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Food Security Status of Indigenous People: A Case of Chapainawabganj District of Bangladesh

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ABSTRACT

This study assessed socioeconomic and food security status of the indigenous people especially Santal live in Chapainawabganj district of Bangladesh. The analysis was anchored on a sample of 100 Santal households. Descriptive statistics and a food security index were employed to achieve the main objectives of the study. It was evident from the study that the respondents showed remarkable individual differences in their characteristics and majority (76%) of them belonged to middle aged category (35 to 50 years) having very low literacy rate (32%). Most of the respondents' family size was small and medium (94%) and had farm size of 0 to 0.02 hectares (63%). The highest proportion of the respondents' (85%) annual income was up to Tk. 60000. In addition, the average daily per capita calorie intake was 1962.60 kcal which was relatively lower than the recommended daily per capita calorie intake (2122 kcal) for the households. Finally, this study identified some crucial problems relating to their socio-economic and living standard. The highest proportion (87%) of the sample households were in poor financial condition as their main problem followed by lack of institutional credit, lack of educational and health facilities, lack of training facilities, etc.

Key words: Daily calorie intake, Food security, Indigenous people, Santals community, Standard of living

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1. INTRODUCTION

The right to food is of particular importance to vulnerable groups, amongst which are indigenous peoples. Indigenous peoples usually fall into the poorest segment of society. They make up about 5 percent of the world's population but comprise about 15 percent of the world's poor (IFAD, 2007). As poverty is a key determinant of food insecurity, it is not surprising that the levels of hunger and malnutrition among indigenous populations are disproportionately higher than the mainstream populations.

Along with the majority Bengali population, Bangladesh is a country of cultural and ethnic diversity, with over 54 indigenous groups. The country's indigenous population is approximately 1,586,141, which represents 1.8% of the total population of the country, according to the 2011 Census.

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However, it is claimed by indigenous peoples that their population is over three million (Roy & Chakma, 2015). Indigenous people in Bangladesh are, in general, very poor, illiterate, and their livelihood depends on wage earnings and shifting cultivation (Uddin, 2000). A small land base, low agricultural productivity and low incomes have led to rising indebtedness, trapping indigenous people into a vicious circle of exploitation. Industrious and hardworking as they are, the indigenous people are still reluctant to follow any modern conservation practices.

Santals, one of the major ethnic groups, mainly live in districts of Rajshahi division. According to an estimate made by Christian missionaries in the 1980s, the Santal population in northern Bangladesh was over one hundred thousand. According to the 1991 census, the Santal population was over two hundred thousand (Banglapedia, 2006). In 2001, according to one estimate, the Santal population in Bangladesh was numbered around 157,000, but the report of World Bank (2008) has estimated the number around to be 300,000 (Cavallaro, 2009). Santals are among the earliest settlers of the subcontinent and are acknowledged as the progenitors and upholders of agricultural system and agro-based culture. Santals are one of the most disadvantaged, vulnerable and socio-economically poor and are the victims of severe exploitation and injustice (Elahee, 2013). As they lead a poor life, they are compelled to sell their labour at a very low price besides farming. They dig soil, carry loads and involve themselves in similar works of day labourer. They are industrious and hardworking, but the scientific side of their knowledge about cultivation and managing their land has not been developed yet. This is largely due to the lack of awareness and knowledge on modern methods which has subsequently led to a situation of inadequate food production that is threatening their food security. Achieving food security requires that the aggregate availability of physical supplies of food is sufficient that have adequate access to those food supplies through their own production. That is why, the present study had given much emphasis on focusing the issue of food security and socioeconomic condition of the indigenous Santal people who are actually subsistence farmers and cling to tier land as their principal occupation.

Maharana & Patel (2018) made an attempt to focus on the socio-economic condition of Santal people of Bantali Rakhasahi village of Mayurbhanj district of Odisha and was an attempt to find out the factors those affected their socio-economic conditions. The results revealed that the Santal peoples faced many problems relating to their day to day life as they were not getting healthy housing facility, proper sanitation facility, proper nutrition, safe drinking water, and other household amenities and so on. For improving their socioeconomic conditions some of the basic services should adequately be provided. They needed opportunities to develop their socio-economic status. There was a need to put more attention on educational aspects of scheduled tribes, where this only could motivate them for future life.

Alamgir (2017) studied on Rights of Indigenous People in Bangladesh: A Case Study in CHTs (Chittagong Hill Tracts). He presented the nature of the exclusion, deprivation, protect and prospects, economic rights of the 'adivasi' people especially Chakma in the CHTs in food and social security, health, water and sanitation, education and income via social policy perspective through using both of qualitative and quantitative method. Biswas (2008) studied on state of indigenous people's rights in Bangladesh and assessed bureaucratic and political sensitivity towards them. He discussed about the dimension of deception of the indigenous people of Bangladesh. He pointed out how insensitive the bureaucracy as well as politicians towards indigenous communities. A logistic regression was used by Kidane et al. (2005) and Feleke et al. (2005) to assess the causes of household food insecurity. Surprisingly only limited literature related to indigenous people and their food security status was available in Bangladesh. Rights and vulnerability of indigenous people and studies related to food security throughout the world were conducted but socio economic and food security status of Santal people had not yet been done in Bangladesh. This study was therefore undertaken with the following specific objectives: i) To identify the present socioeconomic conditions of the indigenous people; ii) To assess the food security status of the respondent households; and iii) To find out the major problems of the respondents relating to their living standard.

2. MATERIALS AND METHODS

This study was based on primary data collected from selected respondents of five Santal areas of Chapainawabganj district, namely Delbari, Baliadanga, Babudaying and Jolahar and Jamtala. A simple random sampling technique was followed for selecting 100 respondents for the study. Twenty respondents were selected from each area.

The required data were collected in November 2017 using a structured interview schedule. Secondary data were also collected from the government and research reports, online materials and periodicals. Descriptive statistics were employed to examine the objectives (i) and (iii) whereas food security index (Babatunde et al., 2007) was used for analyzing objective (ii).

The variables of this study which influenced the respondent's opinion were age, educational status, family size, occupation, cultivable land, annual income and their main problems relating to socio-economic conditions.

In order to measure food security for each household in the sample, the study derived a food security index from the daily per capita caloric intake of each household compared to the recommended per capita daily caloric intake. When the caloric intake for the household was greater than or equal to the recommended intake, the household was considered to be food secure and the household food security status Zi took the value 1. If the intake was lower than the

recommended requirement, then the household was considered to be food insecure and Zi was equal to 0.

Surplus index or food insecurity gap was also used to measure the extent to which a household was food secure or insecure.

The index is given as:

$$P = \frac{1}{M}\sum_{i=1}^{m} Gi \qquad \text{(Babatunde et al., 2007)}$$

Where,

P = Surplus index or food insecurity gap;

M = Number of household that are food secured (for surplus index) or food insecured (for food insecurity gap); and

G_i = Per capita calorie intake deficiency (or surplus) faced by i^{th} household.

$$G_i = \left(\frac{Yi-R}{R}\right) \qquad \text{(Babatunde et al., 2007)}$$

The head count ratio measures the percentage of the population of household that are food secured or insecured. This is defined as:

$$H = \frac{M}{N} \qquad \text{(Babatunde et al., 2007)}$$

Where,

H = Head count ratio;

M = Number of individuals that are food secured (for surplus index) or food insecured (for food insecurity gap); and

N = Population size.

3. RESULTS AND DISCUSION

3.1 Socioeconomic Characteristics of the Respondents

First, it was essential to know the socio-demographic profile of the sample household to get a complete picture of indigenous Santal people and their food security status. Table 1 showed the demographic characteristics of the respondents of the study area. Average age of respondents was 43 years. The percentage of young people was 15.00 belonged to the age group which is less than 35 years. 76 percent were in between 35 to 50 years category represented middle aged, became the majority. So it can be stated that the respondents were slightly older and more experienced which was similar to the findings of Afsar (2015).

Most of the Santal students came with low socio-economic background and they left their education in the very early age. At the age of 9 or 10, the child became an economic asset, because he/she could work at home or could work outside to earn because of low economic condition (Patel, 2017).

The study showed that 68 % of the respondents were illiterate, 18 % had primary level education, 8 % had secondary level and only 6 % had higher secondary level of education. The findings of Maharana et al., (2018) are similar to these results. Poor economic condition creates great hindrance to the successful education of the tribal people (Maharana, 2015). Table 1 showed that the highest proportion (80 %) of the respondents had medium family size compared to (6 %) large family size. The average family members of the study area was 5.2 which is greater than the national average family size in rural areas in Bangladesh is 4.89 (Anonymous, 2015).

The highest proportion (63 %) of the respondents were landless farmer, who had farm size of 0 to 0.02 hectares. It might be an indication that most of the indigenous people did not have any own land since the total percentage of landless and small farms comprised 100% of the total farm size. The average income of the respondents of the study area was Tk.68000.78 which was lower than the national average that is more than Tk.77700 (Trading Economics, 2017). The main occupation of a farm household considered in the present study was the one from which maximum income was earned. It appeared that the vast majority of the selected respondent (76 %) had agriculture as their principal occupation. Most of the respondents earned their livelihood through crop production, livestock rearing, digging soil and day laboring. Besides, small business was the mode of earning in the study area. The wage varied from male to female; normally male earned Tk. 300-350 per day, whereas the female earned Tk. 250-300 per day.

3.2 Food Security Status

Food security could be seen from three perspectives, such as availability of food, access to safe food and nutritious food and utilization of food. The construction of food security index involved two steps that are identification and aggregation. Identification is the process of defining a minimum level of nutrition necessary to maintain healthy living, i.e., defining the food security line for the population under study, below which households are classified as food insecured. (Omotesho et al., 2007). Aggregation on the other hand derived food security statistics for the households. Afsar (2015) checked household food security against a recommended minimum calorie requirement (i.e., 2122 kilo calories per person per day). In the present case, researcher follow a similar approach to measure the food security status based on the food security index that already have described in the methodology section.

The food insecurity gap measures the extent by which poor households are found insecure and the surplus index measures the extent by which food secure households exceeded the food poverty line. The head count ratio (H) measures the percentage of population of household that are food insecured or secured.

Following this procedures food security index, the head count ratio and the shortfall/surplus index have been summarized in Table 2 for indigenous households. The multiple indices were used to provide a basis for examining the extent of food security as well as food insecurity among the household from different perspectives. Table 2 indicates that on average food security index was 1.05 for food secure indigenous households meanwhile the value of this index for

Table 1. Socio demographic characteristics of the respondents

Variables	Categories	Frequency	Percentage (%)	Average
Age Group (Years)	Young (up to 35)	15	15.00	42.75
	Middle (35 to 50)	76	76.00	
	Old (>50)	9	9.00	
Literacy level	Illiterate 0	68	68.00	3.3
	Up to primary (0 to 5)	18	18.00	
	Up to secondary (6 to 10)	8	8.00	
	higher secondary and above(>10)	6	6.00	
Family Size	Small (2 to 3)	14	14.00	5.2
	Medium (4 to 6)	80	80.00	
	Large (> 6)	6	6.00	
Farm size	Landless (0 -0.02 ha)	63	63.00	0.23
	Small (0.02-1.01 ha)	37	37.66	
	Medium (1.01-3.03 ha)	0	0.00	
	Large (>3.03 ha)	0	0.00	
Family annual Income	Up to 40000 BDT	37	37.00	68000.74 BDT
	40001 to 60000 BDT	48	48.00	
	More than 60000 BDT	15	15.00	
Main Occupation	Agriculture	76	76.00	
	Small Business	6	6.00	
	Labour selling	17	17.00	
	Service	1	1.00	

Source: Field survey, 2017

Table 2. Food Security Indices for Sampled Household

Food security indices	**Food secure households**	**Food insecure households**	**Total Household**
Food security index	1.05	0.84	0.92
Percentage of households (%)	36.00	64.00	100
Per capita daily calorie availability (kcal)	2231.96	1790.30	1962.60
Surplus index (P)/ Food insecurity gap	0.05	-0.16	-
Head count index (H)	0.36	0.84	-

Source: Authors estimation based on field survey, 2017

insecure households was 0.84. Among the respondents only 36 percent households were food secure and obtained 2231.96 kcal per capita per day. Rest of the respondents (64 %) was food insecured.

The surplus index or food security gap showed that the food secure households exceeded the food poverty line by 5 %, while food insecure households fell short of the required calorie intake by 16 %. From above information it can be concluded that indigenous peoples in the study area on average were not able to meet the recommended calorie intake as 64 % of the selected households were food insecure and their (food secured and insecured households) average daily calorie intake was 1962.60 kcal per day per capita which was lower than the required calorie intake of 2,122 kcal.

3.3 Problems Faced By the Respondent in the Study Area

In the study area the financial condition of the indigenous people was very poor and their average income was lower than the national average income also (Table 1). Though agriculture was their main occupation, their cultivation practices had not improved over time and there was no

Table 3. Problems Encountered by the Indigenous People

SL No.	Problems	Number of respondents	Percentage of total
1.	Poor financial condition	87	87.00
2.	Problem of educational facilities	60	60.00
3.	Lack of Training facilities	75	75.00
4.	Lack of institutional credit facilities	57	57.00
5.	Problem of health facilities	62	62.00
6.	Geographical disadvantages	10	10.00
7.	Problem of pure drinking water	40	40.00

Source: Field survey, 2017

noticeable impact of modern agricultural technology. The main reason behind it was their miserable financial condition mentioned by the 87 % of the respondents (Table 3).

Along with lack of institutional credit facilities, 75 % of respondents agreed that lack of training was another problem. The situation of education and health were also vulnerable in the study area. The poor access to general food and nutrition, bad sanitary condition, unhealthy housing and poor access to safe drinking water were responsible factors for morbidity and mortality among the Santal (Dung and Pattanaik, 2013). It can be seen from the Table 3 that 62 % of respondents mentioned that they lacked access to health facilities when badly needed. Safe drinking water is the most essential feature for healthy human life. During the summer season poor households who do not have their own tube wells and wells, had to depend on the rivers for the drinking purpose.

Geographical disadvantages act also as impediments in their development. In most cases, these people lived in remote and inaccessible geographic areas that were isolated from the mainstream locality of the country (Hossain, 2013). According to data presented in table 3, 10 % respondent claimed it as a problem in the study area.

4. CONCLUSION AND POLICY IMPLICATIONS

The present study was conducted to assess the socioeconomic and food security status of indigenous Santal people as a means of whether they were food secured or not with their socio demographic profile in remote areas of Chapainawabganj district in Bangladesh. This study confirmed that most of the Santals lived in the study area were not able to access sufficient foods for their daily life. In terms of social and economic difficulties, these indigenous people could be considered as the most vulnerable groups in the country. As they mainly depended on the agricultural economy, the Santal were unable to meet their everyday requirements. Further, they had very limited access to credit, training facilities, housing, education, electricity, health and safe drinking water and so on. Proper government initiatives are needed to solve these problems. The concerned extension and NGO officials should, therefore, provide training on scientific cultivation of crops to the local Santal community for improving production efficiency and food security of the people. As the economic and financial conditions of the indigenous Santal people were very poor, NGOs and/or the financial institutions may provide sufficient amount of credit to the concerned peoples at a reasonable rate of interest under some easy terms and conditions. For the betterment of indigenous people, educational institutions and hospital should be made for them. Government should take necessary steps in order to ensure the education of the indigenous children.

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