of people determines by their income. According to census report 2011, 69 percent people of Assam are engaging with agriculture and the economy of Assam depends on agricultural activities. The small industries of Assam play an important role to its economy. The brass metal industries of village area of Assam can provide employment to most illiterate people of that area, the industries not required any educational qualification therefore the

uneducated people get an opportunity to do work in these industries. Village and cottage industries have great importance in an agrarian economy like Assam. Rural agricultural families of the state are getting subsidiary occupation from these industries. As these industries require minimum working capital, simple tools and implements, rural families can easily run these industries. The village and cottage industries include handloom weaving, carpentry, sericulture, rope making, bell and brass metal, cane and bamboo work, gold and silver work etc. The workers of brass metal industries have been working with very old and traditional tools given by their ancestors. The workers of these industries are basically involved in different stages like process of production, supplying raw materials, collection and distribution of products. The industrial units of this sector are quick yielding with relatively short gestation period, which is very essential in a developing economy characterized with a high inflationary tendency. There is a need for the planners and the policy makers to put emphasis on these industries as a tool for economic growth of the state.

2] Problem of the production:



The industries of brass and bell metal suffering from various problems such as supply of raw materials, financial, market, cost and so on. Irregularity of raw metal supply and the problem of finance are the major problem of brass and bell metal industries. Due to lack of good quality of raw materials all the brass metal industries have to encounter with the problem of insufficient supply. Therefore, the workers are using raw material available in the local market which may not be good quality. The owners of the Garshals (place where work run) are facing difficulty for irregular and insufficient supply of good quality raw materials and energy. Due to this reason workers face problem of having no work for some days which rise temporary unemployment in that particular place. In the changing time hike price of the material also create a big problem for the owner. Finance is another major problem of production units of the brass metal industry. Lack of working capital is a common problem of production units faced by the artisans while producing articles except a very few numbers of unit those who buy raw materials from own capital. The artisans of these industries are financially weak and they depend on village money lenders. Marketing is another major aspect

to be considered for any production system. The workers of the production units are not yet designed any strategy to understand the nature of demand of their products. Therefore, they are producing articles according to their idea without considering the market potentially and changing priority of the alienate. For this reason, the traditional products gradually failed to cater the demand of the potential market both inside and outside the state. Lack of trained or skilled manpower equipped with modern production known how is standing as obstacle in the process of production of brass metal industries. Therefore, artisans still follow traditional method of production. The artisans failed to maintain the standard for the want of proper tools and equipment and even some of them are not fit for applying advance method of production for their lower level of literacy. Again, the promotional agencies have not taken from different angles have failed to induce momentum to modernize both the sector of state to compete with the machine-made products coming from outside of state.

3] Buyers view on brass metal industry:

Contemporary market and the products are depending on buyers' need and want, so a try has been made to understand



the perception of buyers towards brass metal production available in the market. Generally, customers prefer less costly product made of brass metal. Therefore, durability quality and beauty of products and their cultural association health and hygienic issues and house hold usability found to be the significant consideration in buying concern about house hold use, decorative of the products. Other reason such love to indigenous products price increase of scrape offer prizes to others decorative uses and purchase and compulsion are not very effective reason in the process of purchasing. Through love for indigenous products may be a strong reason belied buying brass metal products. Customers concern and the choice of different items of bell and brass metal products they have to choose kahi, bati, chariya, sarai, lota and kalah have able to score of the choice from 100 to around 60 percent of buyers as these are regarded as the common house hold items used in Assamese society. All the market place of the state is linked with sales network of brass metal products. Such sales centers are located at towns and cities. Local traders have identified as the main source of purchase with around 89 percent customers response followed by the hawkers with a

score of around 67 percent. Apart from this, the customers close to production centre have taken chance to buy products directly from garhal. Mahajans (owner) have direct relation with the retail sellers. They are supplying products to retail sellers within our state and some of them have business relation with the local traders of outside and abroad. Trade fair or exhibition is another event for customers to purchase brass metal products and sometimes such fair is organized in collaboration of government's department.

CHALLENGES FACED BY BELL METAL ARTISANS:

The challenges faced by bell metal craftsmen are given below-

1. The increasing price of bell metal raw materials:

The bell metal raw materials are generally imported from Kolkata and and even countries like Bangladesh and Pakistan and stored in Fancy Bazar of Guwahati city. The craftsmen have to pay more prices to purchase these raw materials as the market of bell metal raw material is under the control of capitalist businessmen. Government has no control over it. As a result the capitalist businessmen often increase the prices of these materials by showing artificial scarcity.



2. Lack of Financial support:

Bell metal products can be produced by using two methods. One is from broken bell metal(used as bell metal raw material) and the other is by mixing copper and tin in appropriate proportion. But the second method is very costlier. The bell metal artisans do not have sufficient fund to adopt the second method of production. 3. Fuel scarcity: Charcoal is used as fuel in producing bell metal products. But deforestation causes scarcity of charcoals. 4. Traditional tools and techniques: Artisans are still using old tools and techniques in producing bell metal ware because of non availability of new methods of production, modern tools and techniques and sophisticated machines, which consumes more time as well as energy. Because of these the design of the finish products are becoming outdated now. 5. Competition: The craftsmen have to face high degree of competition with the products which are very much cheaper as compared to bell metal products. Now- a- days the market is flooded with those lookalike products with attractive design imported from other states. Therefore consumers interest towards costly bell metal products are reducing. On the other hand illiterate and poor artisans are completely unaware about the marketing

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6. Unhygienic working environment:

The working environment of the bell metal craftsmen is very pathetic. Because of this unhygienic living and working condition the craftsmen's health is continuously deteriorating. They easily get attacked by various diseases.

7. Insufficient capital:

The craftsmen always face the problem of insufficient capital to run the business. Though bell metal is a tradition of Assam still the government showing less interest for the development of this craft. When the researcher put this question to the secretary of Assam Co-operative Bell metal Utensils Manufacturing society Ltd, he told that once in 2005 the Governor of Assam provided rupees 3 lakhs to the industry. But it was not enough for the proper development of the industry.

8. Problems of Production:

The product of brass metal industries is part of life of Assamese people and their culture. Every family tries to maintain those articles as marks of their cultural identity. They are mostly used in religious rituals and marriage ceremonies. As a traditional form of craft, it still

involves low level of technology in the process of production; it depends on peoples' hand work not in any advanced technology. The artisans of these industries work hard to run the tradition as well as to sustain their livelihood in the changing socio-economic context of the society. The low literacy level, non-availability of sufficient agricultural land, lack of working capital among the artisans also some other negative factors influencing the growth and development of the state. Due to lack of proper marketing strategy, export of brass metal articles to other states of our country is almost absent. Only some amounts of products are used to be exported to Nepal, Bhutan, China and Myanmar. On the other hand, comparatively high finished and low-priced hand and machine-made bell and brass articles from Moradbad, Kolkata, Punjab, Haryana etc. are gradually capturing market.

V. Major Findings of the Study:

Cottage industrial sector is more important for its employment potentiality than medium and large industrial sector. They generate more direct jobs against per unit of investment than other sectors. Study of the cottage form of bell and brass metal



industries of Assam unfolded some new findings of special importance:

1. Sarthebari are the major centers of bell metal industries in Assam. The artisans engaged in bell metal industry able to convey glory to sarthebari area for their finest quality of products.
2. In pre-colonial period, the sole control of the production process was in the hand of kanhars. However, the role of kanhar was subsequently degraded during the British rule as well as post-independent period as traders' community began to play the major role in the bell and brass metal trade.
3. The supply of raw materials to the production units of bell and brass metals showed the domination of local traders and mahajans.
4. Level of education among the artisans found to be low. Most of the brass and bell metal workers are educated below the High School level.
5. The heating and beating is the more popular method of producing brass metal articles. Cutting method is used to product some item like lota, glass etc.
6. The profit of a particular garhsal is solely depends on the professional attitude of the kanhar and will power and manual labour of the bhaigas.

7. A number of emerging problems have been noticed in the contemporary period.

VI. Conclusion and Some Recommendations:

Over the years the bell and brass metal industries are suffering from various internal, external and operational problems. In the raw materials and energy fronts, insufficient and irregular supply of it, low quality of raw materials, control of traders over supply of raw materials and shortage of finance are found to be the basic problems of both the industries concern. Apart from it, fluctuating price of raw materials and energy, time consuming material collect process and poor transportation facilities are some other problems as cited by stakeholders of the bell and brass metal industries. The tools and implements used by the artisans engaged in bell and brass metal industries are traditional. The workers of bell and brass metal industries are not belonging to a special class or community. Rather, they are occupational class. Anybody, who are willing to do he may engage. Contribution of these industries to the industrial sector of the state cannot be certainly determined as it is yet operating as an unorganized sector



and proper account keeping is not a part of practice. The operational problems faced by the industries are found to be associated with insufficient supply of good quality raw materials and energy. This is the serious problem faced by these industries for smooth conduct of their respective product units. Working environment of garhsal is also found to be unhygienic and congestive. It is found that, they are not conscious about the necessary precaution measures to be taken in production process. The production units who are in a position to buy raw materials from their own sources have able to develop direct connection with the management committees are found to have achieved little experience of joining trade fair, exhibition, sobha mahotsav etc. for which the greater exposure of bell and brass metal products is not yet possible, specially outside the state. The bell metal craft is internationally famed and popular. Each year lots of products are exported to countries like Bhutan, Nepal, Myanmar, Germany, Italy, Japan etc. Therefore this craft of Sarthebari is having a high potentiality of growth and development. It is impossible without the help of craftsmen or bell metal artisans. The all round development of artisans are necessary for the long term survival of bell metal cluster.

The government should first provide some basic infrastructural facilities like transportation and communication, electricity, medical facilities, schools and colleges, establishing rural craft museums etc. If the government provides financial incentives to artisans to purchase tin, copper zinc etc. required to produce new bell metal then the cost of bell metal finish products will decrease. As a result the market demand will increase automatically. Apart from these various seminars and workshops should be organized to create the awareness among people towards bell metal products and by using print and electronic media publicity of the craft should be made. GI (Geographical Indication Registration) and trade mark for bell metal products of Sarthebari are of utmost necessary to preserve the authenticity of this craft. The government should provide modern machineries to the artisans which will help them to produce bell metal finished products by applying less effort and time. The bell metal utensils have the capacity to kill germs and improve digestion and preserves food for long time. The people also consider it as a sign of aristocracy. So proper initiative should be taken for long term survival of this heritage folk craft of



Assam by making all round development of the craftsmen engaged in this field.

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