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Socio-Economic Status of Vegetable Farmers in Char Region of Chapainawabganj

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ABSTRACT

This paper attempts to investigate the specific demographic characteristics and the overall socio-economic status of vegetable farmers in char region of Chapainawabganj. The study was conducted in four Chars (Islampur, Debinagar, Charanupnagar, Sundarpur) in Chapainawabganj Sadar Upazilla under Chapainawabganj district. Data were collected from 80 randomly selected respondents through face to face interview. The study was conducted during August 2018 to October 2018. This paper expressed that most of the vegetable farmers were middle aged, had mostly medium sized families and were mostly illiterate. Sixty percent of the farmers were dependent on farming and average vegetable farm size was 3.87 bigha. Among the sample about 42.5 % were marginal farmers while about 72.5 percent had medium level of farming experience. The majority of the vegetable farmers were not involved in any social organization. The annual income of vegetable farmers was found to the medium category ranging from 60,000 to 300,000 BDT. Most of the vegetable farmers had no extension contact which causes lack of knowledge on post-harvest technology. About 67.5 percent of the farmers were found to medium level of socio-economic status. Proper education and training can play an important role in improving the socio economic condition of the studied people.

Key words: Char, Demographic characteristics, Extension contact, Socio-economic status, Vegetable farmers

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1. INTRODUCTION

Bangladesh is predominantly an agricultural country with the sector accounting for 14.2% of the country's GDP and employing around 47% of the total labor force (BBS, 2018). The country is also a Riverine country and the largest delta of the world (Islam and Rashid, 2011). The natural setting of this country is between the Himalayas and the Bay of Bengal together with the prevalence of tropical monsoon climate (Rana and Nessa, 2017). The country is considered as the mercy of three major rivers i.e. the Ganges, the Bramaputra and the Meghna, altogether called as GBM basins (Bormudoi et al., 2011). The basins stretch over five countries like China, Nepal, India, Bhutan and Bangladesh (Mondal, 2011). They constitute about 1.65 million km^2 area of which only 7.5 % lies within the territory of Bangladesh (Sarker et al., 2003).

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Vegetables are very important group of crops and they constitute a major part of the diet contributing nutrients and vitamins. It is also highly profitable on the basis of its returns to investment (Mohiuddin et al., 2009). Vegetables are cultivated in only 1.8 per cent of the total cultivatable land in Bangladesh (BBS, 2018). Vegetable production in Bangladesh is characterized by low yields and seasonal availability, which lead to low per capita availability and widespread micronutrient deficiency (Ali and Hau, 2001).

Chapainawabganj is mainly a plain land with rivers. Most of the land is situated on riverine. The riverine sand and silt landmasses known as "Char" in Bengali are home to over millions of people in Bangladesh. Char communities are constantly under threat from both ecological and socio-economic disasters. Char dwellers are considered poorer than the main land population and are vulnerable to flooding Malnutrition and micronutrient deficiency rates are higher in the Chars than anywhere else the country. Food based strategies, including homestead food production through homestead vegetable production program not only increase food security but also have an impact on reducing micronutrient deficiencies and women empowerment as well as their economic security (HKI/IPHN, 2006). March and September are the most food insecure months and at that time the respondents borrowed money from money lenders, performed various other activities like rice husking, earth work, poultry rearing, begging, selling livestock and other assets, wood collection as major income generating activities. The respondents of the study area faced some problems regarding homestead vegetable production. Among the problems lack of capital, lack of irrigation water during dry period, lack of good quality seeds are most predominant (Hasan and Sultana, 2011). Diversification into vegetable crops and increasing commercialization can support the development of the agricultural sector in several ways. Commercialization is characterized by households moving from subsistence systems into semi commercial and commercial systems, thereby maximizing profits and generating surplus (Pingali and Rosegrant, 1995). Vegetables are increasingly recognized as essential for food and nutrition security. Vegetable production provides a promising economic opportunity for reducing rural poverty and unemployment in developing countries and is a key component of farm diversification strategies. Hence, the present study aims to assess the overall socioeconomic status of the vegetable farmers in the Char region of Chapainawabganj district.

2. MATERIALS AND METHODS

2.1. Location of the study

The locale of the study was Chapainawabgonj District of Rajshahi Division. Chapainawabganj is situated between the latitude 24'22 to 24'57 and longitude 87'23 to 88'23. Islampur, Debinagar, Charanupnagar, Sundarpur unions of Chapainawabgonj Sadar Upazila was purposively selected for the study because these unions are known as Char area.

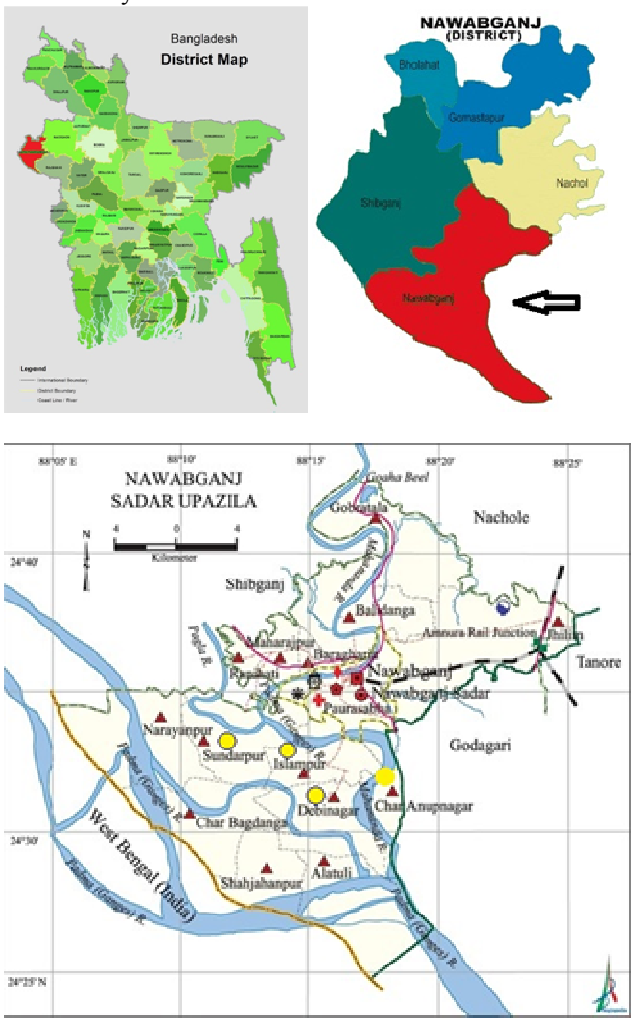

Fig. 1 Maps showing the location of study area.

2.2. Data collection procedure and analysis

The study was conducted in four char union (Islampur, Debinagar, Charanupnagar, Sundarpur) of Chapainawabganj Sadar Upazila. A list of all farmers was collected from the Upazila Agricultural Extension Office, NGOs and with the help of Sub Assistant Agriculture Officers (SAAOs). A sample of 80 vegetable farmers were selected randomly form ten villages of the selected unions. Data were collected through face to face interview using a pre structured questionnaire.

Statistical tests like frequency counts, percentage, mean, standard deviation were used for analysis and interpretation of data.

3. RESULTS AND DISCUSSION

3.1. Vegetable cultivation in char region

A total number of 27 vegetables were cultivated in the study area, among them 7 vegetables were widely cultivated

(Figure 2). Tomato was the mostly cultivated vegetable as highest 35.56 percent land was under tomato cultivation. Other vegetables were Cauliflower (9.11%), Pointed Gourd (8.46%), Brinjal (5.43%), Coriander Leaf (4.84%), Jute Leaf (4.18%) and Papaya (3.87%) cultivated respectively.

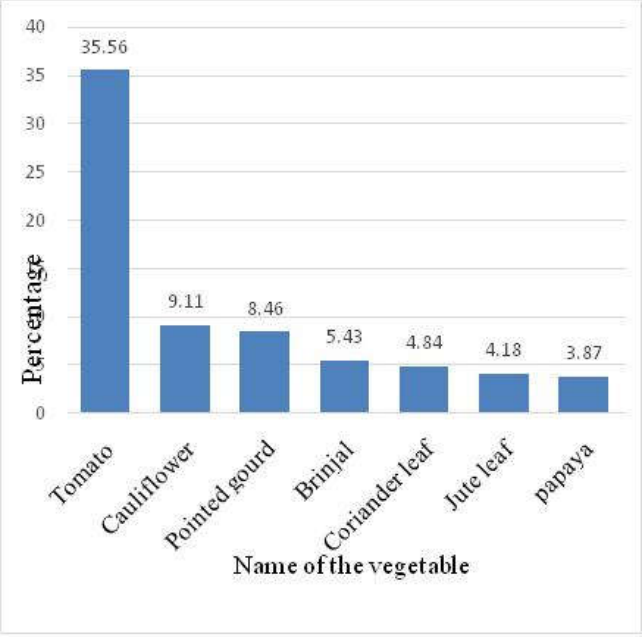

Fig. 2. A chart of top seven cultivated vegetables in the study area.

Table 1 Personal characteristics of the vegetables farmers.

Variable	Category	Frequency	Percentage
Age	Young (up to 24 years)	2	2.5
	Middle (25 to 54)	60	75
	Old (more than 55)	18	22.5
Gender	Male	68	85
	Female	12	15
Marital status	Married	74	92.5
	Unmarried	6	7.5
Family size	Small (less than 3 members)	2	2.5
	Medium (3 to 8 members)	68	82
	Large (more than 8 members)	10	12.5
Farm size	Low (less than 0.14 Bigha)	0	0
	Medium (0.14 to 7.60 Bigha)	74	92.5
	High (more than 7.60 Bigha)	6	7.5

3.2. Personal characteristics of the vegetable farmers

Data presented in table 1 shows that, the average age of the respondents were about 46 years where most of the farmers (75%) were under middle aged category and young and old aged farmers were 2.5 percent and 22.5 percent respectively. A total of 85 percent were male farmers and 15 percent were female farmers where 92.5 percent were married and 7.5 percent were unmarried. On an average, the respondent's family size was 6 where the amount of medium size family (3 to 8 members) was highest (85%) and small and large sized family was 2.5 percent and 12.5 percent respectively. The average vegetable farm size was 3.87 Bigha.

3.3. Socio-demographic characteristics of the vegetable farmers

Table 2 shows that, most of the farmer's habitations were either Tin shed House or Brick Built types which were observed to the extent of 37.5 percent separately, followed by 25 percent Clay built category. The average land holding of the respondents was 0.374 ha. Highest number of farmers (42.5%) was under marginal category. Landless, small, medium and large category farmers were 35 percent, 17.5 percent, 5 percent and 0 percent respectively.

Income is the most important indicator of the socio-economic status of the people living in rural area of Bangladesh. Average annual income of the respondent households has been estimated from the earnings of all active members of the family from various income generating activities during the study period. The average annual family income of the respondents was 182,075 BDT. The annual family income of 77.5 percent vegetable farmers were found in the medium category ranging from 60,000 to 300,000 BDT followed by 10 percent vegetable farmers in low family income category (upto 60,000 BDT) and 12.5 percent vegetable farmers in high family income category (more than 3,00,000 BDT). This study also indicates that, out of 80 vegetable farmers about 60 percent were dependent upon farming as a sole profession, whereas 27.5 percent, 7.5 percent and 5 percent vegetable farmers were involved on farming and business, farming and wage earning and farming and service respectively.

The educational status of the respondents was classified into (i) Illiterate (ii) Primary (iii) Secondary (iv) Tertiary level of education. The educational status of the vegetable farmers is presented in Table 2. Majority of the vegetable farmers were illiterate. About 42.5 percent of the vegetable farmers were illiterate followed by primary school level (27.5%), secondary level (27.5%) and tertiary level (2.5%) of education. Farming experience shows the number of years the farmer has spent in agricultural and allied farming. For measuring the variable, open response from farmers was recorded. The majority of vegetable farmers (72.5%) had medium level of farming experience followed by high level (20%) and low level (7.5%). A total of 60 percent of the vegetable farmers were maintaining their own expenditure and 40 percent were cultivated by taking loan.

Table 2. Socio-demographic characteristics of the vegetable farmers.

Variable	Category	Frequency	Percentage
Housing Pattern	Clay Built	20	25
	Tin shed House	30	37.5
	Brick Built	30	37.5
Land holding	Landless (below 0.2 ha)	28	35
	Marginal (0.21 to 0.6 ha)	34	42.5
	Small (0.61 to 1 ha)	14	17.5
	Medium (1.1 to 2.5 ha)	4	5
	Large (above 2.5 ha)	0	0
Annual family income	Low (less than 60000 BDT/year)	8	10
	Medium (60000 to 300000 BDT /year)	62	77.5
	High (more than 300000 BDT /year)	10	12.5
Occupation	Farming as sole Profession	48	60
	Farming and Business	22	27.5
	Farming and Wage earning	6	7.5
	Farming and Service	4	5
Education	Illiterate	34	42.5
	Primary	22	27.5
	Secondary	22	27.5
	Tertiary	2	2.5
Farming Experience	Low (Up to 4 Year)	6	7.5
	Medium (4 to 27)	58	72.5
	High (Above 27)	16	20
Credit for cultivation	Own	48	60
	Loan	32	40
Social Participation	Not a member of any organization	50	62.5
	Members of one organization	24	30
	Members of two organizations	6	7.5
	Member of more than two organizations	0	0
Use of transportation	No	12	15
	By Bi-cycle	2	2.5
	By Van	26	32.5
	By Boat	12	15
	Bullock cart	2	2.5
	Tractor	4	5
	Truck	22	27.5
Extension contact	Present	32	40
	Absent	48	60
Post-harvest technology	Adopted	34	30
	Not adopted	56	70

The use of transportation means the vehicles which farmers use to transport their vegetables from field to market. The study indicated that the majority of the vegetable farmers (32.5%) used van for transportation followed by truck (27.5%), boat (15%), tractor (5%), Bi-cycle (2.5%) and bullock cart (2.5%) respectively. The study also showed that 15 percent farmers did not use any type transportation, they sold their product directly from field. About 62.5 percent of vegetable farmers were not involved in any organization followed by 30 percent were involved in one organization and 7.5 percent were involved in two organizations. Extension contact means any kinds of information or help taken from any agricultural extension organization or NGOs by the farmer. This study showed that the majority (60%) of vegetable farmers had no contact with any extension officers resulting in lack of agricultural awareness and 40 percent farmers had extension contact. Post-harvest handling is the stage of crop production immediately following harvest which includes cooling, cleaning, sorting and packing. In the study most of the vegetable farmers (70%) did not adopt any post-harvest technology and 30 percent of the total farmers adopted post-harvest technology.

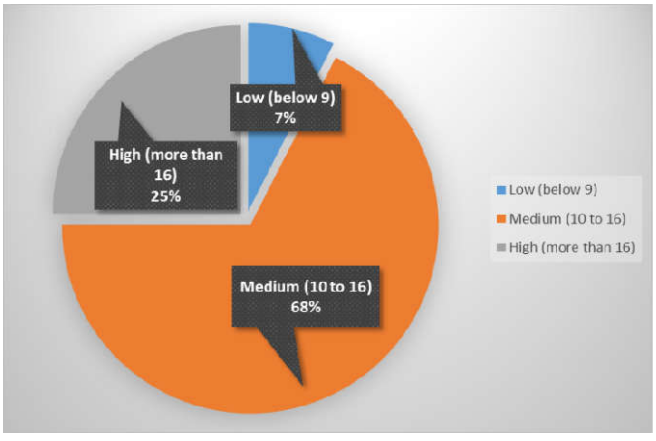

Fig. 3. Distribution of vegetable farmers according to overall socio-economic status. Mean=13.8, SD=3.00.

3.4. Overall socio-economic status

Different parameters were used to analyze the socio-economic status of vegetable farmers (Fig. 3). Those parameters were education, income, social participation, occupation, land holding, transportation medium, family size, housing pattern and credit for cultivation. We fixed different score for different parameter and calculated the total score. The socio-economic status of vegetable farmers were classified into three categories such as low, medium and high by using on the basis of total score, mean score and standard deviation (Pareek and Trivedi, 1964).

Figure 3 indicated that the majority (68%) of vegetable farmers were contained under medium level of socio-economic status where low and high category farmers were 7 and 25 percent respectively.

4. CONCLUSION

Vegetable farming in rural communities is a great source of employment, it helps in food security. Tomato was found as the most cultivated vegetable in the area. In this study most of the vegetable farmers were male, married and middle aged. They belonged to medium size family and most of them were illiterate with medium annual income having medium farm size. Most of the farmers were engaged to farming with marginal land holding and medium farming experience. Majority of them used their own credit for cultivation and they had little extension contact since most of the respondents were not involved in any social organization. They used van as their transportation mostly and adoption of post-harvest technology was absent among most of them. The overall socioeconomic status of the respondents was medium which urges more development initiatives in the area.

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