Socio-economic conditions of fishermen in Kanaighat Upazila of Sylhet, Bangladesh

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Abstract. The present study was undertaken to portray the socioeconomic conditions of fishermen in Kanaighat upazilla, Sylhet. A well-structured questionnaire was used to gather data from a total of 50 randomly chosen fishermen. About 55% of fishermen worked exclusively in the fishing activities, while 30% worked in agriculture and 15% worked as day laborers. The fishermen' highest yearly income ranged from BDT 25,000 to 40,000, while their lowest annual income ranged from BDT 5000 to 10,000. About % of fisherman had no education, 32% could only sign, % had primary education (up to 5 classes), and just 3 % had both S.S.C. and H.S.C. Almost all fishermen had sanitary facilities, with 67.5 % having kaccha and 32.5 % having semi-concrete. Approximately 100 % of the fishermen utilized tube well water, with 65 % having their own tube-well and the remainder using a neighbor's tube-well. The government did not give Vulnerable Group Feeding (VGD) cards in the study area. The main obstacles were discovered to be a lack of scientific information, illiteracy, and a lack of governmental assistance. Mohajan provides most of them with fishing equipment such as a boat, a net, and credit. Fishermen employed a variety of nets, including Ber jal (seine net), Current jal (gill net), Jhaki jal (cast net), and Thela jal (Push net). The Surma River was the primary source of fishing. They also caught fish from the Andu, Rouwa, and Atghaiya beels. Fishers in the study region had no other choices for earning a living outside fishing in the area.
Keywords: Fishermen, Socio-economic, Livelihood, Fisheries

Introduction

Bangladesh has enormous capture fishery and aquaculture opportunities because to its abundant inland waters and river systems (Shamsuzzaman *et al.* 2017). Bangladesh's fisheries industry is broadly separated into three sub-sectors: inland capture, inland culture, and marine fisheries (DoF 2016). The inland fishery is further subdivided into two subsectors: inland catch and inland culture. There are five types of habitat in the inland capture fishery: 853,863 ha of river and estuary, 177,700 ha of Sundarbans, 114,161 ha of beel, 68,800 ha of Kaptai lake, and 2,695,529 ha floodplain (haor) (FRSS 2016). Because the Sylhet basin is a freshwater area, commercially valuable freshwater fish are more abundant in this region. Kanaighat is an upazilla (sub-disctrict) of Sylhet district in Bangladesh's division of Sylhet. This upazilla has a total area of 412.25 sq.km. This upazilla is home to approximately 250000 people. It is located on the Surma River's bank.

Riverine resources are dwindling as a result of a lack of adequate management policies. The main cause of this problem is overexploitation, as well as the unplanned installation of flood control, drainage, and irrigation projects (Rishan and Fagun 2019). Over the decades, the river's fisheries resources have been strained by fast population development and the expansion of agricultural, irrigation, household, and industrial operations.

Fishermen appear to be one of Bangladesh's most vulnerable communities in terms of livelihood options. The word socio-economic condition refers to the social and economic aspects of fishermen households' living situations in the context of their present employment, such as income, food consumption, health and child education, housing and sanitation, and so on. Fishermen are persons who are directly or indirectly involved in fishing, such as capturing, processing fish, purchasing and selling fish. This fishing community's socioeconomic position is deplorable, and fish catch is decreasing day by day. Given the foregoing, the current study was undertaken to analyze the livelihood situation and constraints faced by the fishermen of Kanaighat upazilla in the Sylhet district.

Materials and Methods

The study was carried out during the periods between June to November 2017 on the fishing community of Kanaighat upazilla Sylhet. Primary data were collected from the field. The method of collecting data depends upon the nature, aim and objectives of the study. There are several methods of collecting data and information. Both primary and secondary data sources were considered. Primary data were collected by semi structured questionnaire interviews, Participatory Rural Appraisal (PRA) tools such as Focus Group Discussion (FGD) and cross check interviews with key information. The secondary data were collected from various book, journals, previous research and fisheries organization. The flow diagrams different stages of the study are shown in the following Fig. 1.
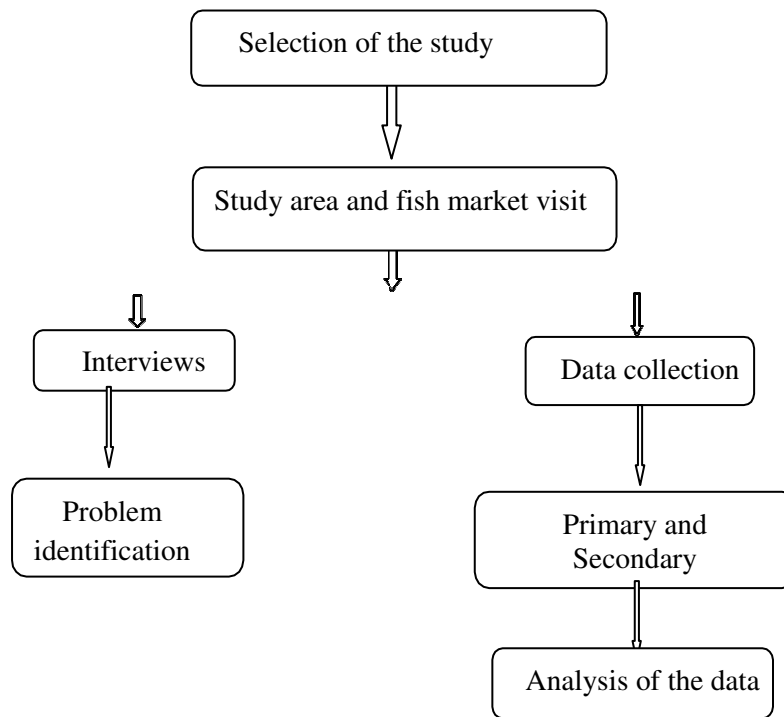

Fig. 1. The flow diagram of different stages of the study.

Selection of respondents and sample size: The target group was fishermen who were involved in fishing permanently and partially for their livelihood. The data was collected randomly from fishermen. For data collection the target group were fisher and fishing community members of the Kanaighat upazilla, Sylhet. A large number of fishers are known to be engaged in fish catching. The total samples were 50 fishers for questionnaire interviews. Most of the fishers in the study area were very much cooperative for field survey.

*Collection of data and analysis***:** There are several methods of collecting data and information. Both primary and secondary data sources were considered. Primary data were collected by semi structured questionnaire interviews, Participatory Rural Appraisal (PRA) tools such as Focus

Group Discussion (FGD) and cross check interviews with key information. The secondary data were collected from various book, journals, previous research and fisheries organization. The data were accumulated, grouped, summarized and finally presented in textual, tabular and graphical from for easy understanding.

Results and Discussions

A total of 50 fishermen were interviewed from seven villages (Jontipur, Birdol, Khurdo, Rampur, Baiumpur, Kuorgori, Raigor) of Kanaighat upazilla for the study. A detailed analysis was made on the following parameters: (1) Natural capital: Aquatic resource, land holding status and pond ownership; (2) Human capital: Aged distribution, Sex status, Religion status, family type, educational status, health facility; (3) Physical capital: House condition, health facility, drinking water facility, sanitary facility, electricity, fishing assets; (4) Financial capital: Occupational status, annual income, loan; (and 5) Social capital: Training.

Natural capital- Aquatic resource: In the secondary data surveyed area, Kanaighat is an upazilla in Sylhet district of Bangladesh with an area of 412.25 sq km. The fishermen of this area are largely depend on its water bodies. Different species of fish fauna were caught by the fisher in these water bodies including carps, barbs, cat fish, snakeheads, and crustaceans.

Land holding status: Small land ownership (0 to 20 decimal): 23 persons (46%), medium land ownership (21 to 40 decimal):13 persons (26%), large land ownership (41 decimal and above): 8 persons (16%) and no land: 6 persons (12%) (Fig. 2). Momotaz (2009) found that the highest number of fishermen (60%) had above 50 decimal lands. So this result is almost similar to the present study.
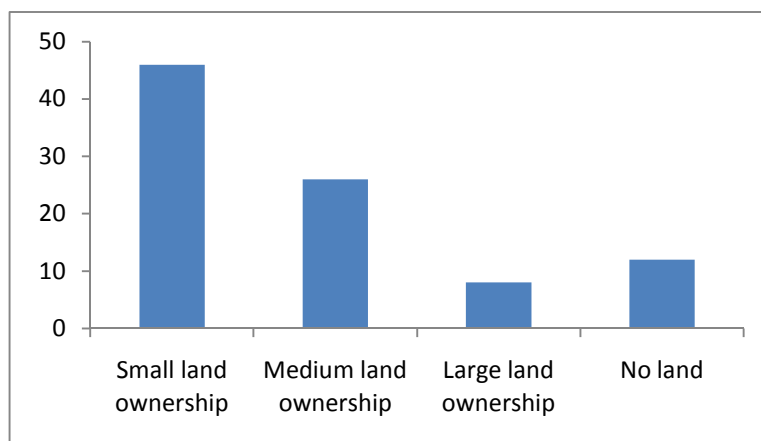

Fig. 2. Land holding status of fishermen.

Pond owner: The result in the survey showed that 28% of the fishermen had own pond and 72% had no pond. Alam (2006) showed his survey 80% fishers having single ownership and 20% have multiple ownership of their pond. So this result is much higher than the present study.

Human capital

*Age distribution***:** In the study the age of the fishermen was classified into 3 group such as young age (18-30), middle aged (31-40) and old aged (41-50 or above). The results showed that majority of the fishermen was middle aged (40%) other 12 persons were young aged (24%) and old aged group were 18 persons (36%). Ghosh *et al.* (2015) found that in 105 fishermen interviewed 59% were below 30 years, about 29% between 30 to 39 years and 11% were 40 years above. So this result is similar to the present study (Fig. 3).
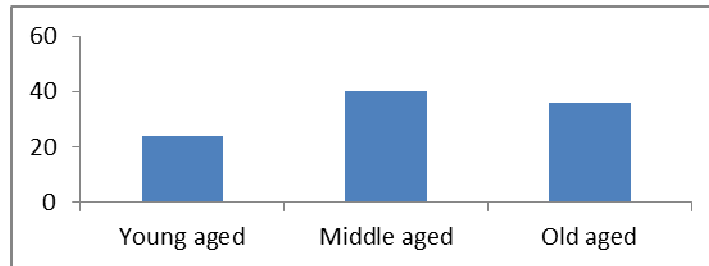

Fig. 3. Age distribution of fishermen.

*Religion status***:** In the study it was found that maximum fishermen were muslim (70%) and hindu (30%). Bhuyan and Islam (2016) served of the Meghna river adjacent to Norsindi district and found that most of the fishermen were Hindu (63%). Kabir *et al.* (2012) showed in his result that 95% fishers were Muslim. So it is similar to the present study (Fig. 4).
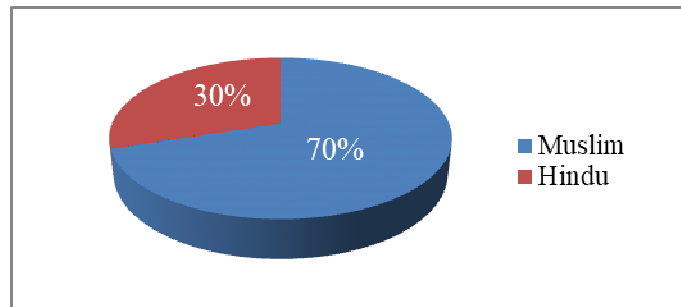

Fig. 4. Religion status of fishermen.

*Family Type***:** The result shows that 66% fishermen families were nuclear family (parents and children and 34% fishermen family were joint family. Hossain *et al.* (2015) found that most of the fishermen family size 5 to 7 member, which is almost similar to the present study (Fig. 5).
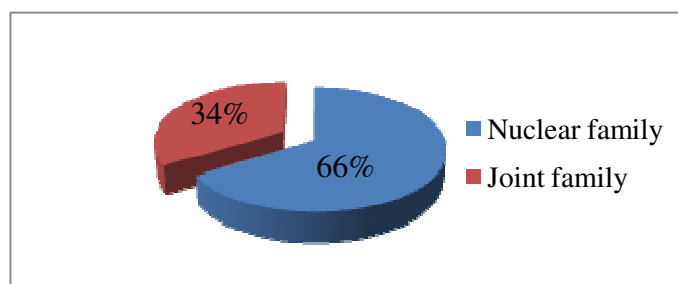
Fig. 5. Family types of the fishermen.

Educational status: In the study area it was found that 44% fishermen had no education, 32% fishermen can only sign and 18% fishermen had primary education level, around 6% fishermen had S.S.C and H.S.C level education. The result showed that about 15% of the fishermen had no school going children, 30% children was drop out at primary level and 55% of fishermen children drop out at secondary level (Fig. 6). Khan (2011) studied at Tista river in Rangpur district found that 20% of the fishermen up to primary education level and 6% up to secondary level and 1% up to S.S.C. The education level is almost similar in both areas.
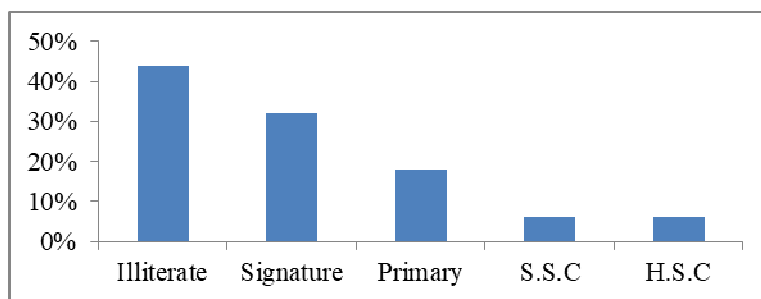

Fig. 6. Educational status of fishermen.

Health facilities: In the study area it was observed that 50% of the fishermen households were depend on village doctors and 28% of the fishermen got health service from upazilla health complex and rest 22% got health service from M.B.B.S doctors. Hossain *et al.* (2015) studied on the Punorva river, Dinajpur and found that 40% of the fishermen received health service from village doctor, 23% from Upazilla medical, 7% from M.B.B.S doctor. So this is similar to the present study.

Physical Capital

Condition of house: In the study area it was found that 3 categories of housing condition of fishermen (1) kaccha house made of bamboo or tin with mud flooring or wall, (2) semi concrete tin shed with tin wall and concrete flooring, (3) concrete tin shed with brick wall and concrete floor (Fig. 7). The result shows that 72% fishermen had kaccha house and 28% fishermen had semi concrete house and none had concrete house. Khan (2011) found that 83% of the fishermen had the kaccha house, 17% of the fishermen had semi pacca house. Which is similar to the present survey area.
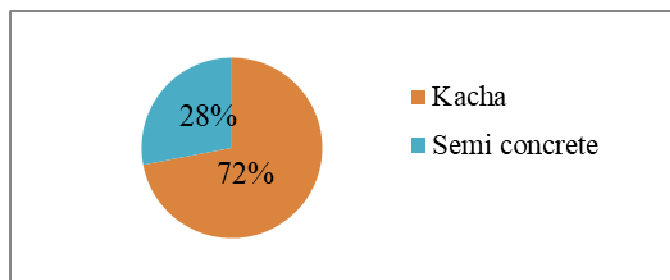
Fig. 7. House condition of Fishermen.

***Drinking water facility*:** In the study area it was found that majority of the fishermen used tube well water which 60% fishermen had own tube well and rest 40% fishermen used neighbor tube well. AL-Mamun (2012) in Gumoti river found that 30% of the fishermen had own tubewell and rest used neighbor tubewell. Just revers result than the present study in case of fishermen status varied area to area.

***Sanitary facilities*:** In the study area it was found that the sanitary conditions of the fishermen were good. About 100% fishermen had sanitary facilities of which 66% had kaccha while 34% had semi concrete (Fig. 8). Ghosh *et al.* (2015) in Teknaf found that 25% of the fishermen had semi constructed and 10% had no sanitary facility. So it is almost similar to the present study.
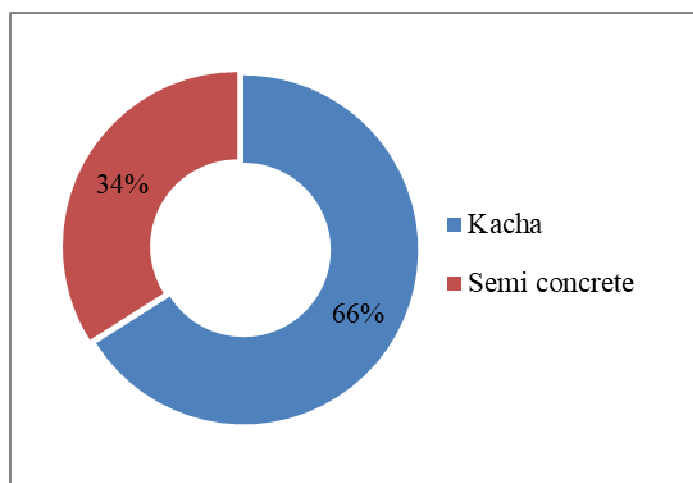

Fig. 8. Sanitary facilities of fishermen.

***Electricity facilities*:** In the study area it was found that 58% fishermen had no electricity facilities and 16% had solar electricity as 26% had electricity facilities. Momotaz (2009) in Khulna found that 90% of the fishermen had electricity facility and 10% had no electricity facility. This result is much higher than the present study.

***Fishing assets*:** In the study area it was found that different kinds of fishing nets were used some fishermen used more than one gear in different season. Several form of nets are using by the fishermen such as Jhaki jal, Current jal, Beir jal, cast nets, Lift nets, Boat for catching fish.

Bhuyan and Islam (2016) found in Meghna river most of the fishermen used Thela jal, Jaki jal, Current jal, Ber jal etc. So this result is similar to the present study.

Financial capital

Occupational status: Most of the fishermen in the Kanaighat upazilla were involved in fishing as their main occupation. However, some fishers were also involved in agriculture and day labor. The present study had revealed that 55% fishermen were engaged in fishing as their main occupation, 30% in agriculture and 15% in day labor (Fig. 9). Bhuyan and Islam (2016) found in Meghna river mainly men (86%) are directly involved in fishing. So this result is almost similar to the present study.
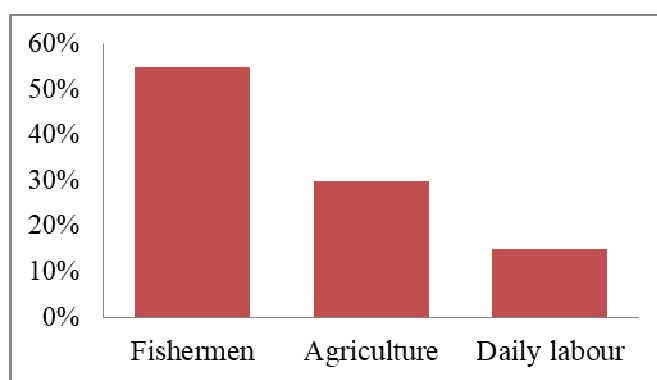

Fig. 9. Occupational status of fishermen.

Annual household income: During the survey it was observed that no fishermen had lowest annual income from fishing between BDT 1000 to 5000, 38% fishermen had a medium income between BDT 6000 to 10000 and 62% fishermen had highest annual income between BDT 11000 to 20000. Khan (2011) found that the highest income of the fishermen was above tk. 60000 and lowest income was tk. 10000. This result is almost similar to the present study. The survey result shows that 55% fishermen received loan from different NGO while 45% of the fishermen used their own money. Bhuyan and Islam (2016) in Meghna river found that most of the fishermen took loan from NGO. Islam *et al.* (2013) found in his survey that 46% involved in NGO's for loan and saving. There is almost similar to the present study.

Social capitals: Social capital refers the social networks and association in which people participate and from which they can drive support that contribute their livelihood. The sustainable livelihoods approach varies with different agencies though the approaches have many things in common but there are also some variation and difference in emphasize. From the survey it was found that 30% fishermen had received training about fishing and 70% fishermen had not received any training. Rishan and Fagun (2019) found 89% of fishermen had no any training in Habiganj sadar upazilla. So this is almost similar to the present study.

The focus of this research was to learn about the socioeconomic conditions of fishermen in the chosen location. The fishing villages in the study field were discovered to be from a disadvantaged group. They are persons from lower socioeconomic classes. The monthly income of fishermen was lower than the national per capita income. The fishermen's lives are filled with peril and exhaustion. The study will serve as a benchmark for future improvement of Bangladesh's

fishermen's livelihood in the north-eastern region.

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