

Livelihood Status of Fishermen of the Old Brahmaputra River, Bangladesh

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Abstract: The present study was conducted to assess the livelihood status of fishing community of the old Brahmaputra River from April to August, 2010. Data were collected through the use of well-structured questionnaire from the selected area. Most of the fishermen were belonged to the age groups of 31 to 40 years (50.00%), represented by 95% Muslim. Over 70% of the fishermen primary occupation was fishing, 20% was engaged in agriculture and 10% in daily labour activities. About 2% of the fishermen were only could write name while 88%, 10% and 0% of the fishermen were illiterate, primary and secondary level of education respectively. About 60% of the fishermen received health service from village doctors, 30% from *upazila* health complex and remaining 10% got health service from MBBS (Medicinae Baccalaureus, Baccalaureus Chirurgiae) doctors. About 60% of the fishermen used *kancha* while 10% used semi-*paka* and 30% of the fishers had no sanitary toilet facilities. Around 40% fishermen used their own tube-well, 50% used shared tube-well and remaining 10% used neighbors tube-well for drinking water purpose. The government provides no kind of Vulnerable Group Feeding cards for them in those areas. Lack of scientific knowledge, illiteracy and lack of government support were the major constraints. As for it, most of them are getting fishing facilities like boat, net, credit from *Mahajan*. They were the poorest of the poor in the society and they have no alternative livelihood options to earn their bread other than fishing in the area.

Key words: Fishermen • Livelihood Status • Constraints

INTRODUCTION

Fish and Fisheries sector play an immensely important role on the socio-economic development of Bangladesh from time immemorial and it is the part of our cultural heritage. Fisheries sector contributes about 3.00% of the total export earning, 3.74% to GDP and 22.23% to agricultural sector [1]. Annual fish production was 2,701, 370MT in 2008-09 fiscal years [1]. Fish also contributed about 58% to the nation's animal protein intake during 2008-09 [1]. At present annual fish intake by an individual is 17.52kg and the annual fish demand is 29.74 metric tons [1]. So it can reduce its malnutrition problem by increasing the production of fish. Fisheries sector creates 1.4 million full time employment and part time employment of nearly 11 million people [2]. A large portion of rural family members are engaged in part time fishing from the *beels* [3].

Fishermen are one of the most vulnerable communities in Bangladesh. They are poor by any standard and over the years economic condition of the

fishermen had further deteriorated. Alam and Bashar [4] estimated the average per capital annual income of the fishermen families to be BDT 2,442 i.e. about 70% lower than the per capital income of the country as a whole. Being an isolated community fishermen are deprived of many amenities of life.

A livelihood is a sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in future, while not undermining the natural resource base [5]. For sustainable rural development and poverty elimination, different approaches had been adopted and the sustainable livelihood approach has been gradually expanded with its own core and principles for poverty focused development activities [6]. The approach basically based on the fundamental principle analysis of capital assets in the context of the external environment. A sustainable livelihood is a way of thinking about the objectives, scope and priorities for development, in order to enhance progress in poverty elimination [7].

Old Brahmaputra River adjacent to the Mymensingh town is one of the most important ecosystems with much aquaculture potential. This flood fishery plays a very important role in alleviation of rural poverty and supplying food to the poor fishing community. However, socioeconomic status of this fisherman is not satisfactory; production of fish in this river is also declining day by day. Considering the above fact, the present study was carried out to assess the livelihood status and constraint faced by the fishermen in the area.

MATERIALS AND METHODS

This study was conducted from April to August, 2010. The investigation was imposed on Charkalibari, Chargobaida, Charvanga and Nilukhairchar. 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 few fishermen. In this 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 included the questions on the socio-demographic condition, income of fishermen, family size, family members and factors affecting the level of fish production of *beel* fisheries. Primary data were collected through personal interview supplemented by multiple methodological Participatory Research Approach (PRA) tools such as Focus Group Discussion (FGD) and Crosscheck Interviews (CI) with key informants. Necessary relevant information on the socio-economic condition of fishermen was collected from regional offices. All the collected information were accumulated and analyzed by MS-Excel and then presented in textual, tabular and graphical forms to understand the present status of the livelihood status and constraints of the fishermen of the studied area.

RESULTS AND DISCUSSION

Human Capital

Religion and Age Structure: Muslims were featuring as the absolute majority of the fishermen. About 85% and 15% riverine fishermen were Muslims and Hindus respectively. Different categories of age groups: young (20-30 years), middle aged (31-40 years) and old (41-60 years) were considered to examine the age structure. It appeared (Fig. 1) that age group of 31-40 years was

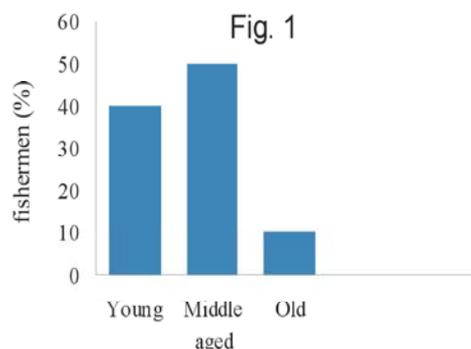


Fig. 1: Age distribution of the fishermen in the study area

Table 1: Family size of the fishermen in the study area

Family size	no. of fishermen (n=50)	% of total fishermen
Small family (2-4)	5	10
Medium family (5-6)	30	60
Large family (7-10)	15	30

the highest (50.00%) and 41-60 years was the lowest (10.00%) considering all fishermen. Ali *et al.* [8] found that most of the fish farmers (50%) belong to age group of 31 to 40 years in Mymensingh district. Bhaumik and Saha [9] reported that age structure of fishermen at Sundarbans was ranged from 20 to 70 years which more or less agreed with the present findings.

Family Size and Type: The family size of the fishermen was divided into three classes as small, medium & large. From this research it was found that, most of the fishermen family were composed of 5 to 6 members (60%), marked as medium family. Very little no family contains of small family as 2 to 4 members as 10% and the large family as 30% (Table 1). Most of the fish farmer (45%) belonged in the 4 to 5 member's family in Mymensingh district [8]. It was found that, 60% fishermen families were jointed and 40% of families were nuclear. About 42.5% of the fish farmers lived in nuclear family and the rest (57.5%) in joint family in Mymensingh district [8].

Educational Status: Most of the fishermen are illiterate (88%). Only small portion of them can sign only (2%). Some are primary level of educated (10%). None of the fishermen were from secondary level (Table 2). Mahburur [10] reported that 68% of *hoar* fishermen were illiterate, 28% up to primary level and 4% had only secondary level education.

Natural Capital: Natural capital of the fishermen represents the natural resources such as land, water, timber and wider environmental goods that are critical for

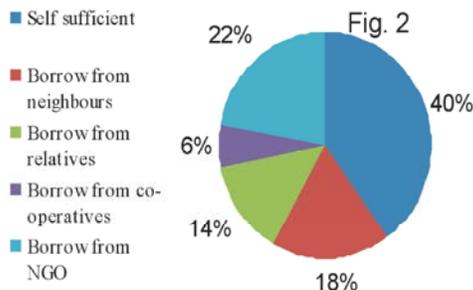


Fig. 2: Sources of credit facilities for buying fishing gear of fishermen in the study area.

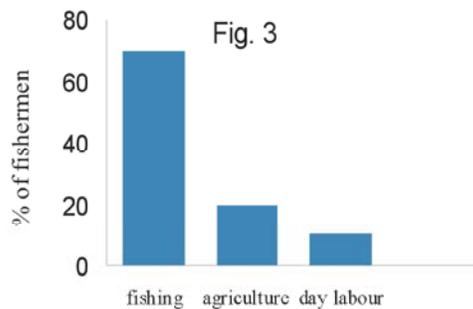


Fig. 3: Main occupation of the fisherman

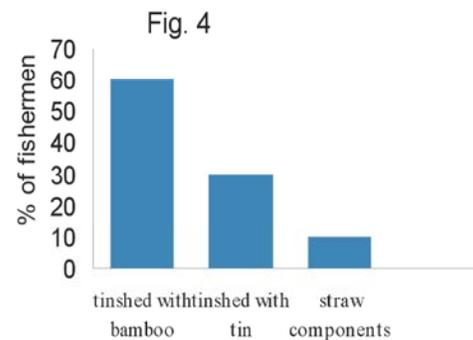


Fig. 4: Housing condition of the fishermen. Tinshed with bamboo: only roof is tin, Tinshed with tin: both roof and surroundings built by tin and Straw: completely built by straw.

fishermen and associated groups to support production [8]. Rapid population growth has led to accelerate capital depletion that has affected their income in the fishermen of study area.

Financial Capital

Credit Access: The national and local NGO like BRAC provide credit only to the organized poor members for purchase fishing gears and boats. After repayment only 40% became self sufficient who did not need financial help but 14% borrow money from their neighbors, 18% from relatives, 22% from NGO's and 6% from co-

operatives for their fishing business (Figure 2) which was similar to the findings of Alam *et al.* [4] in Natore district.

Sources of Income: It was found that there were three types of fishermen such as professional, occasional and subsistence. The average annual income of professional, occasional and subsistence fishermen were BDT 25000, 24000 and 32000, respectively (Table 3). The average annual income of fishermen in the study area was estimated at BDT 34333.33 which indicating better than national average income at BDT 22,000 [11].

Occupational Status: Most of the fishermen around the old Brahmaputra river area were involved in fishing as their main occupation. However, some were also engaged in agriculture and day labor as their main occupation. The present study has revealed that 70% of fishermen were engaged in fishing as their main occupation, 20% was in agriculture and 10% in daily labor as in sand business (Fig. 3) which was more or less similar to the findings of Alam *et al.* [4].

Annual Income: Annual incomes of the fishermen were varied from BDT 24000 to 50000. The selected fishermen were grouped into three categories based on the level of annual income and it was found that about 60% of the fishermen had annual income between BDT 24000 to 35000 and 30% of the respondent had income in the ranged BDT 35001 to 45000 (Table 4) which was more or less similar with the findings of Ali *et al.* [8].

Table 2: Educational status of the fishermen in the old Brahmaputra River area

Educational status	no. of fishermen (n=50)	% of total fishermen
Illiterate	44	88
Capable to sign only	1	2
Primary	5	10
Secondary	0	0

Table 3: Sources of income of the fishermen in the old Brahmaputra River

Types of fishermen	Fishing	Agriculture	Day labor	Small trader	Fish sale	Total amount
Professional	20000	-	-	-	5000	25000
Occasional	15000	3000	6000	-	-	24000
Subsistence	5000	18000	-	9000	-	32000

Table 4: Annual income of the fishermen in the study area

Income level (1 US\$ @) 69BDT)	no. of fishermen (n=50)	% of total fishermen
347.83-507.25	30	60
507.26-652.17	15	30
652.19-724.64	5	10

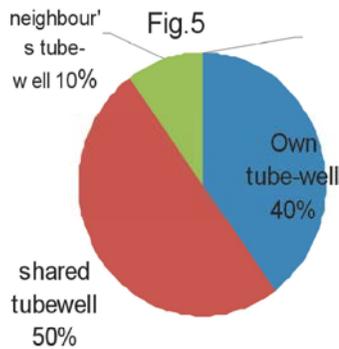


Fig. 5: Drinking water sources status of the fishermen in the study area.

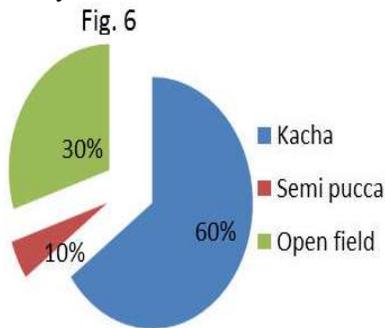


Fig. 6: Sanitary facilities of the fishermen in the study area

Health facilities	no. of fishermen (n=50)	% of total fishermen
Village doctor	30	60
Upazilla health complex	15	30
MBBS doctor	5	10

The fishermen in the adjacent got no kind of government’s assistance as a result their living condition found as so poor. The NGOs’ activities also were not so much active.

Physical Capital

Housing Condition: The nature of house was indicates the social status of the people. During the survey attempts were made to find out the condition of living house of the people. From the survey, it was found that 60% households of the fishermen were tinshed with bamboo. 30% households were tinshed with tin wall. 10% households were containing of straw components (Fig. 4). Alam *et al.* [4] found that about 82.22% of household structures were *kancha* whilst 11.11% were semi-*paka* and only 6.66% were *paka* of the Basantapur *beel* fishermen.

Health Facilities: In the study area health facilities of the fishermen were poor and it was found that 60% of

the fishermen households were dependent on village doctors who did not have any understanding and knowledge of medical science, 30% of the fishermen got health service from upazilla health complex and remaining 10% got health service from MBBS doctors (Table 5) which was more or less similar to the findings of Ali *et al.* [8].

Drinking Water Facilities: The provision of clean and safe drinking water is considered to be the most valued elements in the society. The study showed that 100% of fishermen households used tube-wells water for drinking purposes (Fig. 5) and among them 40% fishermen used their own tube-well, 50% fishermen used shared tube-well and remaining 10% used neighbors tube-well) and among them 54% fishermen used their own tube-well, 42% fishermen used shared tube-well and remaining 4% used neighbors tube-well. This scenario was very common among the fishermen in most areas of Bangladesh and similar results were noted by Alam [4].

Sanitary Facilities: It was observed that sanitary conditions of the fishermen were very poor. In the study area, it was found that 65% of toilets were *kancha* while 5% were semi-*paka* and 30% of the fishermen had no sanitary facilities (Fig. 6). There were no kinds of *paka* sanitation found in the investigation. The present study revealed that the sanitary conditions of the fishermen were not satisfactory than fish farmers in Mymensingh district where Ali *et al.* [8] in his study found that 62.5% of the farmers had semi-*paka*, 25% had *kancha* and 12.5%.

Electricity Facilities: From the present survey, it was found that there were no electricity facilities for the fishermen.

Nets Used: Several forms of nets are being used in the old Brahmaputra river region by the fishermen as *Jhaki jal*, *Dharma jal*, *Current jal*, *Moiya jal*, *Ber jal*, *Thella jal*, *Bair*, *Chandi bair*, *Borshi* etc.

Influence of Mahajan: As there are no sorts of providence from the government. So why, the poor fishermen have to manage loan from the *Mahajan* to buy the fishing boat or the fishing net.

Socio-Economic Constraints of the Fishermen: In the market most of the fishermen are facing various problems during fishing and marketing their goods. The main

problem was recognized as extortion by the local extortionist, other problems were inadequate credit facility, presence of aquatic vegetation, lack of marketing facilities, lack of knowledge of fishing, lack of appropriate gears and disturbances by dacoits and thieves and sometimes by the local people themselves. Most of the fishermen were very poor and they have limited resort to buy nets and other fishing equipment. They are neglected in all respect in the society. Most of them are illiterate and live from hand to mouth. Being very poor their children often go for fishing rather than going school. As a result, generation after generation they remain illiterate and not being able to contribute for the betterment of their community.

CONCLUSION

The socio-economic condition of the fishermen in the adjacent area was not satisfactory. The fishermen were deprived of many amenities. The education level of the fishermen was so poor. Due to the lack of awareness as well as the poor income of the fishermen families, the study of the poor fishermen student doesn't go so far. The educational status should be improved in the adjacent area. So why, some educational institutes should be built up in the adjacent area. The Government should take some important stage by providing some sorts of management policy as well as providing of some extra providence during the ban season of the fishing. That may be done within the providing of the VGF card. Some forms of NGO's activity must be ensured in the adjacent area for the improvement of the life leading status of the fishermen. The NGO's must be helpful about the providence of the loan which may be used for the up gradation of the income procedure. As well as health facilities should be ensured by the government assistance.

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