

Is Socio-economic Condition of *Manipuri* Tribe Improving?- A Two Phase Comparison Using Income Distribution Model

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Abstract Background: Bangladesh has fairly a few varieties of tribal communities living in different parts of the country. Among these *Manipuri* is the oldest one and underprivileged in terms of socio-economic development and hence, have to face discrimination in education, employment and civil rights. This study is designed to assess changes in their socio-economic condition through a two phases study. **Methods:** Two distinct sample surveys were conducted in two different phases using cluster sampling procedure to collect the primary data from Sylhet, Bangladesh. The socio-economic condition of *Manipuri* community was investigated by using various univariate and bivariate statistical tools. Income distribution modelling was applied to estimate income inequality by Gini-Coefficient, Gini's Concentration Ratio and Lorenz Curve. **Results:** No mentionable improvement is observed in the level of education though proportion of women with secondary or higher secondary is increased in a very low rate, however, the percentage of higher educated women is decreased substantially. It is unfortunate in *Manipuri* community that the number of occupied women is decreasing significantly due to lack of better employment opportunity and lack of better facilities for their traditional weaving profession. While the housing condition is bit improved compared to phase one, overall housing condition is not satisfactory. Although average income of *Manipuri* family is increased slightly, most of the income is concentrated in the hands of a few households. **Conclusions:** To improve their socio-economic condition, necessary actions should be taken on education, employment opportunity and/or their traditional weaving of *Manipuri* community.

Keywords Gini-Coefficient, Gini's Concentration Ratio, Lorenz Curve, *Manipuri*, Income distribution, Socio-economic condition

1. Introduction

Among few varieties of tribal communities in Bangladesh, *Manipuri* community is the oldest one [1]. Majority of the *Manipuri* people of Bangladesh live in Sylhet division. Like other communities *Manipuris* have an individual culture and custom Monipuri culture is considered to be one of the oldest cultures in the sub-continent. Monipuri art and culture is the pride of the Monipuri community in Bangladesh [2, 3, 4]. However, it is a matter of great concern that those are fading away [5].

The contrast between one community and other is enhancing noticeable in Bangladesh and *Manipuris* especially the *Manipuri* women have to face discrimination

in education, employment and civil rights though the income of *Manipuri* women provides a major contribution to the economic-resources of *Manipuri* family. They use traditional handloom to make *Manipuri* bed sheet, bedcover, pillow cover, ladies shawl and woollen shawl are the best in sales [6]. In Sylhet city, *Manipuris* are concentrated mainly in Sylhet town suburb areas e.g. *Lamabazar*, *Manipuri Rajbari*, *Laladighirpar*, *Kewapara*, *Narsingtilla (Bagbari)*, *Sagardighirpar*, *Subidbazar (Nayabosti)*, *Ambar-Khana*, *Gowaipara (Barabazar)*, *Brajanathtilla*, *Shibganj*, *Nayabazar* and *Dakshingachh*. The year of forming this settlement is very old [1].

Tribal people and their culture is national asset of a country. Like other ethnic minority people of Bangladesh, *Manipuri* community is underprivileged at every sphere of human development. Moreover, they are deprived of various civil rights and facilities that other indigenous people have. Various national and international organizations are promoting diverse programs to improve

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Published online at <http://journal.sapub.org/statistics>

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the livelihood of different tribal people of Bangladesh but no organization is working specifically for the development of this community. The socio-economic condition of *Manipuri* community should be developed. Researches to explore their socio-economic condition and reproductive behavior is needed, however there is no mentionable data based research on this community is available. We have taken this opportunity to put forward a study concerning the women of *Manipuri* community in Sylhet, Bangladesh through this data based research. Through this study, we put forward some suggestions to develop the socio-economic conditions of the people of *Manipuri* community in Sylhet and in other parts of Bangladesh.

2. Materials and Methods

2.1. Data

The study is based on primary data. Two distinct sample surveys were conducted in two different phases in the years 2001-2002 and 2008-2009 respectively under the financial support of Ministry of Science and Technology, Government of Bangladesh. In the first phase (in 2001-2002) a total of 101 ever married women and in the second phase (in 2008-2009) a total of 201 ever married women were interviewed. Sylhet city was selected as the study area in a sense that it is considered as the most densely populated area of *Manipuri* people.

2.2. Sampling Technique

A cluster sampling procedure was used to collect the primary data. There are thirteen *Manipuri* paras in Sylhet city. Each of the *Manipuri* paras of Sylhet city was considered as a cluster. At the first phase (in 2001-2002) four paras were selected at random and covered all the married women. At the second phase (in 2008-2009) eight paras (including four paras of first phase) were selected at random and covered all the married women. A total of 101 women in the first phase and 201 women in the second phase were successfully interviewed.

2.3. Analytical Tools

An exploratory data analysis was done to have an insight of the data. The socio-economic condition of *Manipuri* community was investigated by using various statistical tools. Pareto's law of income distribution, Gini coefficient, and concentration ratio were calculated to investigate concentration of the income distribution of community people. The Gini coefficient is the area between the Lorenz curve of the income distribution and the diagonal line of complete equality [7, 8]. The empirical formula to measure inequality is

$$y = \frac{A}{(x-a)^v} \quad (1)$$

where, y is the number of people having income x or greater, a is the lowest income on which the curve begins and A, v are certain parameters. By the Method of Least Squares (MLS) we get the Gini's coefficient as follows:

$$-\gamma = \frac{\sum x'y' - \frac{\sum x' \sum y'}{n}}{\sum x'^2 - \frac{(\sum x')^2}{n}} \quad (2)$$

And Gini concentration ratio (ρ) is defined as follows:

$$\rho = \frac{1}{2\gamma - 1} \quad (3)$$

The Gini coefficient was used to indicate how the distribution of income has changed within a representative *Manipuri* community over a period of time, thus it is possible to see if inequality is increasing or decreasing.

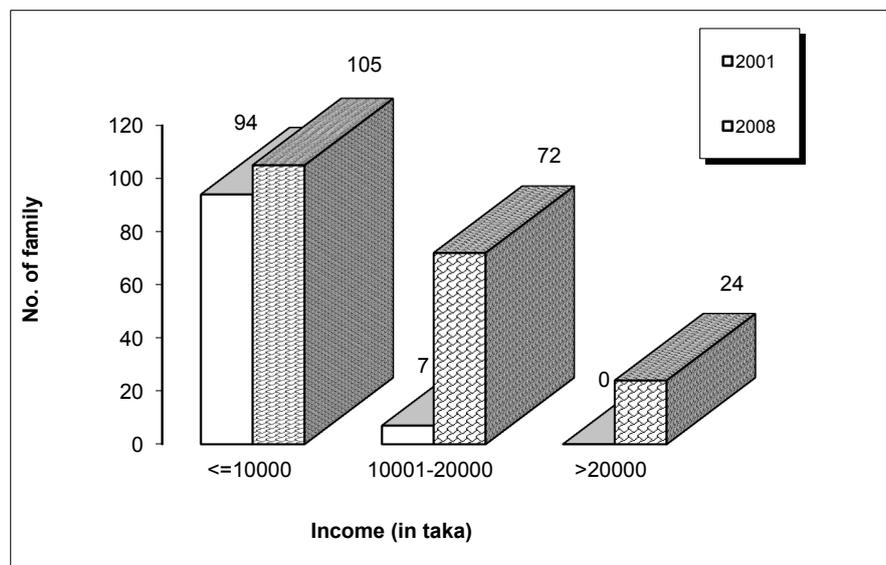
3. Results and Discussion

Education is one of the key determinants of the life style for improving the status of society [9, 10]. A tendency of sending *Manipuri* girls to secondary and higher secondary classes was much higher than before the liberation war of Bangladesh in 1971. They were used to send to husband's house, and hence, higher education was not a necessary in an environment where they had to be good house-wives only [6]. About 5% respondents were found with no education in 2001, which diminished to 2.5% in 2008. The proportion of *Manipuri* women with primary and secondary school certificate (SSC) level education was approximately same for both phases and proportion of *Manipuri* women with but higher secondary school certificate (HSC) were found 12.9% and 17.9% in phase one and two respectively. Only about 7% respondents were found as graduate in both years. It is also found that husbands' educational level was better than that of their wives (Table 3.1). Among *Manipuri* women, about 23% in 2001 and 60% in 2008 were found unemployed. Among employed *Manipuri* women the major portion were involved in weaving followed by business. The figures for weaving (70.3% in 2001 and 32.8% in 2008) indicate that *Manipuri* women were diverting from weaving to other professions over time. The tendency of involving in service or entering in job market of *Manipuri* women was increased by 7% from 2001 to 2008. Professionally, the *Manipuri* people are very closely related to the vast majority of the Bengali community in Bangladesh [11]. The respondents were asked about their husbands' occupation. It was found that (table 3.1) majority of the husbands were engaged in business (56.6% in 2001 and 25.9% in 2008). No goldsmith was found in 2001 whereas 15.2% were goldsmiths in 2008. Moreover, percentage of motor mechanics was increased from 1 to 11.2.

Table 3.1. Distribution of respondents by education and occupation

Characteristics	In 2001		In 2008	
	Number of respondents*	Percentage	Number of respondents*	Percentage
Education of respondents				
Illiterate	5	5.0	5	2.5
Primary	33	32.7	56	27.9
SSC	42	41.6	89	44.3
HSC	13	12.9	36	17.9
Graduate	7	6.9	14	7.0
Post-Graduate	1	1.0	1	.5
Education of Husband				
Primary	16	15.8	38	18.9
SSC	36	35.6	80	39.8
HSC	23	22.8	41	20.4
Graduate	24	23.8	33	16.4
Post Graduate	2	2.0	9	4.5
Occupation of respondents				
Service	1	0.9	7	3.5
Weaver	71	70.3	66	32.8
Business	5	4.9	7	3.5
Seamstress	1	0.9	2	0.9
Unemployed	23	22.8	119	59.2
Occupation of husband				
Busyness	56	56.6	51	25.9
Service	27	27.3	47	23.9
Goldsmith	-	-	30	15.2
Motor mechanics	1	1.0	22	11.2
Others (salesman, Artist, driver, Carpenter)	15	15.2	47	23.9

*Number of respondents may not be 101 (2001) and 201 (2008) due to non-response

**Figure 3.1.** Distribution of monthly family income

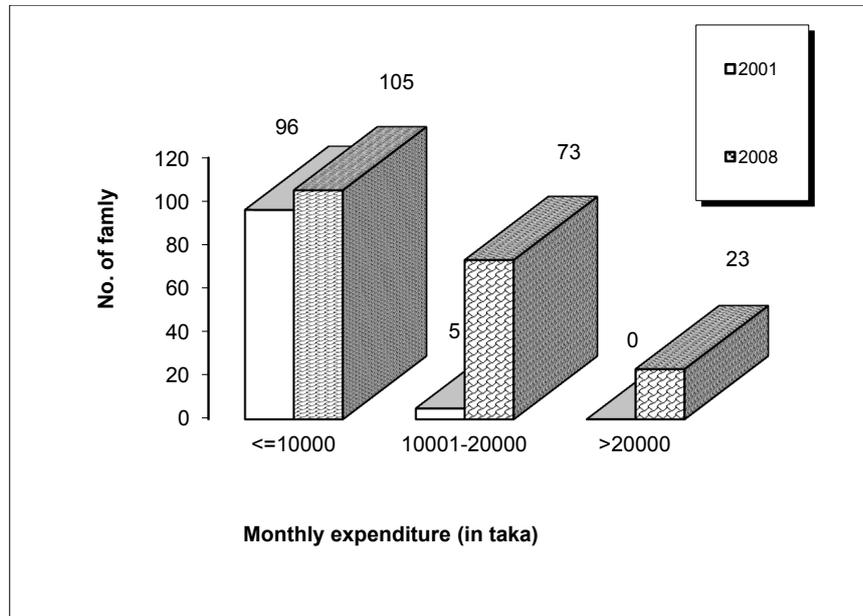


Figure 3.2. Distribution of monthly family expenditure

Table 3.2. Distribution of residential land ownership and housing characteristics

Characteristics	In 2001		In 2008	
	Number of respondents*	Percentage	Number of respondents*	Percentage
Residential land (decimal)				
≤ 20	83	92.2	148	81.3
>20	7	7.8	9	4.9
Don't know	-	-	25	13.7
Housing type				
Main material of roof				
Concrete	56	55.4	85	42.3
Tin	44	43.6	116	57.7
Others (bamboo/thatch)	1	1.0		
Main material of wall				
Concrete	93	92.1	191	95.0
Tin	5	5.0	3	1.5
Others (bamboo/mud)	3	3.0	7	3.5
Main material of floor				
Concrete	84	83.2	187	93.0
Others (soil, semi pucca)	17	16.8	14	7.0

*Number of respondents may not be 101 (2001) and 201 (2008) due to non-response

The average monthly family income of the respondents was found BDT 13722.38 with standard deviation BDT 10686.87 in 2008 and BDT 6331.68 with standard deviation BDT 2876.44 in 2001. It is evident from the graph 3.1 that the monthly family income of the respondents was increasing extensively. More specifically, in 2008, 11.9% respondents had monthly family income more than BDT 20000 whereas no such family was found in 2001. In addition to income, their monthly family expenditure was

also increasing. It was depicted that in 2008 the average monthly family expenditure was BDT 13447.01 with standard deviation BDT 10550.88 whereas it was BDT 5622.77 with standard deviation BDT 2819.67 in 2001 (Figure 3.2).

The percentage of joint family of the *Manipuri* community in Bangladesh is so high that nuclear family is nearly absent [6]. In contrast, we found that in 2008 there were 36% nuclear and 58% joint families, whereas in 2001 there were

49% nuclear and 45% joint families (Figure 3.3). That is, joint families were increased in 2008 compared to 2001. However, their house ownership was not increased in the similar manner. We observe that only two percent house ownership was increased in 2008 compared to 2001, and the rest of the respondents mentioned that they had no own house (Figure 3.4). The Manipuri Religion is said to be the oldest organized religion of South-East Asia. All of our sampled Manipuri women were Hindu. Respondents were asked about the land holding and about housing materials. About one fourth of the respondents in 2008 mentioned that they had no idea about their homestead land area (Table 3.2). However, in 2008, it is observed that 81% respondents had homestead land area of 20 decimal or less and in 2001, 92% respondents had homestead land area of 20 decimal or less. The relationship between the Manipuri lifestyle and their construction of houses had been reflected in the past. But as the life style becomes westernized, there have been changes in using housing and construction materials [12]. Similar to Singh (2005), we also found that the housing condition of the respondents of 2008 became standard than that of the respondents of 2001. The use of concrete as their housing (roof, wall, floor) materials in 2008 was comparatively higher than those in 2001.

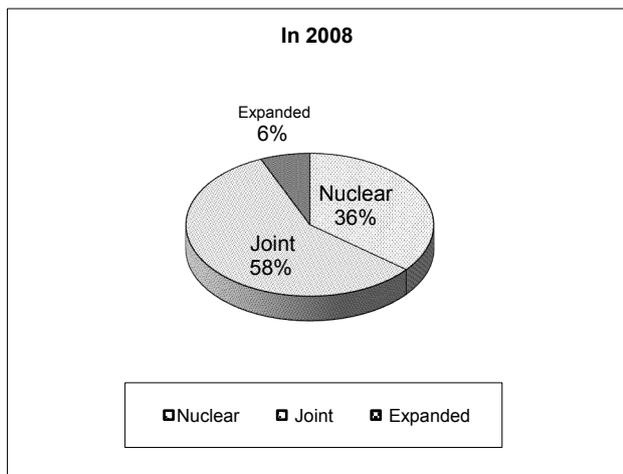
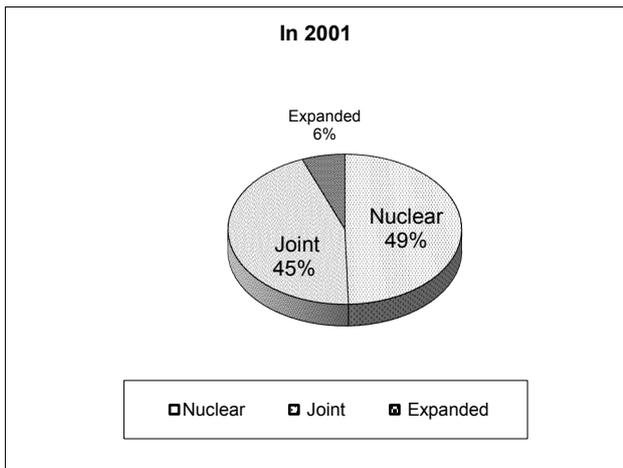


Figure 3.3. Pie diagrams of respondents family type

3.1. Income Inequality by Gini-Coefficient and Lorenz Curve Calculation of Gini's Concentration Ratio

Concentration ratios show that 57.07% and 55.72% income was concentrated in the hands of a few households and rest 42.93% and 44.28% of the total income was almost equally distributed in 2008 and 2001 respectively as shown in the Table 3.3.

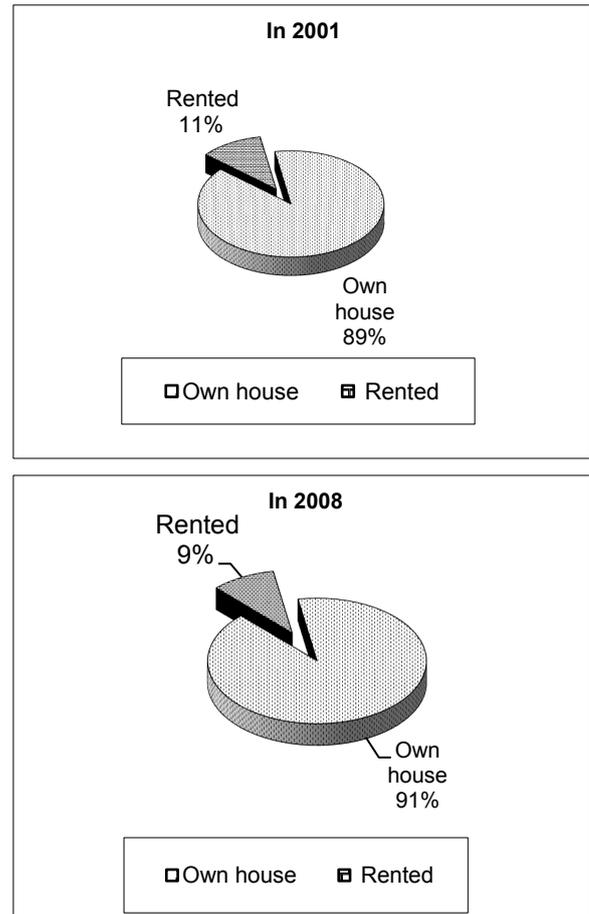


Figure 3.4. Pie diagrams of present residence statuses of the respondents

Table 3.3. Gini's coefficient and Concentration ratio

In 2001	In 2008
Gini's coefficient, $\gamma = 1.397$	Gini's coefficient, $\gamma = 1.376$
Estimated Gini's Concentration ratio is: $\hat{\rho} = 0.5572$	Estimated Gini's Concentration ratio is: $\hat{\rho} = 0.5707$

3.2. Lorenz Curve

A common way to analyze personal income statistics is to construct a Lorenz curve (Gujrati, 2004; Koutsoyiannis, 1973). Lorenz Curve provides a visual representation of the information we wish to consider, in this case the inequality of wealth prevailing in Manipuri community over two time period. Figure 3.5 shows that 57.07% and 55.67% income was concentrated in the hands of a few households and rest 42.93% and 44.33% of the total income was almost equally distributed in 2008 and 2001 respectively.

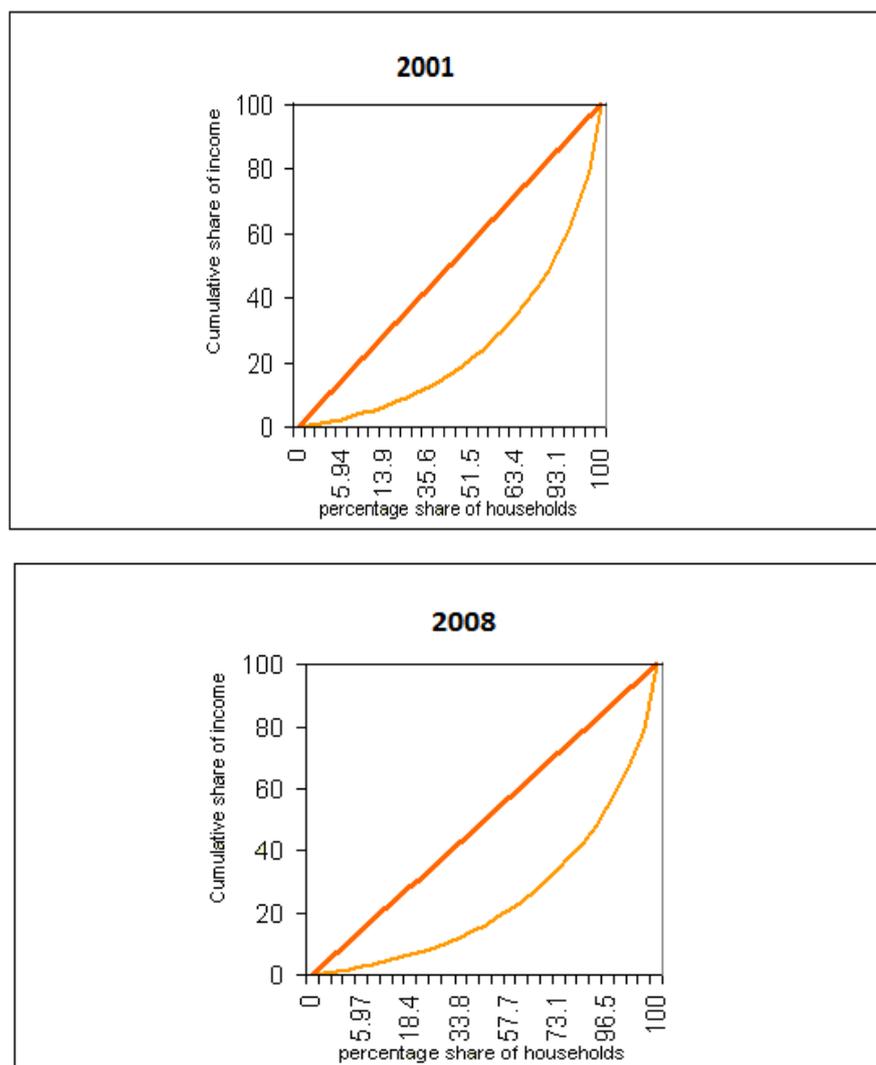


Figure 3.5. Lorenz Curve of Income Distribution (2001)

4. Conclusions

Tribal people and their culture is national asset to a country. Although *Manipuri* culture is considered to be one of the oldest cultures in the sub-continent, in Bangladesh *Manipuri* people are deprived of various civil rights and facilities that other indigenous people have. This study is designed to investigate the socio-economic conditions of *Manipuri* tribe and to see whether there is improvement in their socio-economic conditions in a two phase study. This study is mainly based on primary data and some secondary information is also used for comparison. Sylhet city is selected as the study area in a sense that it is considered as the most densely populated area of *Manipuri* people. A strong effort is made to ensure a representative sample of the study. In order to reach the ultimate sampling unit, cluster sampling design is adopted. The study is expected to provide the policy makers and planners of Government and Non-Government agencies vital information about *Manipuri* women and their community needs.

No mentionable development had been found in the education sector of *Manipuri* community from the year 2001 and 2008. Although the percentage of women with SSC and HSC level education was increased in a very low rate, the percentage of higher educated women was decreased by fifty percent. Husbands' educational level was found better than that of their wives. It is unfortunate in *Manipuri* community that the number of occupied women was decreasing. The number of women who were involved with different jobs reduced about fifty percent from 2001 to 2008 due to the lack of better employment opportunity and the lack of better facilities for their traditional weaving profession. *Manipuri* women were diverting from their traditional weaving to other professions like service, business and seamstress. Like women their husbands were also diverting to new professions such as goldsmith, motor mechanics and others from business and service. Average incomes and standard deviations of both years indicate that though the income level was increased in 2008 from 2001, it is true only for few people. Gini's concentration ratios clarify this fact. Monthly

savings extensively decreased since expenditure was increased in a high rate. Where nuclear families are increasing all over the country, different picture was shown in *Manipuri* community. The number of joint family was increased whereas percentage of nuclear family was decreased than 2001 since their house ownership was not increased as well. Although the housing condition was improved in 2008 as compared with 2001, the overall housing condition was not satisfactory. In spite of living in urban area still now about half of the *Manipuri* families were living under tin made roof, which represent their poor economic condition.

There are some limitations in this study. Firstly, sectarian restriction is a problem in *Manipuri* community. So, it was cumbersome job to collect information from the people of *Manipuri* community due to their conservativeness and language (*Bengali*) problem. For that reason, there may be arisen information bias in the collected data. Secondly, there may be raised non-sampling errors for several data required such as income, expenditure, savings, loan, land ownership etc. because some of the respondents had no correct idea about these variables. Gini Coefficient would work best if data on each and every resident in the *Manipuri* community is available. This can ensure most accurate Lorenz curve and thus most accurate computation of the coefficient. But in this study, we randomly selected group of *Manipuri* people which may lead to selection bias in our analysis. It would be interesting if Optimal Data Analysis Paradigm could have been used as a robust statistical method which might be added a new contribution to the investigation [13, 14]. Further investigations should be done in future to have a clear picture of the socio-economic condition of all *Manipuri* tribe in Bangladesh if data have been collected for each and every people of that community.

ACKNOWLEDGEMENTS

We acknowledge the invaluable financial support from the Ministry of Science and Technology, Government of People's Republic of Bangladesh without which this research work would have been difficult to conduct. We are grateful for the generosity of time and effort by the participants and all researchers who make the project possible.

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