

Livelihood and food security status of fishers community in the northern districts of Bangladesh

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ABSTRACT

The present study was carried out to assess the livelihood and food security status of fishing community in the northern districts from February to June, 2010. Participatory Rural Appraisal (PRA) tools such as Focus Group Discussion (FGD) and Crosscheck Interviews (CI) with key informants were used to collect the information. Most of the respondents (fisher and non-fisher) were belonged to the age group of 30 to 45 years (50.0%) represented by 87% Hindus. Again most of the respondents had medium to small families. Small family (<4 members) was higher in non-fisher (57.9%) than in fisher (47.1%) households. But medium family (4-6 members) was higher in fisher (45.6%) than in non-fisher (37.6%) households. Most of the fishermen were illiterate (75%). Small portion of them can sign only. Only 20% and 5% of fishers had primary and secondary level education respectively. The main income source of fishers was fisheries (71.4%). Agriculture contributed only 7.4% to the family income of fishers, whereas contribution of agriculture to non-fishers' family income was 50.1%. About 38% of fishers and 30% of non-fishers earned less than Tk. 70/day. Around 40% of fishers and 43% of non-fishers were medium category income (Tk.70-140/day) earners. Respondents getting more than Tk. 140/day were only 7.3% in fishers and 14.0% in non-fishers. In the study area 38.0% of the fishers and 15.7% of the non-fishers were under extreme form of poverty—they were in chronic food deficit situation. On the other hand, 37.2% of the fisher households and 32.0% of non-fisher households were in occasional food deficit. Fishing was more associated with food insecurity and poverty. In the study area health facilities of the fishers community was very poor. Fishers struggled for their livelihood. They always did not get access to adjacent water bodies and their access was limited. They were neglected in all respect in the society. Generation after generation they remain illiterate and are not able to contribute for the betterment of their community.

Key words: Fisher, livelihood, Monga, constraints.

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INTRODUCTION

Fish and Fisheries sector play an important role on the socio-economic development of Bangladesh from time immemorial and it is the part of our cultural heritage. This sector has a great contribution in national GDP (3.74%), foreign remittances (2.7%) and in the national animal protein consumption (58%) (DOF, 2011).

Fisheries sector of Bangladesh creates the opportunity of direct and indirect livelihood of about 12 million people (DOF, 2011).

Fishermen are deprived of many amenities of life and consisted as one of the most vulnerable communities in Bangladesh. Over the years, their economic condition had further deteriorated. Their average per capita annual income is BDT 2,442

i.e., about 70% lower than the per capita income of the country as a whole (Alam and Bashar, 1995).

Livelihood can be defined as the capabilities, the assets (natural, physical, human, financial and social capital), the activities and the accesses to these (mediated by institutions and social relations) that together determine the living gained by the individual household (Chambers and Conway, 1992). According to them, a livelihood can be sustainable when it has the ability to cope with and recover from stresses and shocks and maintain or improve its capabilities and assets both now and in future, but not undermining the natural resource base. For sustainable development and poverty alleviation, different approaches had been adopted and the sustainable livelihood approach had been gradually expanded with its own core and principles for poverty focused development activities (DFID, 1998). A sustainable livelihood is based on the development to improve the progress in poverty elimination by assessing the appropriate objectives, scope and priorities (Scones, 1998).

There are a lot of beels, floodplains and rivers in the northern districts of Bangladesh with much aquaculture potential. These flood fisheries play an important role in alleviation of rural poverty and supplying food to the poor fishing community. However, socio-economic status of these fishermen is not satisfactory; production of fish in this river is also declining day by day. Considering the above facts, the present study was carried out to assess the livelihood and food security status and constraints faced by the fishermen in the area.

MATERIALS AND METHODS

Study area

The present study was carried out on the fishermen community in three selected locations under Rangpur, Kurigram and Lalmonirhat districts of Bangladesh during the period between 20 February and 19 June, 2010 (Table 1).

Collection of data

The study was based on collection of primary and secondary data. Before collecting the primary data,

a draft questionnaire was developed which was pre-tested with a few fishermen. In the pre-testing, much attention was given to any new information in the draft questionnaire in order to reach the objectives of the study. According to the experience gained in pre-testing, the final questionnaire was improved, rearranged and modified. The final questionnaire was semi-structured so that interviewees had a wide scope in answering questions, thus allowing any topics of interest to be elaborated upon. Fishers of those communities were told that the purpose of the study was to find out about their present livelihood and food security status and to identify the alternative livelihood opportunities available in the northern districts of Bangladesh. Primary data were collected through household survey using multiple methodological Participatory Rural Appraisal (PRA) tools such as Focus Group Discussion (FGD) and Crosscheck Interviews (CI) with key informants. Thus, 274 fishers and 178 non-fishers were interviewed on the random selection basis at three different fishers' communities which were mentioned in Table 1. Fishermen were interviewed at home and/or fishing sites. In a given day approximately 5 to 7 interviews were conducted. Interview of a fisherman required about an hour. After collecting of data through questionnaire interviews and FGD the information was further discussed and justified with the key informants and fishers' association. Cross-check interviews were conducted with key person such as, Upazilla and District level Personnel of Department of Fisheries (DoF), Ministry of Land, and also Ministry of Youth and Sports. The interviews of respondents were conducted in their office.

Data analysis

All the collected information were summarized and scrutinized carefully and recorded. Finally, they were analyzed by MS-Excel and then presented in textual, tabular and graphical forms in accordance with the objectives of the study.

Table 1
Study locations and number of respondents.

District	Upazilla	CPW	Village	Fisher	Non-Fisher
Rangpur	Pirgachha	Masankura	Nijpara,	73	56
		Moranodi	Kabila para		
Lalmonirhat	Lalmonirhat	Ratnai Nodi	Kulaghat,	106	51
	Sadar		Khatamari		
Kurigram	Kurigram	Dasherhat	Polasbari,	95	71
	Sadar	Charra	Cherenga		
Total				274	178

RESULTS AND DISCUSSION

Religion and age of respondent

Hindus were featuring as the absolute majority of the fishermen in the study areas. About 87 % and 13% riverine fishermen were Hindus and Muslims respectively. Different categories of age groups such as <30 years, 30-45 years (middle aged) and >45 years were considered. In case of both fishers and non-fishers, majority of the respondents in this

study were middle aged (30-45 years). About 49% of the fishers and 51% of non-fishers were of middle age (Table 2). Twenty seven percent (27%) of fishers and 25.3% of non-fishers were of >45 aged. Twenty four percent (24%) of fishers and 23.6% non-fishers were <30 years of age. That is, most of the respondents fell into the active-age category. Ali et al. (2009) found that most of the fish farmers (50%) belonged to age group of 31 to 40 years in Mymensingh district which more or less agreed with the present findings.

Table 2
Distribution of fishers and non-fishers respondents according to age groups.

Age group	Fisher		Non-fisher	
	No. of respondent	%	No. of respondent	%
<30 Years	66	24.1	42	23.6
30-45 Years	134	48.9	91	51.1
>45 Years	74	27.0	45	25.3

Family size

The family size of the fishermen was divided into three classes as small, medium and large. From this study it was found that most of the respondents had medium to small families (Figure 1). Number of small size family (<4 members) was higher among non-fisher (57.9%) than fisher (47.1%) households. But the number of medium size family (4-6 members) was higher in fisher (45.6%) than in non-fisher (37.6%) households and also large family was higher in fisher (7.3%) than in non-fisher (4.5%) households. But Kabir et al. (2012) found different results in the fishermen of the old Brahmaputra river area. He reported that most of the fishermen (60%) families were composed of 5 to 6 members, marked as medium family followed by large family (30%) and small

family (10%). Ali et al. (2009) found that most of the fish farmers (45%) belonged to the 4 to 5 member's family in Mymensingh district and again 60% fishermen families were jointed and 40% of families were nuclear in this district.

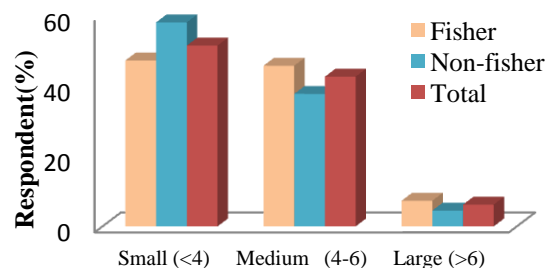


Figure 1
Distribution of the respondents according to family size.

Education

Most of the fishermen were illiterate (75%). Small portion of them can sign only. Only 20% and 5% fishers had primary and secondary level education respectively. Only 2.8 % respondent from non-fishers had education above secondary level, whereas none of the fisher respondents had education above secondary level. The present study is in accordance with the study of Rahman (2001) who reported that 68% of hoar fishermen were illiterate, 28% up to primary level and 4% had only secondary level education.

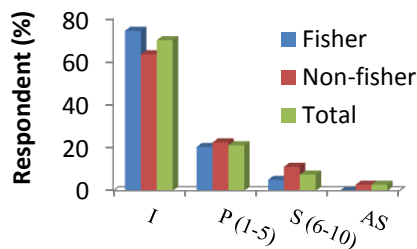


Figure 2
Distribution of the respondents according to education (I- Illiterate; P- Primary; S- Secondary; AS- Above Secondary).

The study revealed that in the education status of fishers community is poor compared to non-fishers. Education is the prerequisite for development. The government and non government policies for livelihood improvement can be properly implemented if the education status of fisher’s community is increased.

Sources of income

It was found in study area that agriculture contributed only 7.4% to the family income of fishers, whereas contribution of agriculture to non-fishers’ family income was 50.1% (Table 3). The main income source of fishers was fisheries (71.5%). Income from wage labor was low in fishers compared to non-fishers. Basically fishers did not receive wage labor even though income from fishing was low. But, Kabir et.al (2012) found somewhat different results in case of sub-sectoral total family income of fishermen around the old Brahmaputra river area. He reported that

income from fisheries, agriculture, wage labor and small trade was 55.56%, 25.93%, 7.40% and 11.11% respectively.

Table 3.
Share of different sub-sectors to total family income (%).

Sl. No.	Sector	Income (%)	
		Fishers	Non-fishers
1	Agriculture	7.4	50.1
2	Fisheries	71.5	5.2
3	Wage labor	13.0	30.2
4	Small business	2.5	8.4
5	Others	5.6	6.1
Total		100	100

Occupational Status

Most of the fishermen of study area were involved in fishing as their main occupation. Some were engaged in agriculture and day labor. Among the fishers, 85.0% were professional that means they are completely depended on fish capture and selling for their livelihood and 11.7% were seasonal who generally caught fish only in the peak season of fishing (Figure 3). In the lean fishing season, they had to find alternative livelihood, as the return from fishing was very minimum to ensure their living. Only 3.3 % were subsistence fisher involved in fishing for their personal consumption or traditional/ceremonial purposes.

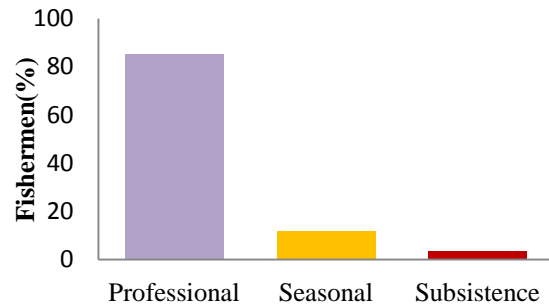


Figure 3
Types of fishermen in the study area.

Daily family income

In general, people in the study areas are poor. Daily per capita income was less than Tk. 70 (Figure 4). About 38% of fishers and 30% of non-fishers earned less than Tk. 70/day. Around 40% of fishers and 43% of non-fishers were medium category income earners. According to the World Bank redefined poverty line as an income of \$1.25 (Tk 100)/day per person, the proportion of respondents falling below poverty line was higher. Respondents getting more than Tk. 140/day were only 7.3% in fishers and 14.0% in non-fishers. The average annual household income of fishers in Mymensingh was BDT 42000 (Ali et al. 2009; Alam et.al 2009). However the study demonstrated that fishers were in worse position in respect to income compared to non-fishers.

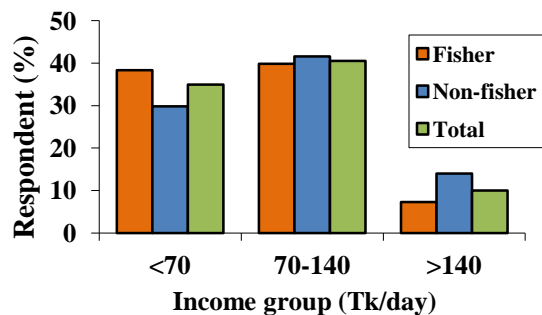


Figure 4. Distribution of the respondents according to family income.

Food intake

Average consumption of some selected food items is shown in the Table 4. Weekly rice consumption was higher in non-fishers than fishers. Fishers could consume more fish than non-fishers; because, fishers kept some small and less dominant fishes for their own consumption. In Bangladesh, the share of cereal intake is much higher than the desirable level (465 g versus 372 g). Desirable food intake from animal sources is 126 g (it should cover 5% of total energy requirement), while the actual intake is 60 g (less than half of the required quantity) (Ahamsul 2001).

Table 4. Food consumption by fishers and non-fishers families *.

Sl. No.	Food Item	Amount of food intake(Kg/week/family)	
		Fishers	Non-fishers
1	Rice	11.12	13.23
2	Fish	0.92	0.43
3	Meat	0.22	0.36
4	Milk	0.22	0.74
5	Vegetables	2.51	3.56

*Average family size: Fishers 3.96; Non-fishers 3.66

In the study area 38.0% of the fishers and 15.7% of the non-fishers were under extreme form of poverty that they were in chronic food deficit situation (not regularly having three meals a day). But the highest proportion of households who were in extreme poor came from the fisher households. On the other hand 37.2% of the fisher households and 32.0% of non-fisher households were in occasional food deficit (sometimes having less than three meals a day). The families with chronic food deficit were mainly from landless group. They also took up occupations such as fishing, non-agricultural and agricultural labor selling. However, in the study areas fishing was more associated with food insecurity and poverty.

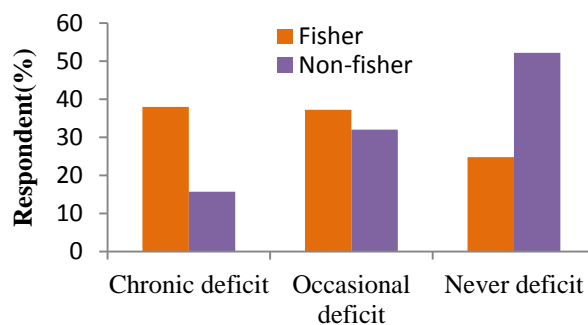


Figure 5 Food intake status in study area.

If we consider the 3 meals/day round the year as an indicator of food security status (Rahman et.al, 2013), then only 24.8% of fishers and 52.2% of non-fishers were secured in the study area. According to the Welfare Monitoring Survey 2009 (BBS 2009) majority of the population in Bangladesh has food security, while 39.8% population are in insecure. So, the food security status was worse in the study area compared to national average.

Health Facilities

In the study area health facilities of the fishers community was very poor and 80% of the households were dependent on village doctors who did not have any knowledge on health science, 18% of the fishermen got health service from Upazilla health complex and remaining 2% got health service from specialist doctors which was more or less similar to the findings of Kabir et. al (2012) and Ali et al. (2009).

Problem associated with fishermen

Fishers struggled for their livelihood. They always did not get access to adjacent water bodies and their access was limited. In the market most of the fishermen faced various problems during fishing and marketing their goods. The main problem was recognized as extortion by the local extortionist, other problems were inadequate credit facilities, lack of marketing facilities, lack of knowledge of fishing, lack of appropriate fishing gears and disturbances by local influential people. Most of the fishermen were very poor and they had limited resources to buy nets and other fishing equipments. They were neglected in all respects in the society. Most of them were illiterate and lived from hand to mouth. Being very poor their children often went for fishing rather than going school. As a result, generation after generation they remained illiterate and not being able to contribute for the betterment of their community.

CONCLUSION

The fishers were always deprived of many amenities. The education level of the fishers was so poor. Due to the lack of awareness as well as the poor income of the fisher's families they cannot improve the education status at all. Educational facilities and easy access to educational institute is therefore necessary to improve the educational status of fisher's community. Government should take necessary steps by taking some sorts of management policy as well as some extra providence during the ban season of the fishing. Alternative source of income should be introduced in the poor fisher's community so that they can gain financial support outside of fishing. Social Safety Nets programs

such as Food for Work (FFW), Cash for Work (CFW), Vulnerable Group Development (VGD) and Vulnerable Group Feeding (VGF) must be ensured. Due to economic constraints fishermen were not capable to buy their main instruments (e.g. boat, net, etc.). Government and other agencies should take necessary steps to provide support or loan to the poor fishers for buying their fishing instruments. Special training program should be arranged and health facilities should be increased. After all the fishing sector should be promoted in order to get better contribution from this sector to the national economy.

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