

## CHAPTER III

### 3. Materials and Methods

#### 3.1. Statement of the Problem

The bell metal industry in India employs a large number of artisans and workers and produce variety of goods ranging from low value household goods to high value ornamental products. The complete industry may be very unorganized where the artisans work from their dwelling. The working situation could be very poor, lengthy working hours and the earning is meager. The artisans are exposed to the exploitation of the intermediary in absence of a good established marketing link and little or no or no access to credit from any financial institution or financial institutions. Most of the artisans being both uneducated or semi literate and not mindful of the distinct development schemes of the government and in addition concerning the today's instruments and technological up gradation productivity growth and fee discount. The artisans have no exposure to the market situation and demand sample that's everyday in other materials of the nation. They do not have powerful and active association to symbolize the pitiable condition to the authorities. They're additionally disadvantaged of credit services with the aid of more than a few fiscal institutions which is affecting the construction process adversely. The humans of Assam are emotionally and culturally connected with the utensils of the bell metal enterprise .However in contemporary years enterprise has faced some critical problems threatening its existence .The present condition of the industry may be very imperative. Lots of the artisans are confronted to go away the industry. The socio financial conditions of the artisans are deplorable.

#### 3.2. Objectives:-

- 1) To study the socio economic conditions of the artisans engaged in the bell metal units of Barpeta district.
- 2) To study the Need- gap analysis of the industry

- 3) To study the level of performance of small and medium enterprise engaged in manufacturing of bell metal products.
- 4) To prepare a innovative marketing strategy for Bell Metal industry in Assam.

### **3.3.Research Methodology:**

The bell metal industry in Sarthebari runs on a small scale. There are about 280 items constitute the entire industry: most of them are active at the time of discipline survey. Most of the units usually are not registered with the Directorate of Industries, nor Govt. Of Assam, The information was gathered by means of questionnaire and on the spot individual interview with artisans, government officers, officers of Assam Co- operative Bell metal Utensils Manufacturing Society. Field survey as good as empirical studies were used for accumulating more than a few types of data and expertise. The two sources of information accrued are i)Secondary ii) fundamental

The secondary information had been gathered from Directorate of Industries, Directorate of Assam Small Scale development enterprise, Assam Co- operative Bell metal Utensils Manufacturing Society, and District Industrial middle, Barpeta . Principal books, journals, souvenirs, papers and quite a lot of reports from extraordinary corporations, like khadi and village Industries Board, Assam khadi and village Industries fee, Hand loom and Handicraft Industries.

The primary data have been accumulated from direct discipline statement and survey of bell metal units. For this rationale questionnaire have been prepared, The questionnaire comprise query on Socio-financial, annual sales, wage, recreation, uncooked material, tools, business, capital, advertising approach, construction and approach and so on. The questionnaire constituted of private knowledge, recruitment of labour, dimension of household, typical of dwelling, welfare and exchange unionism and many others. In the 280 items the complete quantity of artisans engaged is 1720 individuals.

The Sample Size Calculator is presented as a public service of Creative Research Systems survey software. One can use it to determine how many people you need to interview in order to get results that reflect the target population as precisely as needed. It is used to find the level of precision in an existing sample. Before using the sample size calculator, there are two terms that one need to know. These are: i) confidence interval and ii) confidence level. The confidence interval (also called margin of error) is the plus-or-minus figure usually reported in newspaper or television opinion poll results. For example, if one use a confidence interval of 4 and 47% percent of the sample and the sample picks an answer that one can be "sure" that if the question had been asked to the entire relevant population between 43% (47-4) and 51% (47+4) would have picked that answer. The confidence level tells you how sure one can be. It is expressed as a percentage and represents how often the true percentage of the population who would pick an answer lies within the confidence interval. The 95% confidence level means one can be 95% certain. Most researchers use the 95% confidence level. To determine the sample size of the population of 1720 artisan in bell metal industry. I have taken the confidence level of 95% and confidence interval of 5% and inserting these figures in the Sample Size Calculator ,I have got 314 as the sample size, and to make it a whole figure I have rounded it to 320 samples.

According to Director of Industries, MSME there are total eight different clusters in Assam which are taken for development since 2003, out of which two clusters belong to Bell Metal ie.i) Brass and Bell Metal Industry Cluster, Hajo located in Kamrup ii) Bell Metal Industry Cluster located in Sarthebari, Barpata, Assam. Among these clusters there are 276 registered units and 4 non registered units where total of 1720 artisans work I have surveyed the registered units and found that there is no government help that are provided to the registered units and non registered units are also far from receiving any government help, so there is not much of difference between registered and nonregistered units. . The Assam Co- operative Bell Metal Utensils Manufacturing Society ( Asom Samabai Kahar Sangha), Assam Samobai Kahar Silpi Santha, District Industrial center, Barpeta District were also visited for essential data, during the course of investigation the Bell metal artisans heisted in giving the information regarding the various aspects of their units. The researcher however got over the difficulties by personal persuasion and assurance of confidentiality and for academic use only. The collection of the detail information from the bell metal units posed a more serious problem since most of the

enterprise were run by proprietary or partnership concern and hence they have no obligation to disclose on a regular basis their financial statements. The data supplied by the artisan were generally based on the approximation of their memories. They have neither maintained proper books of accounts nor they have prepared their profit and loss statements to evaluate their operational efficiency.

The information collected from the secondary and foremost supply are calculated, analyzed and interpreted utilising more than a few statistical and cartographic techniques. Bar diagram, pie diagram, Co-relation coefficient (Pearson's) approach additionally used to exhibit the relationship of deliver of raw substances and creation of completed products of the models in the study discipline. Cartographic manner was once used to learn the socio-economic and ordinary of living of the employees.

Survey was carried out dealing with bell metal artisans in Sarthebari town and its adjoining villages. During the time of survey of family, the bell metal industry had been on the whole in Sarthebari town committee discipline and other villages namely Namsala, Karakuchi, Gomura, and Lachima. The household survey used to be done in the month of November, the institution regarding advertising and marketing, provide and store of bell steel merchandise were also considered. For the rationale of the evaluation of the data obtained, annual sales measurement classification of those 280 units had been executed as a way to compare the comparative efficiency of the small items (annual revenue less than 15,000/-) medium items (annual income much less 15,000/- to 20,000/-) and large units (annual income above 20,000/-). The sets of questionnaire have been divided for the study and the knowledge have been gathered for from the Director of Industries, Managing Director of Assam Small Scale Industries, The Assam Co-operative Bell metal Utensils Manufacturing Society Ltd., Sarthebari, together with the branches of Sarthebari Natun Bazar and Director of Industries, Barpeta. Questionnaire on the level of artisans used to be prepared and collected knowledge from the units. With the aid of field survey quite a lot of information have been collected on the related crafts by way of individual interview with the artisans. For preparation of this study of various reports and studied carried out by using a number of companies, agencies and scholars on this fields. In addition, at the time of field survey learned and skilled persons associated with this craft and their views had been taken even as preparing the reports and making suggestions.

### 3.4 Hypothesis:

- 1) There is no significant difference in the economic condition of the artisans before and after the cluster formation in bell metal industry.
- 2) Bell metal industry is the main occupation and the livelihood of the artisans depends on the industry.
- 3) Slow development of the Bell metal industry in the Sarthebari area is due to lack of government Initiative among the artisans.

Table 3.1.

Socio -economic characteristics of artisans

| Sl. No. | Attributes               | Category           | Frequency | Percentage |
|---------|--------------------------|--------------------|-----------|------------|
| 1       | Age                      | Below 35 yrs       | 78        | 24         |
|         |                          | 35-50yrs           | 202       | 63         |
|         |                          | Above 50 yrs       | 40        | 13         |
| 2       | Gender                   | Male               | 285       | 89         |
|         |                          | Female             | 35        | 11         |
| 3       | Marital Status           | Married            | 268       | 84         |
|         |                          | Unmarried          | 52        | 16         |
| 4       | Education                | Illeterate         | 73        | 23         |
|         |                          | Primary            | 120       | 38         |
|         |                          | Middle High school | 90        | 28         |
|         |                          | High school        | 37        | 12         |
| 5       | Size of the Family       | 5 to 9             | 80        | 25         |
|         |                          | 10 to 14           | 126       | 39         |
|         |                          | 15 to 20           | 114       | 36         |
| 6       | Experience in this field | Below 5yrs         | 72        | 23         |
|         |                          | 6 to 10            | 87        | 27         |
|         |                          | 11 to 15 yrs       | 43        | 13         |
|         |                          | 16 yrs above       | 118       | 37         |
| 7       | Sources of Finance       | Personal Savings   | 276       | 86         |
|         |                          | Loans from Banks   | 8         | 25         |
|         |                          | Other sorces       | 36        | 11         |

|    |                 |             |     |    |
|----|-----------------|-------------|-----|----|
| 8  | Annual Income   | 5k to 10k   | 49  | 15 |
|    |                 | 11k to 15k  | 158 | 49 |
|    |                 | 16k to 20k  | 71  | 22 |
|    |                 | 20k to 25 k | 42  | 13 |
| 9  | Mode of Service | Full time   | 192 | 60 |
|    |                 | Half time   | 78  | 24 |
|    |                 | Some times  | 50  | 16 |
| 10 | Other Sector    | Agriculture | 109 | 34 |
|    |                 | Live Stock  | 83  | 26 |
|    |                 | Fishery     | 47  | 15 |
|    |                 | Service     | 81  | 25 |

Source: by the researcher through field work,2013.

Table 3.2.

Problems faced by the artisans in the production process ( weighted ranking method)

| Sl. No. | Factors           | 5             | 4      | 3       | 2         | 1                | Score | Rank |
|---------|-------------------|---------------|--------|---------|-----------|------------------|-------|------|
|         |                   | Highly Agreed | Agreed | Neutral | Disagreed | Highly Disagreed |       |      |
| 1       | Lack of Capital   | 123           | 92     | 67      | 38        | 0                | 1260  | 2    |
|         |                   | 615           | 368    | 201     | 76        | 0                |       |      |
| 2       | Limited Market    | 108           | 62     | 58      | 48        | 44               | 1102  | 3    |
|         |                   | 540           | 248    | 174     | 96        | 44               |       |      |
| 3       | Raw Materials     | 125           | 90     | 73      | 32        | 0                | 1268  | 1    |
|         |                   | 625           | 360    | 219     | 64        | 0                |       |      |
| 4       | Power             | 99            | 71     | 63      | 45        | 42               | 1100  | 5    |
|         |                   | 495           | 284    | 189     | 90        | 42               |       |      |
| 5       | Training Facility | 87            | 84     | 67      | 47        | 35               | 1101  | 4    |
|         |                   | 435           | 336    | 201     | 94        | 35               |       |      |

Source: by the researcher through field work,2013.

Table 3.3.

Mode of support provided by government organization

| Sl. No. | Factors | 5              | 4                 | 3                   | 2                 | 1            | Score | Rank |
|---------|---------|----------------|-------------------|---------------------|-------------------|--------------|-------|------|
|         |         | Not supportive | Partly supportive | Actually supportive | Rarely supportive | Full support |       |      |
| 1       | DIC     | 109            | 72                | 44                  | 52                | 43           | 1112  | 4    |
|         |         | 545            | 288               | 132                 | 104               | 43           |       |      |
| 2       | MSME    | 98             | 73                | 57                  | 50                | 42           | 1095  | 5    |
|         |         | 490            | 292               | 171                 | 100               | 42           |       |      |
| 3       | NEDFI   | 111            | 70                | 47                  | 58                | 34           | 1126  | 3    |
|         |         | 555            | 280               | 141                 | 116               | 34           |       |      |
| 4       | IIT     | 125            | 72                | 27                  | 91                | 5            | 1181  | 2    |
|         |         | 625            | 288               | 81                  | 182               | 5            |       |      |
| 5       | SBI     | 129            | 84                | 26                  | 73                | 8            | 1213  | 1    |
|         |         | 645            | 336               | 78                  | 146               | 8            |       |      |

Source: by the researcher through field work,2013.

Table 3.4

Facilities obtained by Artisans

| Sl.No. | Facilities           | No. of Artisans | Relative Frequency | Percentage |
|--------|----------------------|-----------------|--------------------|------------|
| 1      | Finance              | 9               | 0.0281             | 2.8        |
| 2      | Technical            | 8               | 0.025              | 2.5        |
| 3      | Raw material         | 5               | 0.015              | 1.56       |
| 4      | Power                | 4               | 0.0125             | 1.25       |
| 5      | Medical Facility     | 2               | 0.00625            | 0.625      |
| 6      | Educational Training | 2               | 0.00625            | 0.625      |
|        |                      |                 |                    |            |
|        |                      |                 |                    |            |
|        | Not getting support  | 290             |                    |            |
|        | Total                | 320             |                    |            |

Source: by the researcher through field work,2013.

Table 3.5.

Paired Samples Statistics

|                              | Mean     | N  | Std. Deviation | Std. Error Mean |
|------------------------------|----------|----|----------------|-----------------|
| Pair 1 Income Before Support | 2.6467E4 | 30 | 35868.99856    | 6548.75321      |
| Income After Support         | 2.0310E4 | 30 | 4369.98777     | 797.84696       |



Table 3.6.

**Paired Samples Test**

|   | Paired Differences |                |                 |   |             | t    | df | Sig. (2-tailed) |
|---|--------------------|----------------|-----------------|---|-------------|------|----|-----------------|
|   | Mean               | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |             |      |    |                 |
|   |                    |                |                 | Lower                                     | Upper       |      |    |                 |
| Pair 1<br>Income Before Support -<br>Income After Support | 6.15667E3          | 35296.99297    | 6444.31975      | -7023.44712                               | 19336.78045 | .955 | 29 | .347            |

Source: by the researcher through field work,2013.

From the above table it is found that calculated value of “t” is less then the calculated value of “t” which is .955, so our null hypothesis is accepted at 5% level of significance , which means there is no difference between income before support and income after support.

**3.5. Delimitation of the study:-**

- 1) Research study will be geographically limited to the district of Barpeta where the hub of the bell metal industries is located.
- 2) The study will cover all those areas where the bell metal industries are located.
- 3) Records not well documented as the artisans are not familiar with basic concepts of production, so the input given by them may not be accurate.
- 4) Information not shared/provided by some organization due to unavailable records and relying on only one data source may provide biased information.

**Picture -1**



Hitesh Talukdar (President) Pranjit Deka (Secretary) of Assam Cooperative Bell Metal Manufacturing Society

### **3.6 Benefits of rural industrialization:**

- I. Rural industries provide additional employment possibilities, raise production and enhance economic stipulations of rural areas.
- II. Rural industries are labour – intensive. They furnish extra employment to guys and women. Make certain decentralization of economic vigour and removal of monopolistic exploitation.
- III. Decentralized construction through community of well-knit rural industries removes the necessity of problematic managerial and competitive advertising and marketing systems, as a result lowering the price as a consequence of overheads.
- IV. Rural industrialization results in the development of rural areas thereby lessening the disproportionate growth in massive cities, reduces the progress of slums, social tensions, exploitations and atmospheric pollutions.
- V. Rural industry helps in human assets development.
- VI. Rural industrialization presents ample scope for the merchandising of inventive fulfillment and creativity that's suppressed in rural areas.

### **3.7. Bell-metal a hereditary cottage industry:**

Cottage and small industries have a very important role in the national economy. This industry provides opportunity to individuals, village or co-operative enterprises and rehabilitation to displaced persons. These industries are particularly suited for the better utilization of local resources and for the achievement of local self-sufficiency in respect of certain types of essential consumer goods.

Cottage industries are classified under the following heads:

- a. The peasant art & crafts that are carried out on subsidiary occupations by the cultivators for their household needs and sometimes for an external market.
- b. The industries which provides requirement of the village.
- c. The village art industries that is operated by the artisans.
- d. The urban arts and crafts.

Bell-metal industry is a family based cottage industry of Assam. In this industry capital requirements are for simple tools like anvils, hammers, tongs, chisels, iron scissors, files, pincers and a bellows fitted to a hearth on the ground. The bell-metal artisan smelts scrap metals in the hearth; cast them on required moulds with their weight, size, shape and thickness. The items are made by hand through incessant beating or hammering to get their required shape. The rough products are then made plain again by heating and beating with small hammers, final smoothing is done by using files. Finally the utensils are polished in the 'kund' (wooden wheel apparatus fitted with chisel rotated by man with the help of strings). After polishing decorative items are engraved with required patterns. In a bell-metal unit investment varies between Rs. 50,000/- to Rs. 1.00000/- providing employment to four persons in an average.

### **3.8. Cottage industries Vs domestic industries:**

There are a couple of counts of similarities and dissimilarities of cottage and domestic industries. Both use conventional ways of creation and produce ordinary items which may also be expanded and modernized. While cottage industries are operated with the aid of family and or

hired labours, a domestic enterprise is most often run by way of household labours on my own. A cottage enterprise is run either in or close to their homes or some distance, far from the artisan's home<sup>21</sup>. A bell-metal unit is from with 5 to 7 staff, but not greater than eleven persons. The executive operator (oja kahar) 'Maithnar', 'Kaitnar' and Advagiari' (helper) are the hierarchy of the artisans of the unit. Where as household enterprise is run within the household of a unit. The merchandise of cottage industries are meant for promote to customers, close or far way places, however the domestic industries products are for use at household purpose and hardly ever for exchange. It may well defined that, cottage enterprise is a market oriented common manufacturing recreation carried on with traditional technique.

### 3.9 Trends in Production:

The tendencies within the manufacturing of bell-metal information from 1994-95 to 2011-2012 have been regarded for analysis. During the last 18 years period show that the enterprise has shown some development in terms of price and form of creation. The relative increase in production pattern can also be gauged from the next table:

Table No 4.1

Production Trends of Bell-metal utensils in Sarthebari under co-operative society  
(1994-95 to 2011-2012)

| Sl. No | Year      | Finished Products in kgs. |
|--------|-----------|---------------------------|
| 1      | 1994-1995 | 20,665,000                |
| 2      | 1995-1996 | 22,186,000                |
| 3      | 1996-1997 | 22,278,000                |
| 4      | 1997-1998 | 24,314,000                |
| 5      | 1998-1999 | 25,866,000                |
| 6      | 1999-2000 | 22,580,000                |
| 7      | 2000-2001 | 28,888,000                |
| 8      | 2001-2002 | 35,018,000                |
| 9      | 2002-2003 | 35,183,000                |
| 10     | 2003-2004 | 35,237,000                |
| 11     | 2004-2005 | 35,120,000                |

|    |           |            |
|----|-----------|------------|
| 12 | 2005-2006 | 33,154,000 |
| 13 | 2006-2007 | 34,838,280 |
| 14 | 2007-2008 | 24,807,580 |
| 15 | 2008-2009 | 31,441,580 |
| 16 | 2009-2010 | 32,005,590 |
| 17 | 2010-2011 | 36,923,300 |
| 18 | 2011-2012 | 41,638,820 |

Source: The Assam Co-operative Bell-Metal Utensils Manufacturing society Ltd, Sarthebari.

The above table indicates that during the last 18 years the industry as a whole has made a steady progress. The only exception took place in the year 1999-2000 where it shows little decline of 22,580,000 kgs. as against 25,866,000 kgs. in the preceding year indicating a fall 2,286,000 kgs. The production of bell-metal in Sarthebari however, does not show any fall in during the year 2001- to 2007, but shows a fall in 2008. The figure shows an increase trend from 1994 to 2001, except in 1999 which was down to 22,580,000 a net fall of 2,286,000 kgs. From 2001 onwards the rise is from 28,888,000 to 35,018,000 kgs. From 2001 to 2005 the production shows stagnation. In the year 2005-2006 the production shows a decline of 35,120,000 kgs to 33,154,000 kgs. But it is insignificant. There has been a gradual increase in production from the year 2009 to 2012 (Fig-4.1)

Fig. 4.1

Production trends of Bell Metal Utensils in Sarthebari under Co-operative Society

# Finished Products in Kgs

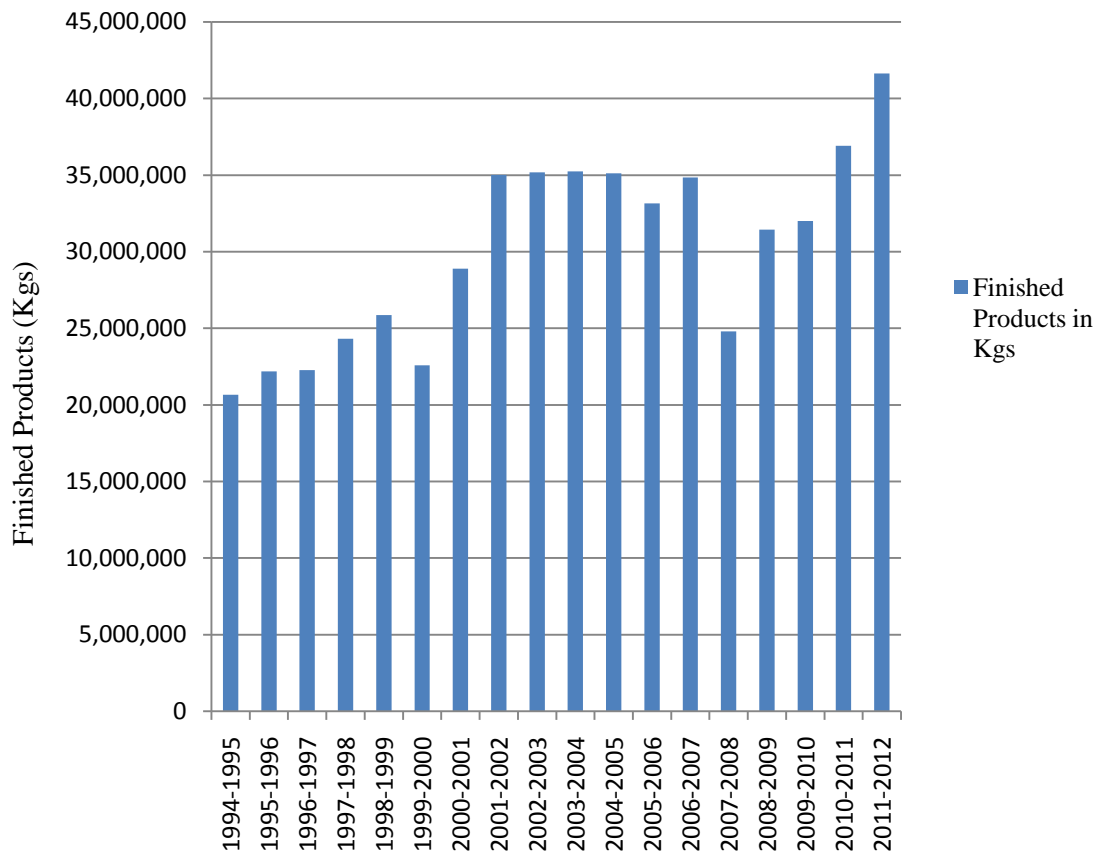


Table No. 4. Production rates of artisans in Bell-metal Industry of Sarthebari

| Size in gm   | Name of Utensils                     | Rate of wage (per kg) in January 2005 | Rate of wage (per kg) in January 2013 | Rate of wage increase (per kg) | Percentage of increase |
|--------------|--------------------------------------|---------------------------------------|---------------------------------------|--------------------------------|------------------------|
| 400-500 gm   | Saroj Nag Feti Bata (tray with foot) | Rs. 156.00                            | 254.00                                | Rs. 98.90                      | 62.8                   |
| 700-1100 gm  | Saroj Nag Fetibata (tray with Foot)  | Rs. 155.00                            | 241.00                                | Rs.86 .85                      | 55.48                  |
| 700-900 gm   | Charia (wash bowl)                   | Rs. 146.00                            | 298.00                                | Rs.152 .65                     | 104.1                  |
| 1100 gm      | Charia ( wash bow)                   | Rs. 146.00                            | 303.00                                | Rs.157 .00                     | 107.53                 |
| 1000 gm      | Bhortall (large cymbal)              | Rs. 152.00                            | 279.00                                | Rs. 127.00                     | 83.55                  |
| 1500 gm      | Bhortall (large cymbal)              | Rs. 157.00                            | 284.00                                | Rs. 127.00                     | 80.89                  |
| 1000-2000 gm | School Bell                          | Rs. 93.00                             | 230.00                                | Rs. 137.00                     | 147.3                  |
| 700 gm       | Kahi (plate)                         | Rs. 126.00                            | 253.00                                | Rs. 127.00                     | 79.96                  |
| 200-500 gm   | Khutitaal (cymbal)                   | Rs. 147.00                            | 329.00                                | Rs.182 .00                     | 123.80                 |
| 100          | Bati (cup)                           | RS. 100.00                            | 272.00                                | Rs. 172.75                     | 172                    |



|    |  |  |  |  |  |
|----|--|--|--|--|--|
| gm |  |  |  |  |  |
|----|--|--|--|--|--|

Source: KaharSilpiSangha, Sarthebari, 2014

The table (4.2) shows that an artisan in the year 2005 normally earns an amount of Rs. 100.00 for their production in 100 gm Bati(cup) and now for the same work the artisans earn Rs. 272.00. This shows the increase in wages is very insignificant considering the time gap of 9 years and most artisans are not getting their dues as per their work load. The table above manifests that there is a stagnant in the production process.

### **3.10 Problems of small scale Industries:**

Although the small and cottage industries of Assam have their resources but they are handicapped with innumerable difficulties. A few of these difficulties and problems confronted by cottage and small industries are discussed under: due to lack of know-how, illiteracy and conservative attitudes of the people the Sarthebari industry is yet to see its modernization. Outdated instruments and historic procedure of creation procedure nonetheless prevails. Artisans borrow cash from the money lenders by using paying excessive fee of curiosity in view that there aren't any different sources. This ultimately raises the creation rate. Non-availability of timely uncooked substances can be a nice deterrent to production.

### **3.11. Problems of Bell-Metal Industry:**

There is a declining trend of this industry in Sarthebari. The bell-metal industry of Titabor and Raha in Assam has already been shut down in 1969-70 due to lack of raw materials. Also due to substitute products which are available with much cheaper prices. Lack of diversification and modern outlook are also reasons for this industry's stagnant.

Bell-metal industry forms the largest industrial complexes in cottage and small scale industry in Assam, especially in Sarthebari of Barpeta district, in regard to number of units and outputs. There are 280 working establishments engaged in manufacturing of bell-metal utensils in the state. Most of the units are dependents partially or fully on the supply and availability of the raw materials. (Table-3.9). The units are entirely dependent on raw material

supply from the middlemen and cooperatives. Charcoal is an important raw material for this industry which is also supplied by a middleman.

Table No .3.9.

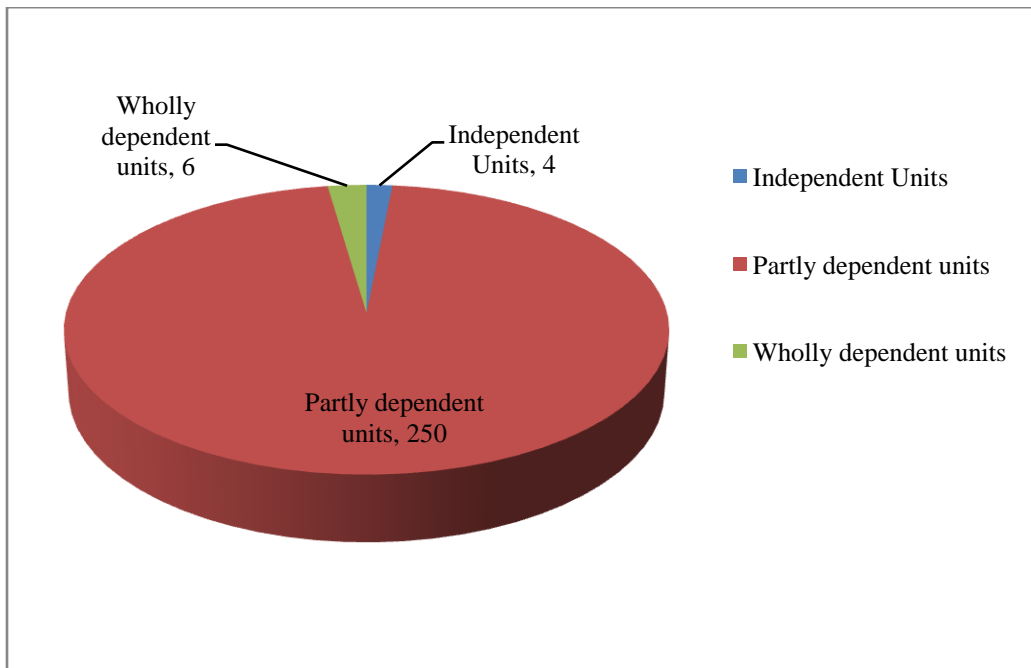
Number of units in each category as on 31<sup>st</sup> march 2012

| Sl. No | Types of units         | Number of units |
|--------|------------------------|-----------------|
| 1      | Independent Units      | 4               |
| 2      | Partly dependent units | 250             |
| 3      | Wholly dependent units | 26              |
| Total  |                        | 280             |

Source: by the researcher through field work,2013.

Fig-3.2

Numbers of Units in each category as o 31<sup>st</sup> March 2012



TableNo:3.10.

Distribution of Bell-Metal Units according to their status

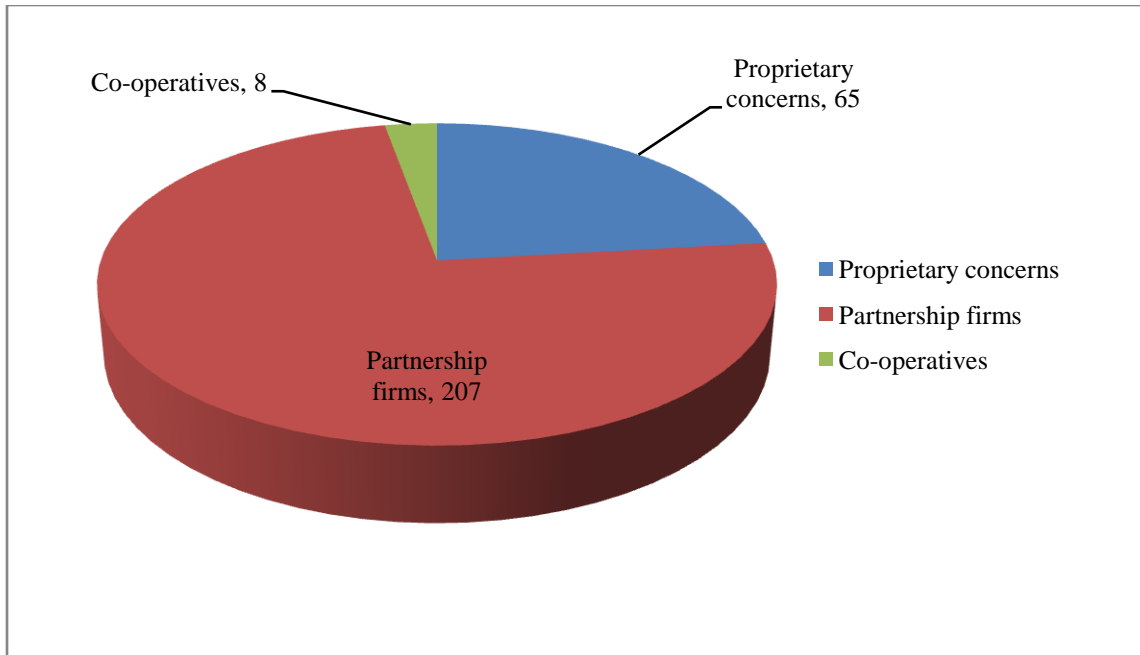
| Status of the units    | Number of units |
|------------------------|-----------------|
| 1.Proprietary concerns | 65              |
| 2.Partnership firms    | 207             |
| 3.Co-operatives        | 8               |
| Total                  | 280             |

Source: by the scholar through field work, 2013

The table reveals that sole proprietorship is one of the forms of business organization in bell-metal industry of Sarthebari. Out of 280 units only 65 units are under the proprietorship (23%). The main reason for creating this form of organization is to earn more profit. The other 207 units (73.9%) of Sarthebari belong to the category of partnership firms. The most leading bell-metal manufacturing units of Sarthebari are partnership firms, where a group of 4 to 5 artisans forms a partner of a unit. They collect raw materials from the traders or from the cooperative society on condition that after manufacturing the products, they are to hand over to traders or to society. Majority of the partnership firms are family run and some are outsiders who runs as a partner. Co-operative firms are not many in the bell-metal industry of Sarthebari. Only 8 units out of 280 units (9.2%) are regularly working under the co-operative society (Fig-3.10.)

Fig-3.3

Distribution of Bell-Metal Units according to their status



### 3.12 Causes of stagnation in Bell-Metal Industry:

Many problems of creation, distribution and finance nonetheless proceed to afflict the small scale enterprise of the state. Whilst a few of them are more or less long-established to a extensive range of small industries, others have distinct relevance to a group of small industries and to industries founded in rural and undeveloped areas. The surveys, which were implemented with the aid of financial investigation team connected to small industry services institute in every state. They have thrown useful light on various difficulties and issues confronted by way of unique small scale industries, and have advocated measures to beat them.<sup>8</sup>, the issues of small industries are divided into two groups – outside and internal.

### 3.13.Finance

Small items aren't completely dependent on executive help. These types of units exist as a result of the demand for their merchandise in neighborhood and or local markets. The initial investment in these units comes regularly from the entrepreneur's own money, in the local borrowed money or from household, associates and professional lenders. Very little is to be had

from the banks or government channels. These small units are unable to provide guarantees required by the banking sector for availing loans.

Loans problems are common to bell-metal enterprise additionally. The lack of minimal economic amenities at reasonable fee is a major obstacle to the industry. The bell-metallic Artisans are commonly poor and have no surplus amount to spend money on the enterprise. The bell-metallic artisans are normally negative and have no surplus amount to spend money on the industry. Probably the most long-established grievance of all the artisans dealing with bell-metal industry is lack of finance. The items are relying on their own and borrowed cash from non-banking and non-governmental sectors. The banks and government economic companies are reluctant to supply money to this enterprise due to lack of right establishment. Most of the entrepreneurs are illiterate or semiliterate and lacks knowledge in entrepreneurship. They are unable to store raw materials and with no inventory their completed merchandise is dependent with the lack in capital. Relatives and family members are not coming to present any financial support to the artisans probably, for that reason the choices of source of credit used to be only the village money lenders, who at all times exploit them by charging high rates of interest. The artisans of Sarthebari depend on the whole on the merchants who furnish advance scrap bell-metal on credit score with difficult conditions. The merchants take the finished merchandise at a fee they decide. Thus the major share of the revenue of the bell-metal industry goes to the traders through more than a few techniques, right from the acquisition of scrap bell-metal to the sale of completed products.

#### **3.14.Shortage of Raw Materials:**

The raw material for the industry is always at short supply with high price. This has been invariably a knowledge issue of the small scale industrial sectors in Assam. Considering of their small in size and weak economic condition, small scale industries need to make use of the offerings of middlemen to get raw materials on credit. Such an association, nonetheless, increases the price of the material after which manufacturing price. Hence reduces the profit margins of the artisans. More often than not raw material manufacturers and suppliers create artificial scarcities to elevate price of the materials. The government policies also changes probably in regard to cost controls of such commodities.

### **3.15 Technical advantage and Primitive tools:**

The artisans have limited potential about contemporary instruments and technology use in bell-steel construction and so they nonetheless use primitive tools and equipments. The industry runs on heredity approach the place they inherit from their father and forefathers. Most bell-metal units do not preserve income expenditure money owed. Utilising primitive tools artisans are unable to manufacture appealing portions. The more youthful iteration will not be drawn to this enterprise. The principal tools are anvils of specific sizes (balmuri, chatuli and akue), hammers, Pincers, documents, chisels and some minor gear. The learn exhibits that the typical capital required to run a bell-metal enterprise unit is between Rs. 2000 to Rs. 2500.

### **2.16 Substitute products:**

It's also a incontrovertible fact that the utensils manufactured at Sarthebari are going through steep competition with the similar merchandise from Muradabad and Agra. The articles from Muradabad are mild in weight and attractive in appearance, but the articles manufactured at Sarthebari are heavy and semi-finished. Articles produced in Sarthebari cost greater than similar articles produced in Muradabad. The important risk to this industry has been competitors from modern utensils. A bell-metal utensil involves more quantity of metal for this reason it's bulkier in weight and more luxurious in rate. Labour earnings element constitutes 14.6% of the complete rate of the production; the rest is amount is for gas and chemical etc. Eleven Many bell-metal typical utensils like 'lota' (vessels), 'kalah' (pitcher), 'charia' ( wash bowl) are being changed by way of tin, aluminium and plastic merchandise off various designs for domestic and social uses. Regularly demands for bell-metal utensils are decreasing within the face of cheap chinese crockery and different merchandise which are conveniently in the market at low prices.

### **3.17. Modernization and Diversification:**

The artisans of Sarthebari manufacture only ordinary utensils for home and social use. There is not in any demand for historic fashioned, bell-metal utensils particularly in cities has lost its popularity. To create market for the bell-metal merchandise the enterprise wants to be modernized in order that it could possibly produce utensils of modern-day design to cater to the desires of the gift population. Point out must be made that a few artisans have taken the initiative to make utensils of up to date designs.

Picture-4



Picture showing solidifying of the molten metal.