

# **Trends of Socio-economic Changes and Potentials of Indigenous Fishermen Communities in Some Selected Areas of Bangladesh**

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## **a. Objective of the Study**

The objectives of the study were to:

- (i) explore the present socio-economic conditions and trend/ change of fishing community;
- (ii) assess the indigenous knowledge and skills related to fish culture;
- (iii) find out the key barriers and driving forces in changing trend of occupation; and
- (iv) recommend the possible potentialities of their present socio economic condition.

## **b. Study Methods**

The study was conducted in five different indigenous fishermen communities that were relatively fresh water prone areas in Dhaka and Chittagong Divisions. The sample size of the study was 250 as primary respondents and two stages stratified random sampling method was used. The first stage was *Upazilas* (sub-district) of selected districts and the second stage was the villages. After selecting villages, all the households of indigenous fishermen were listed by villagers. From this list, a total of 50 indigenous fishermen from each of the selected villages were selected by using simple random sampling technique. In addition data were also collected from the representatives of local level institutions like Community Based Organization (CBO), Local NGOs, *Union Parishads* (UPs), concerned *Upazila* officials and Chairmen or Vice Chairmen of *Upazila Parishads* (sub-district office). For primary data collection the study followed direct interview method by using pretested structured questionnaire from the indigenous fishermen of the five selected areas. Collected data were compiled, tabulated and analyzed according to the research objectives. Primary data were processed for statistical inferences including quantitative and qualitative analysis with careful observation. The qualitative data was processed manually. Tabulation and analysis of data were carried out after collecting, editing and processing the same. Data were interpreted mostly using descriptive mode of analysis and using average, percentage, graphs etc.

### **c. Major Findings**

The study findings reveal that there are wide range of social discriminations in terms of income, occupation, land ownership, literacy rate, independency ratio, age at marriage and getting the government facilities in the study areas. About 90 percent of the respondents have no agricultural land and nearly 92 percent of the respondents have limited access to fishing practices. They are involved in fishing by giving labour to non fishermen communities' water bodies, transporting and selling fish. Along with that they are increasingly being forced to change their profession due to limited or no access to water body. About 28 percent of the fishermen with a number of difficulties were continuing their livelihoods depending on catching fish and most of them are labourers. Literacy rate of indigenous fishermen is still insignificant. After secondary education the access to tertiary education is very much limited and in Bagdi community no respondents were found having education above Secondary School Certificate (SSC). About one forth (25.69%) of the fishermen were youth but most of the youth were found interested in going abroad instead of running their traditional fishing business. In the changing circumstances of the socio economic status of the fishermen communities, most under the study were found poorer among the poor but almost all the fishermen (96%) confessed that they were deprived of the government safety net supports and other government and non-government supports.

Indigenous fishermen communities are rich in ecological knowledge on fishing. The fishermen communities of Dhaka and Chittagong divisions (sweet water based) mentioned that 43 different species of fishes were available in nature and out of them nearly 14 different species of fishes were endangered through extinction in near future. All respondents thought that summer is the best growing season for fish species and there are 17 types of fishes capable of reproduction in water bodies. Fish can also be used for curing the diseases like blood deficiency, gas-embolism, malnutrition, blindness, gouts, tumour etc. Some fishes are totally prohibited for eating and catching from the religious point of view. But now-a- days some of the prohibited fish species are caught randomly and sold in the markets. The fishermen have knowledge on water bodies and fish species of a particular place. The fishermen have identified 9 carnivore fishes and about 80 percent of the respondents mentioned that there is some utility of cultivating the carnivore fish for its highly reproductive capacity and faster growth. The fishermen feel that they had glorious past, and

have knowledge on fish wise diseases and their symptoms and preventions. About 36 percent of the fishermen mentioned that water quality deterioration is the prime factor for fish mortality. Fish sanctuary is needed for the enhancement growth of fish but nearly 85 percent of the respondents viewed that now-a-days it is rear practice. Training is another mechanism for better fish cultivation but 96% of the respondents had no training. About 66% of the respondents listened to radio for weather and aquaculture news.

All indigenous fishermen communities develop intimate, detailed, and functional knowledge of the fresh water ecosystems and main species of fishes they target for harvesting. Nearly 90% of the respondents are still involved in any forms of fishing directly or indirectly. Still they have good knowledge on traditional fish catching instruments but they have little knowledge on modern fish catching techniques or equipment. Fish diversity has been declining due to increased fishing pressure, destructive fishing methods, degradation of habitat of fishes by the accumulation of silt, and also shortage of the appropriate habitat in the dry season. Much of the habitat degradation problems have been caused by nearby fields being converted to agriculture, whereby silt and chemicals run-off can pollute rivers and lakes. In this changing situation in order to increase the socio-economic conditions of indigenous fishermen, about 24 percent of respondents mention that they need training for producing more fishes in their existing resources. About 24 respondents comment that lack of congenial environment is another problem for fish growth. Most of the fishermen are poor and for this reason about 23 percent of the respondents suggest that arrangement of loan or capitals for fish production are essential. About 17 percent of the respondents recommend that it is urgent to ensure their security and revive the endangered fish. About 80% of the respondents mentioned that three aspects for reviving the extinct fishes in the water bodies need to be considered and these are- re-dredging the canal, providing leasing facilities for indigenous fishermen, and establishing sanctuary in the swamps or bogs areas. About 20% of the respondents mentioned that it is possible to revive the extinct fishes in the contemporary situation through creating awareness.

As the findings relating to the policy implications indicate, leasing out or creating access to the *Jalmahal* (open water bodies) and skill development training for alternative income generation for the periods when fishing is restricted are essential for the fishermen. There should be government and NGO sponsored training and social welfare activities directed to the poor fishermen for increasing their awareness of fishing laws, health and sanitation,

conservation of fishes, and other social issues. Donor agencies may take initiatives to investigate this further and adopt measures accordingly in order to make them more effective and fruitful. Indigenous fishermen cannot improve their livelihoods due to local money lending trap. The creation of special banks or other financial institutions can help them to get loans for developing their livelihoods and reducing unfair money-lending and exploitation. There is an urgent need to re-excavate the canals and rivers for enhancing the capacity of water bodies and reviving the indigenous fishermen communities.