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## Fisher's livelihood at Karatoya River, Bogura

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### Abstract

The study was concerned with the livelihood status of fisher's community of Karatoya River under Bogura district during the period from January to June 2014. The objectives of the study were to determine the socio-economic conditions of the fishermen of Karatoya River. A semi-structured questionnaire was used to collect the pertinent information from 40 randomly selected fishermen from the study area. Socio-economic conditions of fishermen were elucidated in terms of age structure, religion, educational status family size, and annual income. The study reveals that the age structure of the fishermen in the range of 25-39 years was the highest (62.50%) and above 60 years was the lowest (7.50%). It was found that 57.50% of the fishermen were Hindu and 42.50% were Muslim. Majority of them (62.50%) were illiterate, 30% could sign only. About 22.50% fishermen lived in half building. Only 2.50% had building. On average 85% fishermen used tube-wells, while 2.50% used pond and 2.50% used river water for drinking. About 25% of them got health service from Health care Centre, 45% depended on village doctor and 30% got medical services from other sources. It was found that 72.50% fishermen had electricity, while 27.50% had no access to electricity supply. It was observed that sanitary conditions of the fishermen were very poor. About 40% had Katcha toilet, 22.50% had semi-pucca facilities. About 37.50% had pucca sanitation among the selected users. The fishermen and other local elites reported that fish population in the old Karatoya River has been declining very fast over the last decades.

**Keywords:** Karatoya River, livelihood, human capital, social status

### Introduction

Bangladesh is blessed with rich and extensive inland and marine fisheries resources with a wide variety of indigenous and exotic fish fauna. This riverine country has tributaries flow through the country constituting a water way of total area about 8, 53,863 hectares<sup>[1]</sup>. And these are providing great opportunities for increasing production of fish and socio-economic security of surrounding people. Fisheries sector plays an important role in employment generation and poverty alleviation in Bangladesh. About 11% of the total population are directly or indirectly depend on fisheries<sup>[2]</sup>.

The river Karatoya plays a vital role in alleviation of rural poverty and supplying food to the poor fishing community. The main channel is known as the Jamuna and another channel is known as the Karatoya which arises near Gaibandha runs through Bogura. The flow of Karatoya River has full speed only in the rainy season. It is an important source of fish throughout the year and major portion of this river are used as the natural breeding ground of Carps fish. A handsome amount of carps' fries are caught from the river. River Karotoya plays a vital role in livelihoods of the surrounding people for fishery-related activities like fish marketing and trading, craft and gear maintenance etc. for their livelihood. For many fishermen, fishing is a seasonal activity while to the traditional fishing communities it is the major and, in some cases, the only occupation available<sup>[3]</sup>.

Most of the river dwelling fishermen are poor and are deprived of many amenities of life. All time they have to struggle to survive. Livelihood status of the fishermen mostly depends on the fisheries resources of the river. On the other hand, fish biodiversity is also somewhat dependent on the livelihood of the fishermen. So, fishers play an important role to enrich the fish biodiversity and economics of Bangladesh. In case of employment opportunities, the inland fisheries play a vital role and necessary step should be taken to the proper management of these resources. Bogura town is flourished by the bless of Karotoya river because it has a good ecosystem with aquaculture potential and also from different perspectives. therefore, it is of paramount to know the livelihood status for efficient and rational management of these

resources. Therefore, the present study is undertaken with the following objectives, to determine the socio-economic conditions of the fishermen in the Karatoya River, Bogura.

## Materials and Methods

### Study area and duration

The present study was carried out in some selected areas of Karatoya River in the vicinity of Bangladesh Agricultural University campus in Bogura district for a period of 6 months from January to June 2014. This study involves some necessary steps which

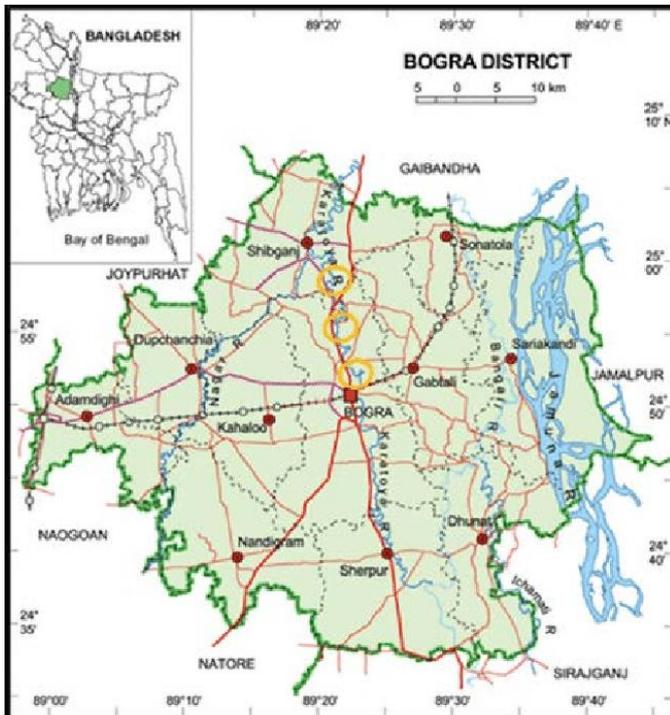


Fig 1: Map of Bogura district

### Preparation of questionnaire

A draft interview schedule was developed and pre-tested in the study area by interviewing the fishermen by the researcher. Then it was changed, modified and rearranged. The final questionnaire was developed in logical sequence, so that the fishermen could answer chronologically.

### Data collection

Weekly field survey was carried out to collect the necessary information. A total of 40 fishermen households were selected randomly to avoid biasness various participatory rural appraisal (PRA) tools, especially interview and focus group discussion (FGD) were employed to collect necessary data from the respondents.

### Data processing, analysis and presentation

The collected data were summarized and scrutinized carefully before the actual tabulation and scrutinized carefully and analyzed by MS Excel and then presented in textual, tabular and graphical forms to understand the socio-economic conditions of the fishermen in the study area.

## Results and Discussion

### Human capital

#### Age structure

Overwhelming majority (62.50%) of the fisher's community of Karatoya River were represented by the young people

followed by middle-aged (30%) people. Elderly people constituted only a small proportion of the sampled fishers. Participation of younger people in productive activities is always desirable. Participation of larger number of young people in catching fish in the surveyed area is in agreement with the findings of [4] who reported that 25% of fishermen of Meghna river were young aged, 75% middle aged and only 37.50% aged in. [5] found that majority (50%) of the fish farmers belonged to age group of 31 to 40 years in Bogura district (figure 2).

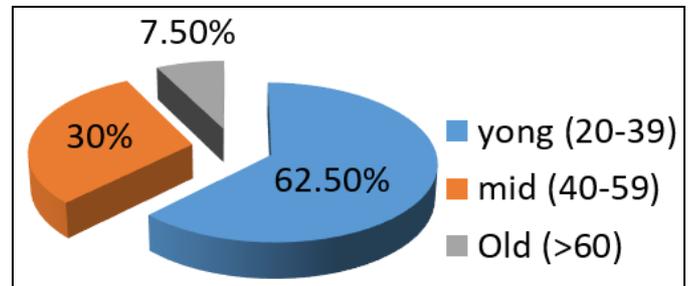


Fig 2: A graphical presentation of age distribution

### Religious status

Most of the respondents in the present study belonged to the Hindus religion. About 57.50% respondents were Hindus and 42.50% were Muslim [6]. stated that in Kolimar Haor, Itna, Kishorgonj 36.67% fishers were from Muslim community and 63.33% fishermen were from Hindu religion. The religious status of fisher community is often similar to all over our country.

### Educational status

In the study area 62.50% of respondents were illiterate, 30% of them could sign only and 7.50% fishermen read up to primary level which was similar to the findings of [7].

### Family size and Family number

Most of the fishermen family in the present study was composed of 4 to 6 members. About 32.50% fishermen families were joint families and 67.50% of families were nuclear in nature. The findings of the present study are more or less similar to report of [5].

### Physical capitals

The physical capital of fishermen is transport, drinking water supply, sanitary facilities, shelter, roads, market, electricity, home appliances, furniture etc. [8].

### Housing conditions

From the survey it was found that 10% households of the fishermen lived in Kacha house and 65% in semi Pacca house. About 22.50% households lived in half building (tin-shed). Only 2.50% had building house for living [7]. also found the similar nature of housing conditions in the Karatoya River. This situation demands pragmatic steps for corrective measures to improve the living condition of the fishers.

### Source of drinking water

The study showed that 85% of the households used tube-well for drinking water. On the other hand, 2.50% used pond and 2.50% used river as their source of drinking water. Though 85% of fishermen used tube-well for drinking water. This scenario is very common among the fisher community in most of the areas of Bangladesh.

### Health facilities

Majority fishermen (45%) received health suggestions from village doctor, mostly unskilled. Only 25% fishermen got medical facilities from Health Care and 30% of them depend on other health facilities such as Kobiraj of their locality.

### Electricity

In the study area 72.50% of the Fishers household had electricity and 27.50% had no electricity facilities [9]. reported that 48% fishermen had no electricity facility in Chalan Beel areas under Tarash Thana in Sirajganj district.

### Sanitary facility

40% fishers had Katcha toilets, 22.50% had semi-pucca and about 37.50% had well-built toilets. The findings of the present study coincide with the report of [10] who found 68% of Katcha, 18% and 6% were semi-pucca and pucca toilets, respectively in Morgangi Beel areas. The present study revealed that the sanitary conditions of the fishermen were not better than that of fishers in Bogura district [5].

### Land Holding Status

About 37.50% of the fishermen had only 1-5 decimal while, 35% fishermen had 6-20 decimal, 2.50% fishermen had 21-50 decimal, 2.50% fishermen had 51-100 decimal and 22.50% of them had no land of their own in the study area. [10] found that the average homestead area of the fishers is 0.003 ha in Jamalpur district.

### Financial capital

#### Main Source of Income

About 52.50% of fishers were involved in catching of fish and 17.50% were involved in both culture and catching of fish and only 30% were involved in selling of fish.

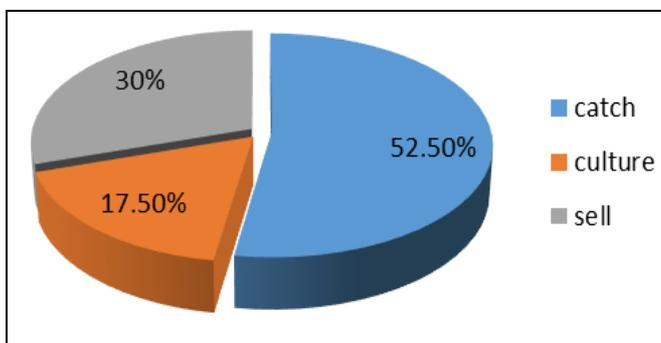


Fig 3: Graph presenting of main source of income of fishermen

#### Other source of Income

Fishing is the main source of income for the traditional fishermen, but they were found to be involved in fishery-related and non-fishery related activities like business, agriculture etc. About 25% of them had their own business as secondary source of income and 45% were involved in agriculture and 30% involved in other occupation as secondary source of income which was similar as [4].

#### Annual Income

About 12.50% of the fishermen had annual income between BDT 50000 to 59000 and 17.50% of the respondent had income in the range of BDT 60001 to 69000 and 22.50% of them had income in the range of BDT 70000-79000. About 47.50% had their income BDT >80000. Relatively higher level of annual income was restricted to within 47.50% of

fishermen community and lowest income was prevalent with 12.50% fishers which was more or less similar to the study of [10].

### Constraints faced by fishermen

In the study area fishermen faced various problems in their daily life such as, declining in fish catch, lack of capital and inadequate credit facility, non-availability of ice, unstable price of fish. Generally fisher communities in Bangladesh are socially disadvantaged lacking in many basic needs. They are neglected in our society and most of them are illiterate and poor. For this reason they remain illiterate from generation to generation.

### Conclusions

The study was conducted to determine the livelihood status of the fishing community and fish biodiversity of Karatoya River under Bogura district. The research work was carried out from January to June 2014 at Karatoya River, adjacent to Bangladesh Agricultural University in Bogura. Socio-economic conditions of fishermen were not satisfactory. The river fishermen were elucidated in term of age structure, religion, educational status family size, and annual income. There were some constraints faced by the respondents such as, unable to bear family expenses with fishing income during dry season of the year, to borrow money from the local money lender at a very high interest rate which compelled them to becoming even poorer, insufficient fish catch and declining trend in fish abundance etc.

### References

1. DoF (Department of Fisheries) Saranica: Matsya Pakhya Sankalan, Annual Report, Ministry of Fisheries and Livestock. The Government of Peoples Republic of Bangladesh, Dhaka. (In Bengali), 2012, 13.
2. DoF (Department of Fisheries) Saranica: Matsya Pakhya Sankalan, Annual Report, Ministry of Fisheries and Livestock. The Government of Peoples Republic of Bangladesh, Dhaka. (In Bengali), 2014, 13.
3. Mahmud T. Biodiversity in some selected areas of the Karatoya River in Jamalpur district. MS Thesis, Department of Fisheries Management, BAU, Bogura, 2013, 15-58.
4. Mia MS. Present Status of Fisheries and Socio-Economic Condition of the Fishers' Community of Meghna River of Ashuganj Upazila Brahman Baria District. MS Thesis, Department of Fisheries Management, BAU, 2009, 6-75.
5. Ali H, Azad MAK, Anisuzzaman M, Chowdhury MMR, Hoque M, Sharful MI. Livelihood status of the fish farmers in some selected areas of Tarakanda Upazila of Bogra. Journal of Agro-forestry Environment, 2009, 385-89.
6. Hossain T. Study on biodiversity of fish fauna and socio-economic condition of the fishermen in the Kolimarhaor, Itna, Kishorgonj. 2007, 56-80.
7. Kabir KMR, Kumar R, Hossain MB, Minar MH. Livelihood Status of Fishermen of the Karatoya River, Bangladesh. World Applied Sciences Journal. 2012; 16:869-873.
8. DFID Strategies for achieving the international development targets: Poverty eradication and employment of women. Consultation documentation, Department for International Development (DFID), United Kingdom, 2000.

9. Kostori MFA. Socio-economic condition of fishermen of the Chalan Beel under Tarash Thana of Sirajganj in Bangladesh. Bangladesh Research Publications Journal. 2012; 6:393-402.
10. Shahriar M, Hoque MM, Haque MR, Hossain MA, Das DR. Livelihood status of fishing community of Morgangi Beel under Melandah Upazila of Jamalpur district, MS Thesis, Department of Aquaculture, BAU. 2010, 45-63