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Food Security Situation and Alternative Livelihood Opportunities for Ultra Poor Farming Households of Haor Area

M. Hammadur Rahman[1]

Abstract

The paper aims at assessing food security situation and livelihood opportunities existed for the ultra poor farming community in a typical haor area of Kishoreganj district. In addition, food security strategies followed by the farmers during the crisis period and their opinion on poverty alleviation strategies are also discussed. The study was carried out at two villages under Itna and Tarail upazilas of Kishoreganj district. Apart from participatory method, quantitative data were also collected from a sample of 150 ultra poor farmers by using interview schedules during the months of August to October 2009. The seasonal diagramming revealed that ultra poor farmers of the hoar area faced chronic food insecurity during the months of February to April and August to October. Their livelihood opportunity remained limited during the period of inundation, i.e., from May to October. Of the 18 food security strategies, three were found followed by the farmers with more severity, while five and ten strategies being followed with moderate and low severity. The characteristics of the respondents revealed that the ultra poor farmers of the haor area had almost no or very limited human and physical resources for sustaining their livelihoods. The farmers also made a number of opinions on how the government and other concerned agencies can undertake some realistic programmes towards alleviation of abject poverty situation.

Key words: *Food security, livelihood opportunity, ultra poor farmers, haor area*

Introduction

The large inland depression commonly known as the *haor* basin is located in the north-eastern part of Bangladesh. The large saucer shaped basin covering an area of 8,000 sq km is the largest single inland depression in the country and derives its name from the multitude of large lake like fluvial features known as *haors*. There are 47 major *haors* in the *haor* basin (Ali, 1990). Such *haors* are less than five meters above sea level. As a consequence, seasonal flooding is very deep and large area stay wet throughout the dry season. It is a mosaic of wetland habitats including rivers, streams and irrigation canals, large area of seasonally flooded cultivated plains and hundreds of *haors* and *beels*. This zone contains about 400 *haors* and *beels* varying in size from a few hectares to several thousand hectares (Alam and Chowdhury, 2007).

The ecology of *haor* areas is different from other parts of Bangladesh. People of the *haor* areas have to fight against all natural calamities like floods, storm, river erosion, etc. Moreover, the majority of the *haor* residents are living below the poverty line. A major part of a year (about 7-8 months), the whole *haor* area goes under water. There remain only limited livelihood options for the haor people at the time of inundation. During the recession of water at the onset of dry season, moderate to severe river bank erosion cause a huge threat to the houses and shelter of the people. A single disaster like early flood and tornado cause long-term damage to the livelihoods of the poor haor people. As a region of limited

[1]Professor, Dept. of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh

livelihood opportunity and disaster-proneness, food insecurity is a common phenomenon for the poor people of the haors. In particular, the ultra poor of the area are the worst victim of the seasonal shocks and disasters. As no study is available on food security situation of the ultra poor farmers in the haor area as well as their alternate livelihood opportunity, a study was undertaken to fulfil the research gap in these issues. The following objectives were set forth for the study: (i) determining the food security situation and livelihood opportunities of the ultra poor farming households of the haor area, (ii) determining the food security strategies followed by the ultra poor farmers in the crisis period, (iii) determining the characteristics of rural ultra poor households in flood prone regions, and (iv) suggesting on suitable alternative livelihood options of the ultra poor in the haor region.

Methodology

Locale of the study: The study was conducted in two upazilas of the Kishoreganj, a typical haor district of the country. Itna upazila is located in a deep haor region, while the Tarail upazila locates in the fringe of haors. Data for the research work were to be collected from ultra poor farming household members of these two selected upazilas. Considering the suitability of the study objectives and after consultation with the key-informants of the locality, Damiha village under Tarail upazila and Madhyagram village under Itna upazila were selected the specific study areas.

Population and sample of the study: For the research work, a working definition of ultra poor was developed to select the study population and sample. In a slight modification of the definition used by BRAC's Targeting Ultra Poor Programme (Matin, 2005; Yasmin, 2007), the households were selected as ultra poor were those who (i) owned total land less than 10 decimal, (ii) had no productive assets, (iii) was dependent upon physical labour of the male or female domestic work or begging, (iv) did not have other adult active members in the household, and (v) might have school aged children who were selling labour. Apart from these five mentioned criteria, a farmer was considered ultra poor if she/he had no own land (or less than 10 decimal) and lived on only sharecropping (borga) of other's land (but land under borga didn't exceed 50 decimal). Following the above-mentioned criteria, a total of 259 (110 and 149 in the selected villages of Tarail and Itna upazilas respectively) ultra poor farming households were identified as the population of the study. Among the population, 150 ultra poor farmers (100 from Tarail and 50 from Itna) were selected as the sample of the study. Population sample was drawn in Tarail and random sampling was done in Itna upazila.

Measurement of variables: Food security situation along with flood situation and livelihoods opportunity of the farmers in the study area was determined by seasonal diagramming. Food security strategies followed by the farmers was measured by constructing a 4-point rated scale. Eighteen strategies were finally selected through literature review, consultation with a number of key-informants and pre-testing of the scale. The coping strategies were arranged in a 4-point continuum (frequently, less frequently, rarely, not at all) in order to perceive a respondent's extent of practice of the strategies. Farmers' opinion regarding alternative livelihoods were understood by the frequency count.

Data collection: Both qualitative and quantitative methods of data collection were employed. A personal interview schedule (structured questionnaire) was used to collect data from the selected respondents under the sample of the study. Besides the questionnaire survey, qualitative methods such as focus group discussion and seasonal diagramming were used for collection necessary information from the respondents. The data were collected from April through September, 2009.

Results and Discussion

Food Security and Livelihood Opportunity of the Farmers

In order to understand overall situation of the study areas regarding flood situation, livelihood opportunities of the people and their food security status throughout the year, two seasonal calendars have been prepared and presented in tables 1 and 2.

The seasonal calendars show that although the flood periods of the two areas were almost same, the ultra poor farmers of Itna (a typical and deep haor area) had relatively less livelihood opportunities than those of Tarail upazila, which is actually located in the fringe of hoar regions. As the haor area remains inundated in 6-7 months a year, the ultra poor farmers of this area had to stay at home without having locally available jobs. The situation was seen more severe in Itna upazila than in Tarail upazila.

Food Security Strategies of Ultra Poor Households

The ranking of ultra poor farmers' food security strategies on the basis of the obtained severity scores have been presented in Table 3.

Data presented in Table 3 clearly show that, during the crisis period, the ultra poor farmers in the haor area mainly depended on low cost food consumption or reduced the amount of food either by amount or by number of meals. Alternately, they had to borrow food or money from other people or money-lending NGOs. Sometimes they had to migrate to other areas to earn livelihoods during the period of inundation. These major types of food security strategies are learnt to followed by the vulnerable farmers in other areas as reported by Abrar and Azad (2004), Maxwell and Caldwell (2008) and Paul and Routray (2010) in their respective studies.

Characteristics of the Ultra Poor Farmers in Haor Area

Salient features of the selected characteristics of the ultra poor farmers in the haor have been presented in the Table 4.

Table 1 Seasonal calendar of flood situation, livelihood opportunity and food security situation of ultra poor farmers in the haor area of Itna

Months (Bengali)	Baishakh	Jaisthtya	Asharh	Shraban	Bhadra	Ashwin	Kartik	Agrahayan	Poush	Magh	Falgun	Caitrya
Months (Gregorian)	Apr-May	May-Jun	Jun-Jul	Jul-Aug	Aug-Sep	Sep-Oct	Oct-Nov	Nov-Dec	Dec-Jan	Jan-Feb	Feb-Mar	Mar-Apr
Flood situation (single dot=low, triple dot=severe flood)	●	●	●	●●●	●●	●	●	-	-	-	-	-
Livelihood opportunity (single dot=low, triple dot=high opportunity)	●●●	●●	-	-	-	-	●	●	●●●	●●	●	●
Food security status (single dot=low, triple dot=severe crisis)	●	●	●●	●●	●●	●●	●●●	●	●	●	●●●	●●●

Table 2: Seasonal calendar of flood situation, livelihood opportunity and food security situation of ultra poor farmers in the haor area of Tarail

Months (Bengali)	Baishakh	Jaisthtya	Asharh	Shraban	Bhadra	Ashwin	Kartik	Agrahayan	Poush	Magh	Falgun	Caitrya
Months (Gregorian)	Apr-May	May-Jun	Jun-Jul	Jul-Aug	Aug-Sep	Sep-Oct	Oct-Nov	Nov-Dec	Dec-Jan	Jan-Feb	Feb-Mar	Mar-Apr
Flood situation (single dot=low, triple dot=severe flood)	●	●	●●	●●	●●	●●	●	-	-	-	-	-
Livelihood opportunity (single dot=low, triple dot=high opportunity)	●●●	●●	●	●	-	-	●	●	●	●●	●	●
Food security status (single dot=low, triple dot=severe crisis)	●	●	●●	●●●	●●●	●●	●●	●●	●	●	●●	●●

Table 3 Ranking of food security strategies followed by the ultra poor farming households on the basis of severity scores

Rank order	Food security strategies	Mean severity score (Possible range: 0-3)
1	Relying upon less expensive or less preferred food items	2.96
2	Limiting/reducing amount of food per meal	2.92
3	Reducing number of meals per day	2.80
4	Reducing adult consumption so children can eat	2.09
5	Purchasing/borrowing food on credit	2.01
6	Borrowing money from NGOs/GB	2.21
7	Borrowing from moneylenders	2.10
8	Migrating to city or other area for seasonal labour selling	1.12
9	Relying on unusual/casual labour for food	0.45
10	Discontinuance of children's education for saving money	0.79
11	Selling cattle/livestock	0.77
12	Spending money from deposit	0.74
13	Borrowing money or food from friends/relatives	0.73
14	Relying on help from relatives and neighbours	0.43
15	Household members' eating at relatives or neighbours	0.35
16	Selling advance labour	0.34
17	Involving family members in income generating activities	0.15
18	Selling land and other assets	0.03

Table 4: Salient features of the selected characteristics of the ultra poor farmers

Characteristics	Measuring unit	Observed range	Mean	SD
Age	Years	16-80	40.28	15.18
Education	Year of schooling	0-10	1.33	2.48
Family size	Number	1-9	4.86	1.68
Local orientation	Year	1-40	19.43	6.78
Farm size	Hectare	0.01-0.482	0.03	0.11
Organizational participation	Scale score	0-11	0.95	1.81
Annual Family income	'000' Tk	14.32-48	42.14	11.75
Extension media contact	Scale score	0-24	5.30	3.62
Cosmopoliteness	Scale score	0-9	2.82	1.56
Training exposure	Days	0-5	0.26	0.91

Data presented in Table 4 indicates that the farmers were relatively younger with the average age of 40.28 years. The average education level was found very low and family size was moderate. Average local orientation was reported as 19.43 which indicated that they had to migrate more than once a lifetime mainly due to river erosion. As understandable their farm size was very small and income was very low. The farmers received very low level extension contact and training exposure which indicated that need-based extension service was absent for the ultra poor farmers in the haor area. Low organizational contact score and cosmopoliteness scores were also testimony of their backwardness.

Alternative Livelihood Activities for the Ultra Poor Farmers

The ultra poor farmers in the study areas were asked to give their opinion on how the government programmes could help them alleviate their abject poverty situation. They expressed their opinion on a number of selected measures. The items were selected by consulting with a number of experts, field level officials and local leaders. The results have been shown in Table 5.

Table 5: Opinion of ultra poor farmers regarding various measures for improving their livelihood opportunities

Sl. No.	Measures for alleviating poverty	Citation (%)
1	Creating round the year employment opportunities by establishing industries and increasing commercial activities	97
2	Expanding opportunities for work under the social safety net programmes such as food for work (throughout the shock season)	94
3	Creating income generating opportunities for the ultra poor providing need-based skill training, interest free (or low interest) micro-credit, technological support and market support	95
4	Creating income generating opportunities for ultra poor women families so that they can earn by staying in their locality	91
5	Allocating *khas* land (government owned land) for ultra poor farmers so that they can increase their production	100
6	Providing subsidy for agricultural inputs such as seeds, fertilizers and irrigation	100
7	Securing fair price of agricultural products	100
8	Improving law and order situation and eliminating all forms of illegal activities in the locality	68
9	Provision of technical support from extension services for small scale homestead farming and livestock rearing	83
10	Provision of control of water bodies for fishing by the genuine fishermen	79

Data presented in the Table 5 indicate that majority of the respondents wanted to get rid of poverty by utilizing better livelihood opportunities. It was interesting to note that the ultra poor farmers did not like to have permanent dependency on help and relief; rather they opted for creating long term job and livelihood

opportunities, while they looked for support from the government only when they faced the seasonal shocks and disasters.

Concluding Remarks

The findings of the study indicate that majority of the farmers in the *haor* areas were usually vulnerable to different types of seasonal shocks and disasters mainly due to the special geographical condition of the region. It could be concluded that without strengthening the capacity of farmers in *haor* in terms of their livelihoods and farming, they would not be free from any form of vulnerability of permanent inundation. The existing social safety net programmes are not the effective solution of their poverty. The Government should undertake specific poverty reduction programmes for ultra poor in the haor areas. Such programmes should include encouraging the private entrepreneurs to establish factories and business in vulnerable areas instead of Dhaka and big cities, initiating special programmes for income generation (training, microcredit, advisory service and marketing opportunity) in collaboration with the NGOs, distribution of khas land (governemtn owned land) and water bodies among the community based organizations of ultra poor farmers and fishermen, undertaking special poverty reduction programmes in haor areas like monga prone, charland and coastal areas, working with NGOs and other organizations towards fair distribution of social safety net benefits, promoting appropriate agricultural technologies for resource poor farmers etc.

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