



## STUDY ON THE SOCIO-ECONOMIC CONDITIONS OF THE FISHERMEN IN TEKNAF

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### ABSTRACT

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Study was conducted on the socio-economic conditions of the fishermen in Teknaf to evaluate fishermen livelihood and social status for a period of one year from March, 2014 to April, 2015. Data were collected in terms of income generation, age distribution, housing, literacy rate, health and sanitation facilities of the fishermen. Fishing was regarded as the major source of income of the traditional fishermen but occasionally they undertook a variety of non-fishery related activities, which constituted a substantial part of their annual income. Among 105 fishermen interviewed, 59.25% were below 30 years, 29.62% were between 30 and 39 years, and the remaining 11.11% were more than 40 years old, and their literacy level was 62.96% illiterate, 18.51% can write their names, 14.81% had received education up to primary level and 3.70% had received secondary education. Income distribution showed significant inequality between marginal and non-marginal fishermen from group fishing. The national and local NGO like BRAC, ASA provided credit only to the organized poor members to purchase fishing gears and boats but the amount of credit provided by the NGOs was insufficient and could not commensurate to the poor people's actual need. The present study revealed that sanitary conditions of the fishermen were very poor that 25% fishermen have semi-constructed and 10% of the fishermen had no sanitary facilities. Most of the fishermen (65%) have un-constructed sanitary facilities. The present study suggested that there is a clear need to legalize fishing profession and their settlement as well as traditional fishing communities should be given priority in getting necessary supports from all concerns.

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## INTRODUCTION

Fish and fishing business is an important sector of many nations of the world from the standpoint of income generation and employment generation. Fishing plays an important role in supporting livelihood worldwide and also forms an important source of diet for over one billion people. Fisheries sector plays an important role in the economy of Bangladesh by contributing to the national income, employment and foreign exchange. According to Rao *et al.* (1988), fish is a valuable source of protein and occupies a significant position in the socio-economical fabric of South-Asian countries.

In Bangladesh, a lot of people are engaged in fishing activities in the Teknaf region as a source of their livelihood. Teknaf coast has grown considerably over the period and playing a very important role in the local economy, employment generation, foreign exchange earnings, food security and livelihood of the local community. So, it is essential to identify and evaluate marine fishery resources with mode of utilization, which will bring sustainable developments and improve the livelihood condition of concern stakeholders in Teknaf. Taking all the aspects into account the current research activity was undertaken to study the socio-economic conditions of the fishermen in Teknaf.

## MATERIALS AND METHODS

### Study Area

The study was conducted in Teknaf region because an appreciable number of people are engaged in fishing activities in this area.

### Data Collection

Primary data were collected by field survey that involved the investigation of the people in terms of income generation, age distribution, housing, literacy rate, health and sanitation facilities of the fishermen. Data were collected for a period of one year from March, 2014 to April, 2015 where a total of 105 fishermen were interviewed.

### Data Collection Methods

#### Questionnaire Survey

For questionnaire and interviews, fishermen were selected through simple random sampling. A total of 105 fishermen were interviewed during the study period. Interviews were conducted at different time of the day. The interviews focused on socio-economic conditions of the fishermen in terms of income generation, age distribution, housing, literacy rate, health and sanitation.

#### Participatory Rural Appraisal (PRA)

PRA is a group of methods to collect information in a participatory basis from rural communities. The advantage of PRA over other methods is that it allows a wider participation of the community, the information collected is likely to be more accurate (Chambers, 1992; Nabasa *et al.*, 1995). This study used PRA tool: focus group discussion (FGD) with fishermen and associated groups. Among the 105 fishermen interviewed 70 were male and 35 were female (Figure 1). A total of 7 FGD sessions among different groups containing 5 females and 10 males were conducted in the study and duration of each FGD was approximately two hours.

#### Data Processing and Analysis

After the collection of data they were scrutinized and carefully edited to eliminate possible errors and inconsistencies contained in the schedules. After completing the pre-tabulation task, the primary data were entered, processed and analyzed through simple statistical methods using Microsoft excel.

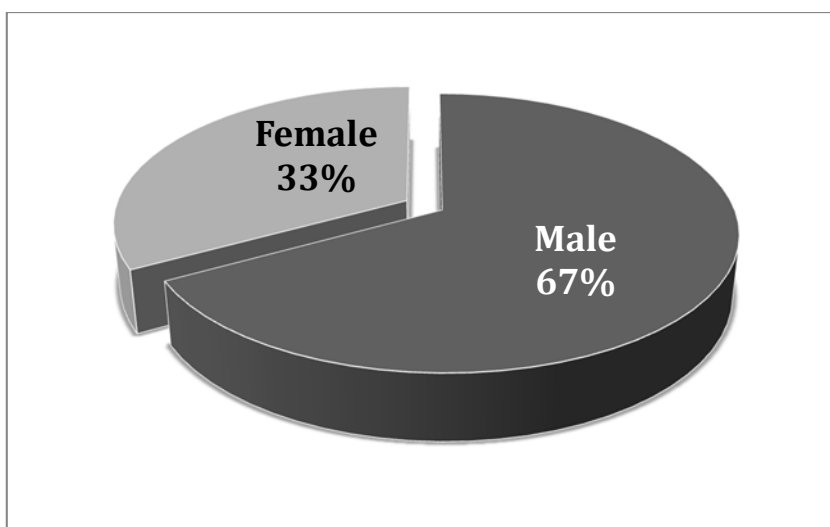


Figure 1. Percentage of sex ratio in the study area

## RESULTS AND DISCUSSION

The study was conducted on the socio-economic conditions of the fishermen in Teknaf region. Emphasis was given on income and living standard, housing condition, age and family members, family size, literacy and education, occupational status, credit access issues, sanitary facilities of the fishermen.

### Income and living standard:

Although fishing is the major and, in some cases, the only source of income of the traditional fishermen, the fisher folk occasionally undertake a variety of fishery related and non-fishery related activities, which constitute a substantial part of their annual income (Table 1). Their income augmenting opportunities, however, are very limited. Fishery related activities carried out in the study area include fish marketing and trading, gear and craft maintenance and repair etc. There are very limited options for non-fishery related activities such as wage labor in the other sectors like agriculture, construction, livestock and poultry raising, etc. It was found that, about 76.4% of total income comes from fish and fishery related activities and a fisherman earns about 40,000 taka per year. Rest 23.6% of total income comes from non-fishing activities and a farmer earns about 10,000 taka per year.

Table 1: Average annual income of fishermen from fishing, fishery and non- fishery related activities

Sources of income	Income of(TK) per year	% of total income
Fish and fishery related activities	30,000	76.4%
Group fishing		
Fish marketing		
Net lending		
Non –fishing activities (Agriculture)	10,000	23.6%

Mazumder et al. (2014) conducted a study on socio-economic condition of fishermen in Jelepara under Pahartoli of Chittagong district. They interviewed 50 fishermen and found that 20% fishermen's yearly income was found BDT 50000-70000, 48% fishermen's yearly income was between BDT. 71,000-1,00,000 and 32% fishermen's yearly income was found above BDT 1,00,000. They included the income coming from fishing activities only whereas the present study investigated the income coming from both fishing and non-fishing

activities. Chowdhury et al. (2011) conducted a study on the income and living standard of the fishermen in the Teknaf peninsula of Bangladesh. They found that about 82% of total income comes from fish and fishery related activities and rest 18% comes from non-fishing activities. It is not very unusual to obtain most of the income sources from fisheries related sector for the people inhabiting in the coastal basin. The result is almost similar to the findings of the present study.

### Housing condition

Most of the fishermen lived in very poor housing conditions. From the survey, it was found that 25% households of the fishermen were tin shed with bamboo. 60% households were tin shed with tin wall, 14% households were containing of straw components and 1% household were containing building, respectively (Figure 2). Mahmud et al. (2015) interviewed 50 fishermen and found that 14% were lived in the house made by straw and soil, 62% were lived in the house made by tin, wood and soil, 20% were lived in the house made by brick and tin and 4% were live in Building. In our study, the small size was more than double than the study conducted by Mahmud et al. (2015). Nevertheless, their findings support our results to a considerable degree. Hossain (2002) conducted a study on the housing conditions of the fishermen in Teknaf. They found that about 30% households of the fishermen were lived in tin shed with bamboo, 55% households were in tin shed with tin wall, 13% households were containing of straw components and 2% household were containing building. The results are an index of below living standards of the people involved in fishing. The documented data are still more or less in similar conditions with the data recorded 14 years ago by Hossain (2002). This indicates the living standards of the fishers of the Bay of Bengal changes nothing but decreases a bit in comparison with the previously collected data.

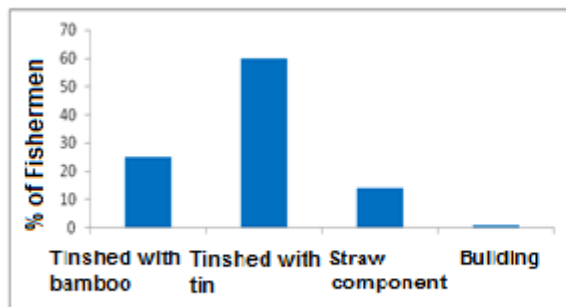


Figure 2. Housing condition of the fishermen

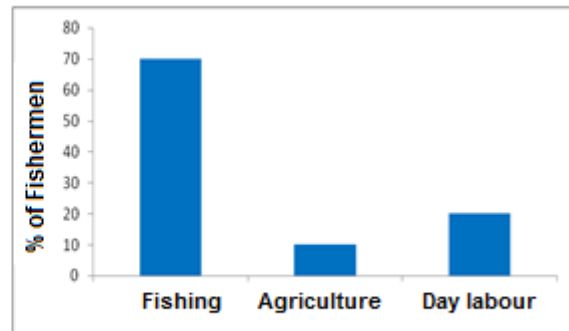


Figure 3. Occupational status of the fishermen

### Age and family members

Age and family members of the fishermen were also interviewed. From the interviews it was found that 65 fishermen (59.25%) were below 30 years old, 34 fishermen (29.62%) were between 30 and 39 years, and the remaining fishermen (11.11%) were more than 40 years old (Table 2). The result indicated that the middle age groups are involved in fishing activities. Ahmed (1999) in coastal region reported 66% and 70% under 40 years age, respectively. The Bangladesh Bureau of Statistics (BBS, 1998) reported that fishing households in Bangladesh have higher family size than the national average. Mursheduzzaman (2007) reported that age group of 31-40 years was the highest (50.00%) and 41-60 years was the lowest (17.00%) and 21-30 years was 33% within considering 250 fishermen. The tendency of lower percentage in the higher age groups may be for the unavailability of advanced medical facilities as well as higher prone to the natural calamities. The recorded results here is more or less similar to our study.

### Literacy and education

From the survey, 64 fishermen (62.96%) were found to be illiterate and cannot write their names, 20 fishermen (18.51%) were semi-literate who only can write their names, 17 fishermen (14.81%) had received education up to primary level and 4 fisherman (3.70%) had received secondary education, respectively (Table 3). Rahman, et al. (2012) reported that among 100 fishermen, 66.66% were illiterate while 16.66% had primary education and another 16.66% can sign only in the Nijhum island under Hatiya upazilla of Noakhali district in Bangladesh. Inadequate consciousness and lack of educational infrastructure in the

concerned area are the prime reason of the lower literacy rate. BBS, 2011 classifies literate persons as those who can write a letter in any language. Mazumder et al. (2014) found that among the 50 fishermen, there was no H.S.C and S.S.C passed people. 16% had passed class five, whereas 14% fishermen were can sign only and 70% were illiterate. The result is almost similar to the previous studies.

**Table 2.** Family size of the fishermen in the study area.

Family Size	% of total fishermen
Small Family(2-4)	10%
Medium Family(5-7)	60%
Large Family(8-10)	30%

**Table 3.** Educational status of fishermen in the study area.

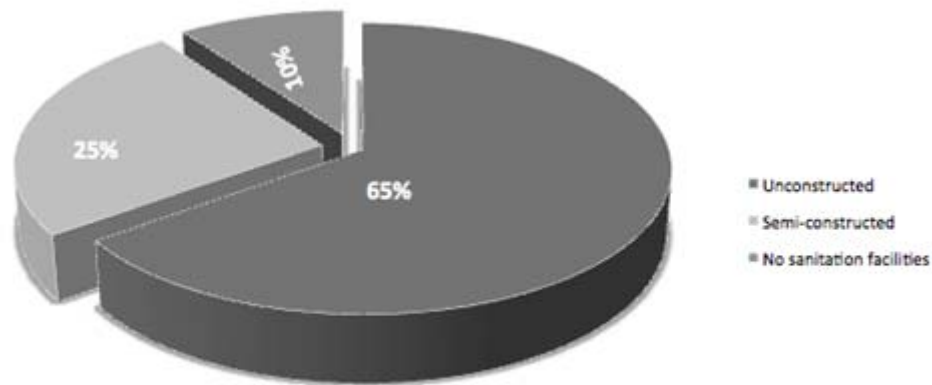
Educational status	No. of fishermen (n=105)	% of total fishermen
Illiterate	64	62.96
Capable to sign only	20	18.91
Primary	17	14.81
Secondary	4	3.70

#### Occupational status

The present study has also revealed that 70% of fishermen are engaged in fishing as their main occupation, 10% was in agriculture and 20% in daily laborer as in other business (Figure 3). Mahmud et al. (2015) that the main occupation of the people among 50 fishermen were fishing (86%), while 14% were secondary occupation. This result supports our findings to an acceptable level. Haque (2008) described the selected characteristics of coastal fishermen and their participation in alternative livelihood activities. Alternative livelihood activities were crop cultivation, vegetables cultivation and fruits cultivation in field/homestead and reported that 80% of fishermen were engaged in fishing as their main occupation, and rest 20% of fishermen engaged in non-fishing activities. As the study area supports a large scale of marine fisheries of the country, fishing, unsurprisingly the primary occupation for the adjacent people.

#### Sanitary Facilities

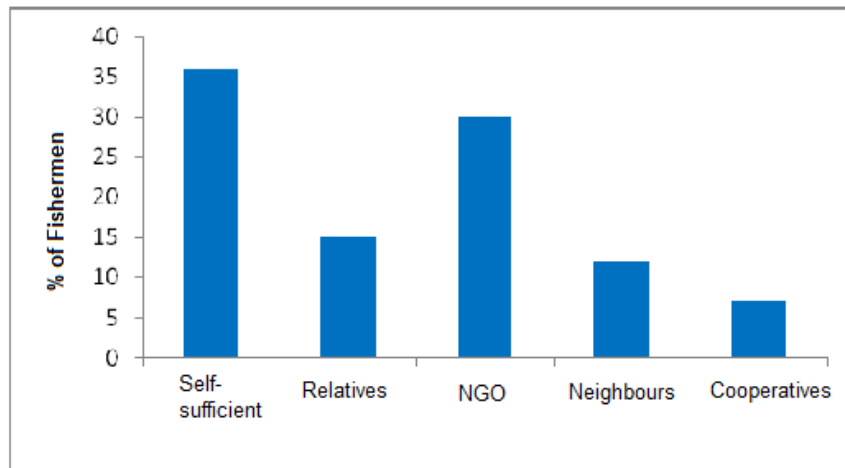
The present study revealed that sanitary conditions of the fishermen were very poor that 25% fishermen have semi-constructed and 10% of the fishermen had no sanitary facilities. Most of the fishermen (65%) have un-constructed sanitary facilities (Figure 4). Mahmud et al. (2015) found that among the 50 fishermen, on an average 13 (26%) household used unconstructed sanitary facilities, 26 (52%) household used semi-constructed sanitary facilities and only 3 (6%) household used constructed sanitary facilities. But 8 (16%) had no sanitary facilities that they use agricultural land, crop field, canals, bushy area and hidden place. The result indicated that there is a greater degree of similarities with our findings. Rahman et al., (2012) reported that 95% households used un-constructed sanitary facilities in the Nijhum Island under Hatiya upazilla of Noakhali district in Bangladesh. The poor income of the concerned fishers in the present study area mainly led them to build such unhygienic sanitary facilities. Besides lack in the common people motivation is another vital reason for such conditions in the study period.



**Figure 4.** Sanitary facilities of the fishermen in the study area

#### Credit access issues

The national and local NGO like BRAC, ASA provide credit only to the organized poor members for purchase fishing gears and boats. They have taken loan at 15% interest from ASA and BRAC, 12% interest from landlord. This interest rate varies from season to season. It is often argued that the amount of credit being provided by the NGOs is insufficient and is not commensurate to the poor people's actual need. After repayment only 36% became self-sufficient who did not need financial help but 12% borrow money from their neighbors, 15% from relatives, 30% from NGOs and 7% from co-operatives for their fishing business (Figure 5).



**Figure 5.** Sources of credit facilities of the fishermen

#### Constraints in the fishing community

Socio economic constraints such as household family pressure, low income, illiteracy, low economic status and lack of alternative employment opportunities are the main problems for marine fisheries development. The offered credit facilities from different GOs, NGOs are insufficient to meet their needs. Besides, in receiving such credit facilities they need to pay high interest. These socio economic factors are affecting marine resources. Fishermen are also facing problems on child education, nutrition, cooking fuel, animal feed and house building materials. Almost all fishermen mentioned lack of capital and the increasing fishing pressure as their main problems. The fishermen of Bangladesh are socially disadvantaged and lacking in fulfilling their basic needs (DFID, 1998). According to Rahman (1994), fishermen were below the poverty line and were struggling to survive, with health, nutrition, sanitation, water supply, soil fertility, cooking fuel, animal feed and house building materials as their day-to-day problems.

## CONCLUSION

The implication of this study is that the socio-economic conditions of fishermen in Teknaf were not satisfactory. The fishermen were deprived of many amenities. Fish production and fish fauna of the area was being drastically reduced due to environmental and manmade activities such as over-fishing, using restricted gear indiscriminate use of fishing gears and as a whole due to absence of management policy. In the event of decreasing fish resources in Teknaf peninsula, supplementary income from other than fishery is of great importance. Goat and sheep rearing, cow rearing, home based vegetables, agriculture, small business etc. are identified as important alternative income generating sources for male whereas, handicraft, net making and duck and poultry rearing are especially identified for women. So, necessary step should be taken by GOs and NGOs to assist the fishermen to adopt these alternative income-generating sources.

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