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Socio-economic aspects of fisher communities in Kafrikhal *Beel* under Mithapukur Upazila, Rangpur, Bangladesh

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Abstract

The survey was conducted to determine the socio-economic aspects of fisher communities in Kafrikhal *beel* under Mithapukur Upazila, of Rangpur district, Bangladesh. Data were collected from 80 fisher communities for a period of six months from January to June, 2014. It was found that fishing were the main occupation of the studied area where the literacy rate has been very low. Most of the fisher communities have been 25 to 34 years old. The income of fisher communities had been 40,000 to 60,000 Tk./year. The prime causes for the poor socioeconomic condition for the fisher communities were decreasing to catch fishes, lack of capital, inadequate credit, lack of appropriate gears, lack of training facilities, lower child education facilities, lack of electricity facilities, instability in the price of fishes and natural calamities. It was reported that, about 17 % fisher communities had been shifted to agriculture during banned periods of fishing.

Keywords: Fisher communities, Kafrikhal *beel*, Socio-economic condition

1. Introduction

In Bangladesh wetlands (*beels*) are highly productive environments that involved the socio economic status of millions of poor people. Fishers are traditionally poor and that fishing is considered to be a low-class profession [9]. Fisher communities are one of the most vulnerable groups in Bangladesh. The millions of rural people have depended on flood plains, *beels* (deep depressions where water remains yearlong), rivers, haors (big depressions or low-lying floodplains and other wetlands for food and income. About 80% of rural households catch fish for personal consumption or sale [20]. The area of inland open water capture fisheries is 3.91 million hector which contribute in the total fish production of the country is 9, 95,805 metric tons [7]. *Beels* are the most principal source of inland capture fisheries. About 1, 14,161 hectares areas of *beels* remain which production is 92,678 metric tons [7]. A large portion of rural family members are engaged in part time fishing from the *beels* [8]. In Bangladesh, total fish production has increased about 1.5 folds in 10 years, from just over 24,40,011 metric tons in 2006-07 to 36,84,245 metric tons in 2014-2015 [7]. Bangladesh is a major producer of inland fisheries. The country is fortunate to have a vast area of inland water resources such as rivers, *beels*, canals, ponds and estuaries from where it is getting over 83.72% of total fish production [7]. About 6 million peoples are directly or indirectly engage in this sector [7]. A large portion of rural family members are engaged in fishing from the *beel* and other open water bodies. 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 [3]. Being an isolated community fishermen are deprived of many amenities of life. A livelihood is sustainable when it enables people to 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 [6]. Kafrikhal *beel* has great contribution on fisheries and socio economic of the fisher communities of Mithapukur Upazila as well as the entire fishing communities. It plays a very important role in view of income, employment generation and supporting to the poor fisher communities. But enough information regarding status of the fisher communities are unavailable. The present study is therefore, an attempt with an aim to investigate the socio-economic condition of the fisher communities of this area.

2. Materials & Methods

The present work carried out on the base of socio economic aspects of fisher communities in Jalalpur, Edgarpur and Horiarpur adjoining area of Kafrikhal *beel* under Mithapukur Upazila of Rangpur district. No study was conducted previously in this area. At first, primary information was collected from District Fisheries Officer (DFO), Rangpur, Upazila Fisheries Officer (UFO), Mithapukur and ADC (Revenue) regarding the socio economic aspects of the fisher communities. On the basis of this information, a preliminary survey was conducted in the study area. Finally, decision was taken for the study of this *beel*. The survey was conducted with prepared questionnaire. The survey was done on the basis on family size, community age, marital status, religion, educational status, gender, experience and advice received, training, social status of fisher communities, house pattern, drinking water facilities, health facilities, sanitation facilities, cooking fuel, electricity facilities, occupational status, land properties, annual income of the fisher communities, credit access, fish marketing system, fishing nets and gear used etc. Primary data from 80 fisher communities 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 at home near *beel* sites during fishing. Secondary data included relevant information on socio-economic status of fishermen were collected through literature, publications and quarterly and annual reports available from Upazila Fisheries Office. All the collected information were accumulated and analyzed by MS-Excel and then presented in graphical forms to understand the socio economic aspects of the studied area.

3. Result & Discussion

3.1 Social aspect

3.1.1 Family size and types

The fisher communities in Kafrikhal *beel* area were divided into four categories according to family sizes. About 55% of the fishermen had small family with 3 to 4 members, 30% had medium family with 5 to 7 members, 12% had large family 8-10 members and 3% had very large family 11-13 members (Fig: 1). Whereas most of the fishermen (45%) belonged to 4 to 5 member's family in Mymensingh district [4]. This variation might be the result of geographical differences. The family size of the fish farmers varied from 0 to 7 with an average of 6.48 [10].

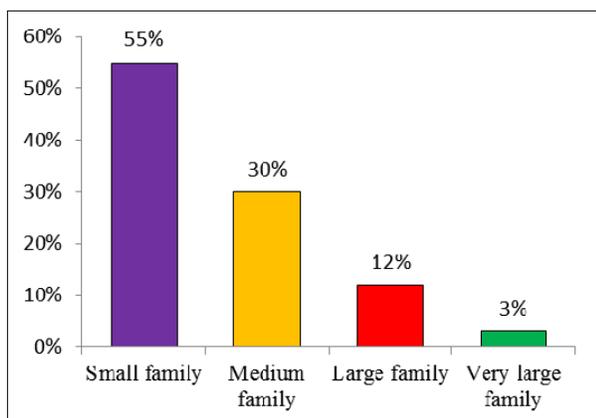


Fig 1: Family size

3.1.2 Community age

It was found that the fisher communities were classified into three grouped such as 65.5% had 25 to 34 years old, 29.5% had 35 to 55 years old and 5% had 18 to 24 years old (Fig: 2). About 66% fisher communities were 40 years old in Tangail [1]. Most of the fish farmers (50%) belong to age group of 31 to 40 years in Mymensingh district [4].

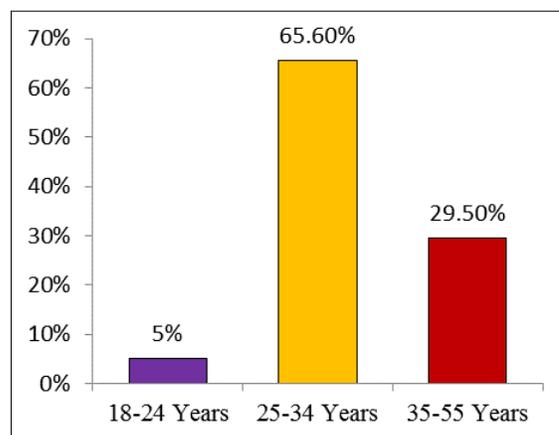


Fig 2: Communities age

3.1.3 Marital status

In the survey area, it was found that 87% of fisher communities were married and 13% were unmarried respectively.

3.1.4 Religion

Majority of the fisher communities were Muslims. About 97% and 3% *beel* fisher communities were Muslims and Hindus respectively (Fig: 3). About 87% and 13% riverine fishermen were Muslims and Hindus in Jamuna river in Sariakandi, Bangladesh [16]. About 66.67% and 33.33% fishermen were Muslims and Hindus in Dhunat, Bogra district respectively [18].

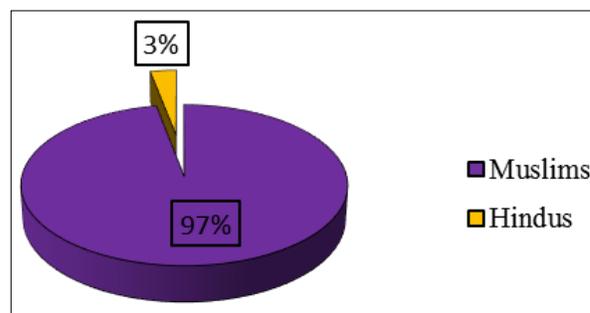


Fig 3: Religions

3.1.5 Educational level

The BBS classifies literate persons as those who can write a letter in any language. In the study area, it was recorded that 39.5% fisher communities had no education, 35.5% had up to primary, 12.5% passed S.S.C, 9% passed H.S.C and only 3.5% passed bachelor (Fig: 4). About 68% of *hoar* fishermen were illiterate, 28% up to primary level and 4% had only secondary level education [15]. The reported literacy rate was found lower than the national adult literacy level (71%) [5].

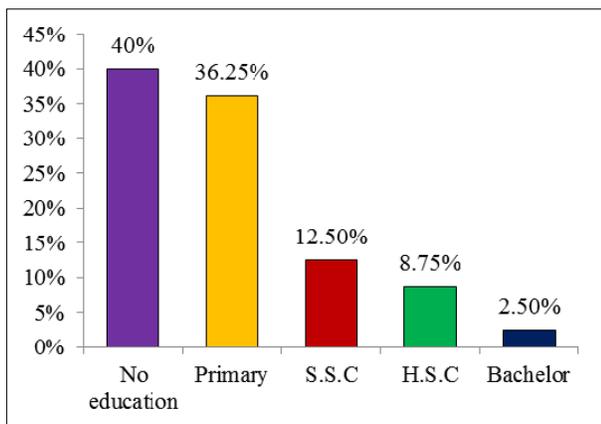


Fig 4: Education level

3.1.6 Gender

In fisher communities, girls typically get married between the ages of 13-15 years. This study informed that about 95% of cooking and 97% of washing have been done by females. Males remain engaged in fishing and non-fishing activities for eight to ten hours a day, while housewives are busy for fifteen hours or longer each day maintaining the entire household. Rural women in Bangladesh have long been an unrecognized contributor to economic productivity [1].

3.1.7 Experience and advice received

In the study area, it was observed that 60% of the fisher communities acquired their experience from pioneer fisher, 20% gained experience from friends and neighbors, 3% from education, 7% from DoF and 10% obtained experience from NGO's (Fig: 5). In Gazipur district about 49% farmers gained fish farming experience from friends and neighbors [17].

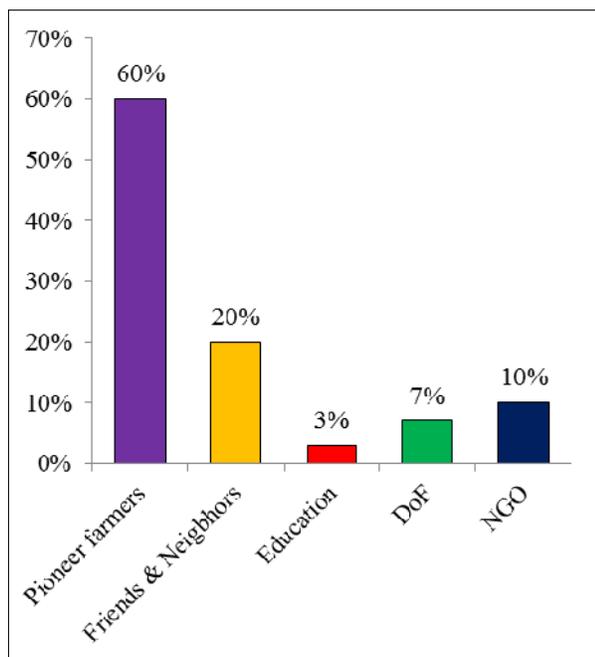


Fig 5: Experience and advice received

3.1.8 Training

In the study, of the total (80) interviewed fisher communities, 25.5% respondent receiving training and 74.5% were no

receiving training about socio-economic aspect (Fig: 6). About 49% farmers received formal training on prawn farming in Mymensingh area [17].

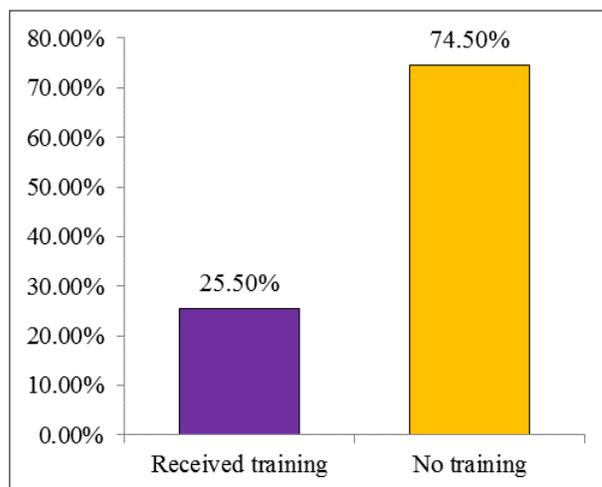


Fig 6: Training

3.1.9 Social status of fisher communities

In the study areas, most the fisher communities 88% were ordinary social status, 9% were local leaders and 3% were respectable persons in the society.

3.1.10 House pattern

Housing type is one of the most important indicators of the economic status of the fisher communities. From the survey, it was found that 55% had *kacha* house with tin roofing, 29% had house with straw roof, 11% had *semi-paka* house and only 5% had *paka* house (Fig: 7). 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 [2].

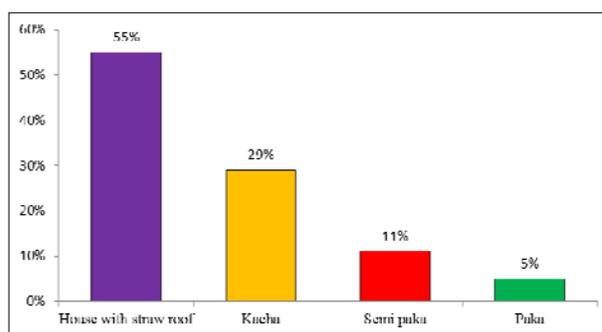


Fig 7: House pattern

3.1.11 Drinking water facilities

During the survey it was found that 100% of fisher communities had access to tube-wells for drinking water. About 65% of fisher communities had own tube-well and 35% of them collected drinking water from neighbors tube-well. 100% fisher- men's household used tube-well water for drinking purposes, among them 40% had their own tube-well, 50% used shared tube-well and remaining 10% used neighbors tube-well [13].

3.1.12 Health facilities

The study showed that 67% fisher communities were

dependent on village doctors (unqualified practitioners), while 25% and 8% got health services from the upazila health complex (MBBS doctors) and others respectively (Fig: 8). It was more or less similar to the findings [4].

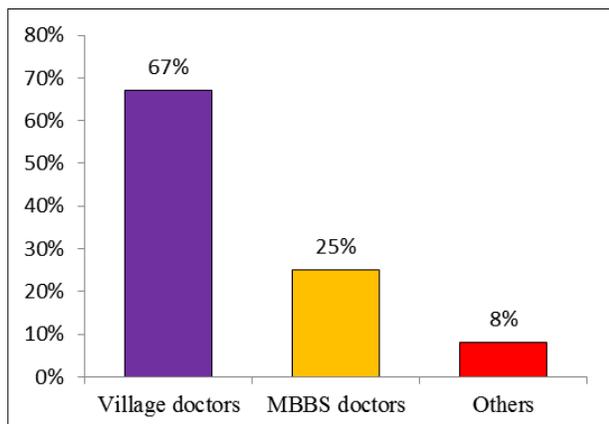


Fig 8: Health facilities

3.1.13 Sanitation facilities

In the study area, it was observed that fisher communities in Kafrikhal *beel* were very poor sanitary conditions. About 70% fisher communities were used *katcha* toilets, 24 % were *semi-paka* toilets and 6% were *paka* toilets respectively (Fig: 9). About 16% of toilets were *katcha* while 64% and 20% were *semi-paka* and *paka* [14]. There were some dis-similarities due to geographical variation.

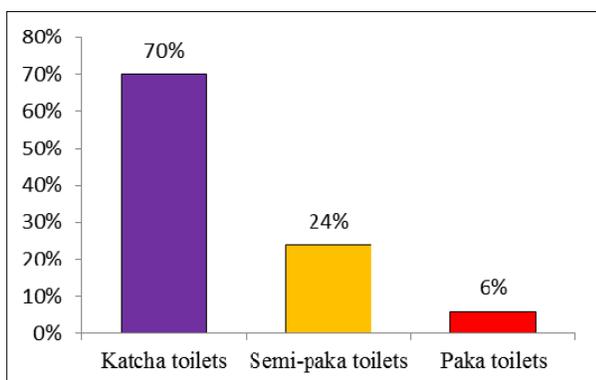


Fig 9: Sanitation facilities

3.1.14 Cooking fuel

In the study areas, 90% were used wood as cooking fuel, 2% were used cow dung and 8% were used cow dung mixed respectively.

3.1.15 Electricity facilities

From the present survey, it was found that there were no electricity facilities for the fishermen similarly [16].

3.2 Economic aspect

3.2.1 Occupational status

From the data collected, it has been observed that fishing is the most common occupation of the fisher communities in the Kafrikhal *beel*. The present study was revealed that 50% had

engaged in fishing as their only income source. However 30% had engaged in agriculture with fishing, 10% had daily labor along with fishing, 5% had involved in livestock rearing whereas 5% had engaged in small business with fishing (Fig: 10) which was more or less similar to the findings [11].

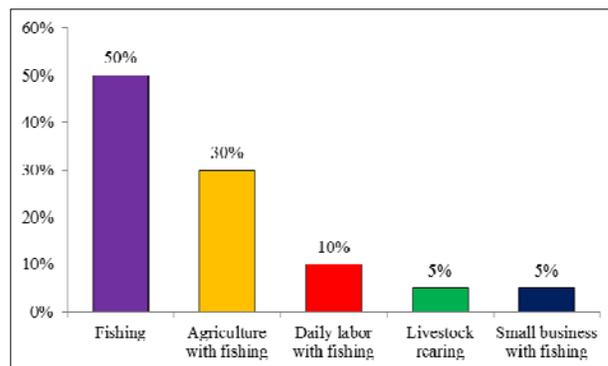


Fig 10: Occupational statuses

3.2.2 Land properties

During the study area, it was observed that fisher communities have been classified into four categories depended on their land properties such as 65% had land less (only house land), 22% had small farm land (10-20 decimals), 10% had medium farm land (21-33 decimals) and 3% had large farm land (34-40 decimals) respectively (Fig: 11).

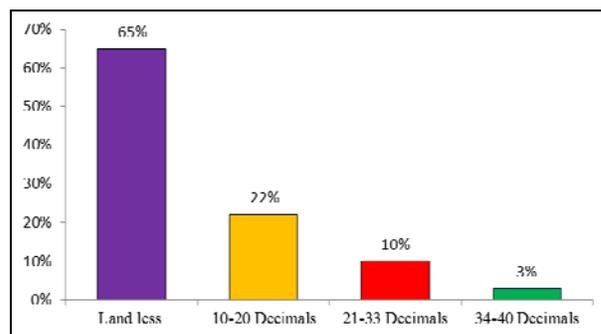


Fig 11: Land properties

3.2.3 Annual income of the fisher communities

Based on annual income, the fisher communities in Kafrikhal *beel* were classified in to three categories. It has been observed that 55% of fisher communities had low income (Tk.40-60 thousand), 30% of fisher communities had medium income (Tk 61-90 thousand) and 15% of fisher communities had high income (Tk 91-120 thousand) (Fig: 12). In Tangon river found that, the majority (55%) of the fishermen belonged to the medium income (Tk. 36,000-60,000) group, followed by 25% of the fishermen in low income (Tk.10,000-35,000) and only 20% of the fishermen had income in the range of (TK. 61,000-90,000) [12]. It was observed that about 17 % fisher communities had been shifted to agriculture as prime business during banned periods of fishing.

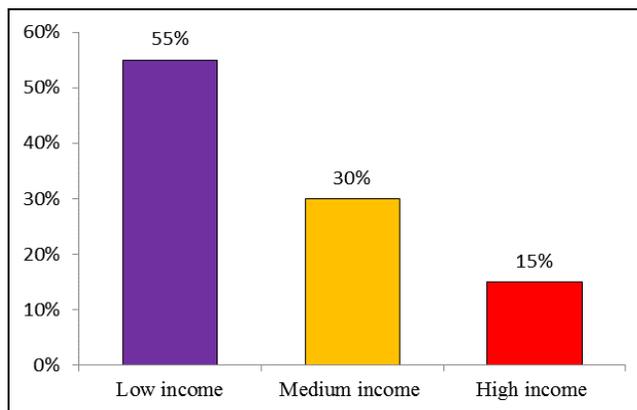


Fig 12: Annual incomes of the fisher communities

3.2.4 Credit access

In the study area, there have been many national and local NGOs like Grameen bank, BRAC, Asha, Proshika, TMSS, Karithash etc. They have provided credit only to poor fisher communities to purchase fishing gears and boats. After repayment only 35% became self-sufficient who did not need financial help but 10% borrow money from their neighbors, 20% from relatives, 30% from NGO and 5% from cooperatives for their fishing business (Fig: 13) which was similar to the findings of [2] in Natore district.

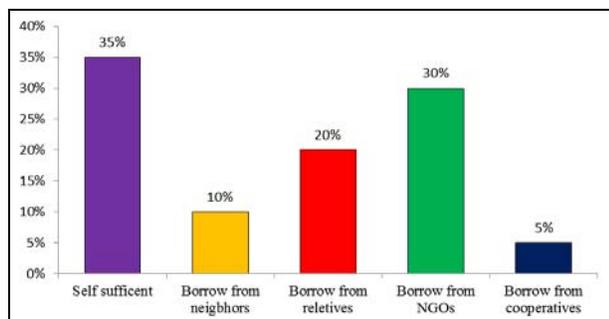


Fig 13: Credit access

3.2.5 Fish marketing system

From the survey it was found that 15% sold their captured fishes to the consumer directly whereas 85% sold their fish to either retailer or other farmer. The present findings are in agreement with the observation [19].

3.2.6 Fishing nets and gear used

Several forms of nets and gears have been used in the Kafrikhal beel by the fishers as cast net (*Jhaki jal*), lift net (*Dharma jal*), trap (*Bair, Chandi bair, chai*), sein net (*Ber jal*), gill net (*Current jal*), drag/push net (*Moiya jal*), push net (*thela jal*), gill net (*poa jal*), hook and line (*Chip borshi, Chara borshi*), etc similarly [16]. About 7 types of gears, 8 types of trapes, 5 types of hooks and spears used in the capture fishery of beel Dakatia [21].

4. Conclusion

Fisher communities lead a miserable livelihoods. They earn very poor income. No good educational institutes in the study area. So why, some educational institutes should be establish in the adjacent study area. The studied areas are situated far away from city and Upazila town and due to lack of nearby

market; they have to depend upon the wholesalers and middlemen for their fishes to be sold. As a result they did not get the genuine price that they should get for the fishes. Establishment of a suitable fish market near the study area by the DoF can be a solution of their deprivation. The Government should take some important management policy as well as providing of some alternate income generating activities and VGF cards during the ban season of the fishing. Some forms of NGO's activity must be ensured in the adjacent area for the improvement of the life leading status of the fisher communities. Loan facilities as well as health facilities have to increase by the government assistance to ensure the sound socio-economic condition of the fisher communities.

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