



## Socio-economic condition of the fisher's community of Meghna river of Ashuganj Upazila in Brahmanbaria District, Bangladesh

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### ABSTRACT

The study was conducted to determine the socio-economic condition of the fisher's community over an area of 4 kilometers of Meghna River at Ashuganj upazila under Brahmanbaria district from January to April 2009. In this study, 10 fishers were randomly selected from each kilometer, thus the total sample size was 40. Studies on socio-economic conditions of Meghna river fishermen were carried out in terms of religious status, age structure, educational status, health facilities, and drinking water facilities, housing condition, sanitary facilities and annual income, catch and species composition. It was found that 90% of the fishermen were Hindus and 10% were Muslim in study area 1 and 65% of the fishermen were Muslim and 35% were Hindus in study area 2. About 2.5% had literacy up to secondary level and 45% can sign only. About 75% and 80% of the fishermen had katcha house while 7.5% and 2.5% fishermen had half-building house in study area 1 and study area 2 respectively. Sanitary conditions of the fishermen were very poor and most of the toilets (50%) were katcha. About 15% of the fishermen have their own tube well and 50% of the fishermen used katcha toilet in study area-1 and in study area-2 47.5% of the fishermen used katcha toilet, 42.5% used semi pucca toilet and the rest of them used pucca toilet. Family size of the fishermen consisted of 2-11 persons. Among those, small family consisted of 2-4 members and large family consisted above 7 members. The highest income of fishermen from Tk 1,00,000-2,00,000/year was 52.5% and the lowest income of fishermen from Tk 25,000-50,000/year was 5%. Besides, various recommendations and necessary measures have been suggested to improve livelihood of fishers' community of the Meghna river.

**Key words:** Socio-economic condition, fisher's community, Meghna river, Bangladesh.

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### INTRODUCTION

Bangladesh is endowed with 230 rivers and Meghna is one of the principal three rivers rich with aquatic biodiversity. It is the largest river of the country interconnected by various channels to form more or less one continuous sheet of water in the rainy season. It covers an area of about 400 hactare of Ashuganj Upazila and the number of fishermen of this area is 2000. The total annual fish production of Meghna river is 104461 MT of which Meghna river under Ashuganj upazila contributes significantly. Different kinds of fish fauna like carps, catfishes, barbs, eels, minnows, clupeids, perch, snakeheads and other

miscellaneous fish species are found in Meghna river.

Fish and fishermen are closely related. Fishermen are one of the most valuable communities in Bangladesh. A total of 1280000 fishermen are fully dependent on fisheries sector for their livelihood. Among them 770000 are engaged in inland fisheries sector and 510000 in marine sector. Most of the fishermen are poor and are deprived of many amenities of life. All time they have to struggle to survive. Socio-economic conditions of fishermen are not at all satisfactory because sometime they do not get free access to water body to harvest fish. Most of the rivers are

now being controlled and appropriated by a few rich and influential person of the area.

Livelihood comprises the capabilities, the assets (natural, physical, human, financial and social relations), the activities and the accesses to these (mediated by institutions and social relations) that together determine the living gained by the individual household (Chambers, 1992). A socio-economic condition is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Chambers, 1992). Poverty has many dimensions and has become one of the major concerns in most of the nations, especially in the developing countries, like Bangladesh. Now-a-days in most of the rural areas in the world, especially in the Asian countries, poverty and malnutrition are widespread among rural people under population pressure. It is estimated that about 70% of the population are living in the rural areas. Therefore, poverty alleviation should be considered as an important part of rural development strategies in which the first requirement is to satisfy the basic minimum need (BMN) of the poor (Setty, 1992).

Ashuganj is an important upazilla in the district of Brahmanbaria. This upazilla is characterized by 1 Major river, 31 beels, innumerable ponds and very large stretches of seasonal floodplains. Ashuganj upazila of Brahman Baria district has been purposively selected as the study area, because Ashuganj upazilla is very rich in fisheries resources. But unfortunately the fisheries resources have been declining day by day. More over Ashuganj upazila is very rich in agricultural land and water resources. The present research programme was conducted to understand the types of different fishing gears used in fishing, quantity and quality of fish caught by each year through catch assessment and socio economic conditions of the riverine fishermen of the Meghna river. The results of the present study may contribute largely in the formulation of appropriate management measures for the riverine fisheries of Bangladesh. The objective of the present study was to determine the socio-economic conditions of the fishermen in the vicinity of the selected areas of the Meghna and to know the present status of

fisheries resources of selected area of the Meghna river.

## **MATERIALS AND METHODS**

### **Study area**

The present investigation was conducted on Meghna river, located at Ashuganj upazilla under Brahman Baria District in the South-Eastern region of Bangladesh. The total study areas were 4 kilometers from where 40 fishermen were selected for collecting primary data.

### **Preparation of questionnaire**

A questionnaire was developed in logical sequence and included various questions related to socio-demographic condition, income of fishermen and the family member, factors affecting the livelihood of fishers' community.

### **Collection of data**

During collection of relevant data, both primary and secondary sources were considered. Primary data were collected directly from the fishermen. Several visits were made to the study area to collect information related to objectives of the study and after each visit collected data were checked for accuracy and clarity. Secondary data were collected from relevant books, journals, thesis and organizations.

### **Data analysis**

The collected data were summarized and scrutinized carefully before the actual tabulation. For processing and analysis purpose, MS Excel and SPSS have been used.

## **RESULTS AND DISCUSSION**

Social-economic conditions of fisher's community of Meghna river are investigated and presented in table 1, 2 and 3.

### **Religious status**

Religion can play a very important role in the socio-culture and environmental life of people of a

given area, and can act as notable constraint or modifies in social change. The results for religious study are shown in tables 1. The fishermen communities of Bangladesh include people of various castes, creed and status. In the study, about 90% and 10% fishermen were found to be Hindus and Muslim in study area-1 and about 65% and 35% in study area-2 respectively, Similar results were observed by

the study of Shahjahan (2000) who found 66.67% Muslims and 33.33% Hindus among the riverine fishermen of Jamalpur district. The higher percentage of Hindus in the fisher's community might be due to changing socio-economic structure, lack of employment opportunity and realization of fishing as a source of income.

Table 1  
Social condition of fisher's community in the study areas.

Social parameters		Number of respondents (%)	
		Study area 1	Study area 2
Religion	Muslims	4 (10)	26 (65)
	Hindus	36 (90)	14 (35)
Age	Young(20-35)	10 (25)	11 (27.5)
	Middle age (36-50)	15 (37.5)	15 (37.5)
	Old(>51)	15 (37.5)	14 (35)
Family size	Small family (2-4)	14 (35)	12 (30)
	Medium family (5-6)	17 (42.5)	18 (45)
	Large family (>7)	9 (22.5)	10 (25)
Education	Illiterate	16 (40)	10 (25)
	Can sign only	18 (45)	20 (50)
	Primary	5 (12.5)	7 (17.5)
	S.S.C.	1 (2.5)	3 (7.5)
Housing condition	Katcha	30 (75)	35 (80)
	Tin shed	7 (17.5)	3 (17.5)
	Half building	3 (7.5)	2 (2.5)

Table 2  
Facilities of fishermen in the study area.

Types of facilities		Number of respondents (%)	
		Study area 1	Study area 2
Sanitary facilities	Katcha	20 (50)	19 (47.5)
	Semi pucca	17 (42.5)	17 (42.5)
	Pucca	3 (7.5)	4 (10)
Medical facilities	Village doctor	20 (50)	26 (65)
	Upazilla health complex	12 (30)	10 (25)
	M.B.B.S.	8 (20)	4 (10)
Drinking water	Own tube well	6 (15)	8 (20)
	Neighbor's tube well	32 (80)	28 (70)
	Kua	2 (5)	4 (10)
Source of fuel	Wood	6 (15)	2 (5)
	Cow dung	25 (62.5)	28 (70)
	Tree leaves	9 (22.5)	10 (25)
Electricity facilities	Electricity	35 (87.5)	35 (87.5)
	No electricity	5 (12.5)	5 (12.5)
Training	Trained	22 (55)	20 (50)
	Not trained	18 (45)	20 (50)

### **Age structure**

The fishermen were grouped into 3 age groups based on their age limit (Table 1). Knowledge of the age structure of fishermen is important in estimating potential productive human resources. Planning of education, health and employment generation requires sufficient data relevant to age structures. The age distribution of fishermen has an important influence on labor and also on their perceptions of the future. In the both study area, out of the total fishermen, around 75% of the fishermen related to fishing belong to the middle age group and elderly people and each comprised 37.5%. About 25% of fishermen belong to young age group. Differential participation of various age-grouped fishers appeared to be due to personal choice, ease of operation, physical capabilities and social interactions among the fishers.

### **Family Size**

This was defined as the number of persons, either working or not, belonging to the same family. The fishing communities were divided into three groups based on their family member (Table 1). A family in the present study has been defined as a group of persons living together, taking meals from a single kitchen and living under the control of one head. The family members of fishermen in the Meghna river were varied between 2 and 7. About 42.5% of the fishers had medium family followed by 35% with small family where in study area 2, that is 30% and 22.5% of fisher had large family. Similar types of family structure were noted by Shahjahan (2000) in case of fishers in the Jamuna river.

### **Educational Status**

In the study areas 25-40% illiterate (no education), 45-50% capable of sign only, 12.5- 17.5 % primary level, 2.5-7.5 % SSC level of education were observed (Table 1). Mahbubur (2001) found that 68% fishermen were illiterate, 28% had education up to primary level, 4% fishermen had secondary level of education in the Baculiar haor areas. Low rate of literacy among the respondents in this study is due to poor socio-economic condition. Most of the children of fishermen community had to go for earning and they did not

get access to educational amenities. Besides, another cause was lack of awareness about education and there is no well developed educational infrastructure in the Meghna river areas.

### **Housing conditions**

It is evident from the study that majority (75-80%) of the respondents had Katcha house (made up of wood, mud, straw and dry leaves), 17.5% had tin shed (made of tin) and 2.5-7.5% had half building (made up of wood, bricks, cement with tin roof) (Table 1). The study is in accordance with the study of Islam (2009). Most of the dwellers of the Meghna river area are very poor; they live from hand to mouth. Other than fishing their income is very limited that make them bound to live in poor housing conditions (Mahbubur, 2001).

### **Sanitary facilities**

As indicated by respondent different types of toilets are used (Table 2). It was observed that 47.5-50% of toilets were katcha (made of bamboo with leaf shelter with no or inadequate drainage disposal), while 42.5% were semi-pucca (made of tin or wood with inadequate drainage disposal) and only 7.5-10% were pucca (made of brick with good drainage disposal). Islam (2009) also indicated similar findings where only 7.5% stated that they had paca toilet and 50% had kacha and 42.5% had semi paca sanitary facilities. The fisher's community often suffered from diarrhea and cholera due to lack of good sanitary facilities.

### **Medical facilities**

Respondents were requested to state the type of health services that they could afford for their family. The respondents indicated that 50-65% of them were dependent on village doctors (unqualified practitioners), while 25-30% and 10-20% got health service from the upazilla health complex and MBBS (Bachelor of Medicine and Bachelor of Surgery) doctors, respectively (Table 2). Similar observations were reported by Bappa et al., (2014). The respondents thought that poor health and inadequate nutrition of the children, women and old- aged members of fish farmers communities inhibits their development.

### Source of drinking water

The both study showed that around 95% of the fishermen household used tube-wells for drinking water, while 5% used of kua water (deep pits for getting ground water) due to arsenic and other problems in tube-wells. Only 15% were found to have their own tube-well, other fishermen were using neighbor's tube-wells. In a study by Bappa et al., (2014) 82% fishermen used deep tube well water while remaining 18% collected water from other sources such as river, canal water etc. Mahabubullah (1986) noted that 41% fishermen used tube well for drinking, cooking, bathing and washing.

### Source of energy

In the study area, three main types of cooking fuel are used: cow-dung, tree leaves, and wood including tree branches. In the both study area, 87.5% of the respondents are enjoying electricity and 12.5% had no electricity facilities. Bappa et al., reported 82% fishermen Marjat Baor at Kaligonj in Jhenidah district had no electricity connection and DoF (1996) reported that overall 2% fishermen used electricity in different areas of Bangladesh. Due to lack of energy, fishermen are not able to preserve fish.

### Training

In recent years, DoF, NGOs and other institutes have been providing training to the fish farmers. The respondents had some access to training and technical assistance (e.g. net making, fishing method, marketing channel etc.). About 50-55% fishermen were trained from the above organization and rest of them had no training (Table 2).

### Annual income

In Meghna river the main source of income of the fishermen are fishing. The highest annual income was found among the 52.5% fishermen and they earned their maximum income from fishing as the main occupation and the lowest annual income was found among the 5% fishermen and they also earned their maximum income from fishing as the main occupation. Very few of the fishermen have other source of income from labour, agriculture, small business, livestock etc. Mia (2009) noted on the income of the fishermen of the Meghna River as the highest income from Tk. 1,00000 - 2,00000/year by 52.5% of the fishermen and the lowest income from Tk. 25,000-50,000/year by 5% of the fishermen.

Table 3  
Economic status of fisher's community in Meghna river.

Income Category		Number of respondents (%)	
		Study area 1	Study area 2
Income	Low income (25,000-50,000)	2 (5)	2 (5)
	Medium income (51,000-1,00000)	17 (42.5)	17 (42.5)
	High income (1,00000-2,00000)	21 (52.5)	21 (52.5)
Secondary occupation	Crop cultivation	20 (50)	17 (42.5)
	Daily labour	12 (30)	13 (32.5)
	Other	8 (20)	10 (25)
Credit	Received loan	28 (70)	25 (62.5)
	don't received loans	12 (30)	15 (37.5)



## Occupation

In the present study around 50% of respondents stated that their secondary occupation was agriculture while 30% and 20% were occupied in daily labour and others works (i.e., NGO workers, etc) respectively (Tables 3). Bappa et al., (2014) reported that 60% respondents was fisher as their main occupation. Since fishers sector did not provide them adequate support for their livelihood they are engaged in agriculture, day labour etc for getting partial support.

## Credit

From the survey, it was found that 70% and 62.5% of fishermen received loan while the rest 30% and 37.5% of the fishermen don't received loans in the study area 1 and 2 respectively (Table 31 and 32). Over recent years several institutions such as banks, NGOs, moneylenders etc. providing credit to the fishers. The amount of loan for fishermen varies from fishermen to fishermen, depending on processing costs, catch systems, boat and net size and management. The average amount of credit received by a fisherman was estimated at Tk. 7,000 to Tk.12, 000. Most of the respondents (72%) who received financial assistance were able to repay the loan and only 28% were unable to pay back the loan due to loss of agricultural production, lack of money, low catch and due to poverty such as lack of food, clothes and illness

The socio-economic state of fisher's community of Meghna river indicate that they are facing lots of problem for their livelihood development. The major problems were lack of financial support for fishing and living, technical knowledge on fishing and management is another major problem stated by them. Lack of facilities of institutional training, education, medical service and fishermen

friendly credit system are necessary for development of fisher's community. As fish and fishermen are closely related, so the improvement of their socio-economic condition is demand-worthy. However further studies are needed to address the more specific issues to promote the potentialities of fishers communities towards contributing the nation economy.

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