

Livelihood Status of Fishing Community of Dhaleshwari River in Central Bangladesh

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Abstract

The study was conducted to investigate the socio-economic profiles of the fishermen of river Dhaleshwari in Tangail district, the central part of Bangladesh. There were found 65.71% illiterate respondents contributing 61.43% 35001 to 55000 BDT earners and 21.43% NGOs loan takers in the study. The study revealed that the fishermen of Dhaleshwari river were mostly illiterate, poor income, lack of training exposure and lack of awareness about their health facilities and sanitation. So, provide soft term loan and building people awareness have been suggested to improve the livelihood status of fishermen in Dhaleshwari river in Bangladesh.

Keywords

Livelihood Status, Fishing Community, Dhaleshwari River, Central Bangladesh

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1. Background

Bangladesh is called a riverine country due to the presence of a large number of rivers. This river, their tributaries and distributaries flow through the country constituting a water way of the total area about 22,155 km [1]. The rivers are offering immense scope and potentiality for augmenting fish production and socio-economic security of the people living around. This sector provides 1.78 million people's full-time and part-time employment facilities [2]. It plays an important role in the national economy of Bangladesh through employment generation, poverty alleviation, supply of animal protein and foreign exchange earnings [3]. This sector also contributes about 60% of the national animal protein in-take and 19% of the total protein in-take in the average Bangladeshi diet [4]. For subsistence fishermen and their families, the fish they catch is often their only source of

protein and essential minerals.

Fish and fisheries are indispensable part in the livelihoods of the people of Bangladesh and it is the part of our cultural heritage [5]. Livelihood is made up of the capabilities, activities, and assets (including both material and social resources) that contribute to a means of living [6]. According to Chambers and Conway livelihood comprise the capabilities, the assets (natural, physical, human, financial and social), the activities and the accesses to these that together determine the living gained by the individual household [7]. Livelihood status of fishermen mostly depend on fisheries resources. Fishing is the main source of income of the river adjacent fishermen household. But the fishermen cannot catch fish properly due to economic, social and technical constraints. Thus, the socio-economic conditions of the fishermen are not so good. They are not capable to earn sufficient amount of money to meet basic needs [3].

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Fishermen community is deemed to be one of the most vulnerable communities in terms of their livelihood opportunities in Bangladesh [8]. In Bangladesh, fishermen are very important communities, they lives hand to mouth and considered as the poorest among the poor [9]. Most of the fishermen are deprived of many amenities. All the times they have to struggle to survive, so, livelihood status of fishing community is not satisfactory at all [10]. The Dhaleshwari River system is one of the major river systems of Tangaildistrict. It has great influence on fish biodiversity and socio-economic status of fishermen. Many families are directly involved in fishing and earning to maintain their livelihood by fishing throughout the year. For proper development of fishing community, it is essential to understand the baseline information to initiate proper developmental steps and improve the livelihood of fishermen. But, there is no sufficient information about livelihood of fishermen community in Central part of Bangladesh. However, few studies on socio-economic conditions of fishermen were carried out but all these efforts lack specific information of livelihood [10-13]. There are very few studies has been done on the socio-economic condition of rivers dwelling fishermen in different part of Bangladesh [9, 10]. Therefore, the current study was conducted to assess the socio-economic conditions of the fishermen of Dhaleshwari river in the central part of Bangladesh.

2. Methodology

2.1. Study Type

The study was a cross-sectional study.

2.2. Study Population

There were taken total 70 fishermen selected from thevillages surrounding theDhaleshwaririver. Both the professional and subsistence fishermen living around the area of Dhaleshwaririver of central part of Bangladesh.

2.3. Study Duration

The study was conducted from March 2014 to October 2014.

2.4. Sampling Procedure

The simple random sampling method was used to frame the target population from the study places.

2.5. Data Collecting Technique

A planned questionnaire was developed containing both the closed and open ended query to collect data through face-to-face interview with the respondents. The questionnaire was pretested in areas far away from the sample areas and revised

according to the feedback gained in the field level. The questionnaire was formed to obtain the relevant information considering socio-demographic condition, income of fishermen and family members, factors affecting the livelihood of the respondents and other relevant aspects of river fisheries.

2.6. Data Verification

The questionnaire was checked per day taking the interview and gain these were carefully rechecked after collecting all the data and coded prior the entrancing into computer technology. The data was edited in case of sighting discrepancy (doubt entry, wrong entry etc.)

2.7. Statistical Analysis

The data were processed to undergo statistical analysis using SPSS 17 windows program. Microsoft Word, Microsoft Excel were used to represent the tabular and chart icon.

3. Results

Most of the respondents (42.86%) belong to the age group of 20-30 years while 78.57% were Muslims, 65.71% were illiterate. It is also found that 67.14% lived in joint family and 54.28%had 5-6 family members (Table 1).

Table 1. Socio-demographic characteristics of the respondents.

Parameters	Frequency	Percentage
Age (years)		
<20	2	2.86%
20-30	18	25.71%
31-40	30	42.86%
41-50	17	24.28%
>50	3	4.29%
Religion		
Muslims	55	78.57%
Hindus	15	21.43%
Family type		
Nuclear	23	32.85%
Joint	47	67.14%
Family size (members)		
2-4	12	17.14%
5-6	38	54.28%
>7	20	28.57%
Educational status		
Illiterate	46	65.71%
PSC	22	31.42%
SSC	2	2.86%

Table 2 presented that 64.28% respondents hadtin shed house with bamboo (only roof was tin) while 55.71% had drinking water facilities from own tube-well and most of them (61.43%) hadkacha sanitary latrine, 10.0% hand no sanitary

facilities and 65.71% took health services from village quack while 17.14% had electricity facilities.

Table 2. Housing, health and sanitation facilities of the respondents.

Parameters	Frequency	Percentage
Housing condition		
Tin shed with bamboo, only roof was tin	45	64.28%
Tin shed with tin, both roof and surroundings built by tin	15	21.43%
Straw, completely built by straw houses	10	14.29%
Drinking water facilities		
Own tube-well	39	55.71%
Government tube-well	23	32.86%
Neighbors tube-well	8	11.43%
Sanitary Facilities		
Kacha	43	61.43%
Semi pakka	20	28.57%
No sanitary facilities	7	10.0%
Health services taking from		
Kabiraj	12	17.14%
Village quack doctor	46	65.71%
Upazila health complex	10	14.29%
Outdoor chamber of the MBBS doctor	2	2.86%
Electricity facilities		
No facilities	58	82.86%
Had access to electricity	12	17.14%

Table 3 showed that, most of the respondents (72.86%) were engaged in fishing while 61.43% respondents had annual income 35001 to 55000 BDT. It is also found 38.57% took loan from neighbors and most of them (47.14%) were land less while 50.0% respondents thought they were facing fish marketing problem for interference of intermediaries.

Table 3. Socio-economic and livelihood dimensions.

Parameters	Frequency	Percentage
Occupation		
Fishing	51	72.86%
Agriculture	7	10.00%
Daily labor	12	17.14%
Annual income (BDT)		
25000 to 35000	20	28.57%
35001 to 55000	43	61.43%
>55000	7	10.00%
Credit access (Loan)		
Don't take loan	21	30.0%
From Neighbors	27	38.57%
From NGOs	15	21.43%
From Co-operatives	7	10.0%
Land properties		
Land less	33	47.14%
1-20 decimal	25	35.71%
>20 decimal	12	17.14%
Problems in fish marketing		
Interference of intermediaries	35	50.0%
Limited accessibility to market	22	31.43%
Poor supply of ice	13	18.57%

4. Discussion

Fishers are the essential suppliers of protein for the consumers in the country. But the fishermen are still deprived of basic needs and facing problems in their profession [17].

The study found most of the respondents (42.86%) belong to the age group of 20 to 30 years while 78.57% were Muslims and 65.71% were illiterate. It is also found 67.14% lived in joint family and 54.28% had 5 to 6 family members (It appeared that young and middle age persons in the range of 20-40 years was the highest (58%) and above 50 years was the lowest (20%) [14]. Most fishers (50%) belong to the age group of 31-40 years in the district of Mymensingh, Bangladesh. Similar results were also observed by adjacent to the Old Brahmaputra river where people of 50% were ranged between 31-40 years [9]. Age group of 35-40 years old was 30% and the largest age class was 40-50 years old (56%) at Birulia and Boroibari region [15], respectively in Turag river, Bangladesh. Religion can play a very important role in the socio cultural activities of people. It was well known that only the lowest caste of the Hindu community engaged in this sector [16] and found in their study that most of the respondents were Muslim (83.33%) and rest of them (16.67%) were Hindu at Rajoirupazila of Madaripur district, Bangladesh [10] noted in their study that Muslims were represented as absolute majority of fishermen in the study area (70%) in Tista river, Rangpur [6, 17] found that all of the fishermen were belonging to the Hindu religion in BaluharBaor, Jhenidah and Monirampur upazila, Jessore district in Bangladesh, respectively. In this study the type of family found was small compared to other areas and communities of Bangladesh. About 42.5% of the fishermen living in nuclear family and the rest (57.5%) in joint family were found in the district of Mymensingh [14]. Joint families found in maximum region in Rangpur, Gazipur and Mymensingh district in Bangladesh respectively and found that most of the fishermen (45%) belonged to the medium family (member 4-5) in Mymensingh district [9, 14, 18-20] and found the highest percentages (47.76%) of family had 7-8 members, the lowest percentage (1.27%) was obtained 1-2 members of MarjatBaor at Kaligonj in Jhenidah district, Bangladesh. But Small family (member <5) was found in majority (48%) in fishermen of the Baluhar Baor, Jhenidah, Bangladesh [17]. Education is the key determinant of the lifestyle and status in a society. The fishermen in the locality had varying level of educational background. Found majority of fishermen (60%) were illiterate in the MarjatBaor at Kaligonj in Jhenidah district [20]. Similar results also mentioned while working with the fishermen of the ChalanBeel and Monirampur upazila, respectively [6, 11]. Similar findings that 52.78% fish retailers had no formal education while working at Rajoirupazila of Madaripur district in Bangladesh [16]. The study presented that, 64.28% respondents had Tin shed house with bamboo (only roof was tin) while 55.71% had drinking water facilities from own tube-well and most of them (61.43%) had kacha sanitary latrine, 10.0% had no sanitary facilities and 65.71% took

health services from village quack while only 17.14% had electricity facilities. 72% and 32% fishermen in Birulia and Boroibari had *kacha* house while 28% and 68% fishermen in Birulia and Boroibari had tin-shed house, respectively¹⁵. Housing condition was dominated by *kacha* (74%) [17] where majority of fishermen in Old Brahmaputra River (83%) had *kacha* and 17% had semi *pakka* housing facilities [9]. The great majority (83%) had *kacha* and 17% had semi *pakka* house found in BaluharBaor, Jhenidah district that household of 100% fishermen used tube-well water for drinking and among them, 96% household used owned tube-well, and remaining 4% used neighbors tube-wells [10, 17]. 82% fishermen used deep tube-well water while remaining 18% collected water from other sources such as river, canal water etc. in MarjatBaor at Kaligonj in Jhenidah district, Bangladesh [20]. 40% fishermen had their own tube-well, 50% used shared tube-well and remaining 10% used neighbors tube-well [9]. The present study revealed that the sanitary conditions of the fishermen were not satisfactory in the study area where 60% of the farmers had semi pakka, 30% had *kacha* and 10% had no sanitary facilities in the Old Brahmaputra River fishing community [9]. 62.5% of the farmers had semi-pakka, 25% had *kacha* and 12.5% had no sanitary facilities in the Mymensingh district¹⁴ and similar result that 60% fishermen had *kacha* and 10% had semi-pakkatoilet and 30% had no sanitary facility in the Tista River fishing community [10]. The health facilities of the fish farmer in the Shahrastiupazila, Bangladesh were poor and 70% of the fish farmers were dependent on village doctors, while 20% and 10% got health service from upazila health complex and the MBBS doctors, respectively [21]. 84% of fishermen visit doctors whereas 2% of fishermen visit kobiraj and 14% of fishermen visit both doctors and kabiraj in Sirajgang district, Bangladesh [11] and health facilities enjoyed by the fishermen were not satisfactory in their study [9, 10, 14]. Generally fishermen took health suggestions from unskilled, non professional village quack doctor and kobiraj. Pattern of land tenure was one of the determinants of social and security situation and economic security [10]. According to the current study, most of the respondents (72.86%) were engaged in fishing while 61.43% respondents had annual income 3 5001 to 55000 BDT. It is also found 38.57% took loan from neighbors and most of them (47.14%) were land less while 50.0% respondents thought they were facing fish marketing problem for interference of intermediaries. Majority of the fishermen (46%) had landless, while 38% of them had 1-20 decimal lands and only 16% had above 20 decimal lands. Usually the landless fishermen live in government land (khas land) and they were unable to buy land due to very low income (Table 2). 2% fishermen were landless and land owned by the fishermen was 0.02 to 1.57 ha in Monirampur⁶ upazila of Jessore district, Bangladesh.

The average homestead area of fishermen were 8.75 decimal in Hatiyaupazila under Noakhali district of Bangladesh [22]. Around 82% fishermen had less than 31 decimal land including homestead in Rajoirupazila of Madaripur district, Bangladesh [16]. Revealed that 70% of the fishermen were engaged in fishing as their main occupation, 20% in agriculture and 10% in daily labor in the Old Brahmaputra River fishing community under Mymensingh district, Bangladesh and in Monirampurupazila that major primary occupation of fishermen was fishing and that was found 90%. Income is the most important factor for better understanding of the socio economic conditions of fishermen [6, 9], 11.63% fishermen in Birulia and 35% fishermen in Boroibari had a moderate annual income (30000-60000 BDT) in the Turag River fishing community [15]. Revealed that about 60% of the fishermen had annual income between 24000 to 35000 BDT and 30% of the respondent had income in the ranged 35001 to 45000 BDT in the Old Brahmaputra River [9]. 18600 to 27400 BDT annual income of the fisherman community of DahiaBeel under Natore district, Bangladesh and in the Old Brahmaputra River fishing community that 40% of fishermen were self sufficient and they did not need to financial help but 14% borrow money from their neighbors, 18% from relatives, 22% took loan from NGO's and 6% from cooperatives for their fishing business which was similar to the present findings [9, 12]. Considering the overall study, it felt that the establishment of educational institute and development of transportation system and sanitary facilities and preservation facilities are needed to ensure the development of the fishing community.

5. Conclusion

The socio-economic condition of the fishermen in the Dhaleshwari river adjoining areas was not satisfactory. The children's education level was very poor due to awareness lacking and poor income of the respondents. The government as well as various NGOs should take steps to upgrade their livelihood status in the country. The overall status of the fishermen is in need of care as ours is riverine country.

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