

## Livelihood Status of the Fishermen of the Turag River, Bangladesh

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**Abstract:** The present study was conducted to assess the livelihood status of fishing community in Turag River area, Bangladesh. Data were collected by using well-structured questionnaire from the selected area. The study revealed that most of the fishermen were belonging to the age groups of 35-40 years old (30%) in Birulia and 40-45 years old (56%) in Boroibari, majority featured by Hindus. Most of the fishermen were illiterate both in Birulia and Boroibari. All of the fishermen in Birulia received loan from various microcredit NGO namely ASA, GRAMEEN, ADESH and in Boroibari all of the respondent fishermen were the beneficiaries of various management program like IPAC. About 63% fishermen in Birulia and 35% fishermen in Boroibari had a moderate annual income (30000-60000 tk). About 33% fishermen in Birulia and 65% fishermen in Boroibari had a high annual income (above 60000 tk). The government does not provide any kind of supports for the betterment of the fishing community in both study areas.

**Key words:** Fishermen • Livelihood Status • Constraints • Turag River

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### INTRODUCTION

Bangladesh has established a credible record of sustained growth within a stable macro-economic framework where fisheries sector play an imperative and prospective involvement in agro-based pecuniary expansion, destitution easing, employment and delivering of animal protein and grossing the overseas exchange [1]. Fisheries sector contributes about 2.46% of the total export earning, 4.39% to GDP and 22.76% to agricultural sector. Annual fish production was 3.26 million metric tons in the fiscal year 2011-2012 [2]. Fish also contributed about 60% to the nation's animal protein intake during 2011-2012. At present annual fish intake by an individual is 17.52kg and the annual fish demand is 29.74 metric tons. Therefore, it can reduce its malnutrition problem by increasing the production of fish. Fisheries sector creates more than 1.65 million people employment opportunity [2]. A large portion of rural family members is engaged in part time fishing from the rivers and other open water bodies.

One of the most vulnerable communities in Bangladesh is a Fisherman who lives hand to mouth and they are considered as the poorest among the poor [3].

It was estimated that 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 as a whole. Being an isolated community Fishermen are deprived of many amenities of life [4].

Livelihood comprises the capabilities, the assets (natural, physical, human, financial and social capital), the activities and the accesses to these (mediated by institutions and social relations) that together determine the living gained by the individual household. A livelihood is a sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in future, while not undermining the natural resource base [5]. For sustainable rural development and poverty elimination, different approaches had been adopted and the sustainable livelihood approach has been gradually expanded with its own core and principles for poverty focused development activities [6]. The approach mainly based on the fundamental principle analysis of capital assets in the context of the external environment. A sustainable livelihood is a way of thinking about the objectives, scope and priorities for development, in order to enhance progress in poverty elimination [7].

The Turag River is the upper tributary of the Buriganga, one of the most important ecosystems with much aquaculture potential. The entire regime of the Turag River is almost a semi-funnel shaped basin and a total area of 386 square miles. Water covers about 10,000 ha at full flood, but diminishes to less than 700 ha at the end of the dry season [8]. This flood fishery plays a very important role in alleviation of rural poverty and supplying food to the poor fishing community. However, socio-economic status of this Fisherman is not satisfactory; production of fish in this river is also declining day by day. Considering the above fact, the present study was carried out to assess the livelihood status and constraint faced by the Fishermen in the area.

### MATERIALS AND METHODS

This study was conducted for a period of 9 months from July 2012 to March 2013 in two different villages namely Birulia under Savar upazilla of Dhaka district and Boroibari under Kaliakoir upazilla of Gazipur district along the Turag River.

The study was based on collection of primary data. Before collecting the primary data, a draft questionnaire was developed which was pre-tested with few Fishermen. In this pre-testing, much attention was given to any new information in the draft questionnaire in order to reach the objectives of the study. According to the experience gained in pre-testing, the final questionnaire was improved, rearranged and modified. The final questionnaire included the questions on the socio-demographic condition, income of Fishermen, family size, family members and factors affecting the level of fish production of riverine fisheries etc. Data 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. All the collected information were accumulated and analyzed by MS-Excel and then presented in textual, tabular and graphical forms to understand the present status of the livelihood status and constraints of the Fishermen of the studied area.

### RESULTS AND DISCUSSION

#### Human Capital

**Age Structure:** In estimating potential productive human resources, the knowledge about age structure of Fishermen is important. Different categories of age groups

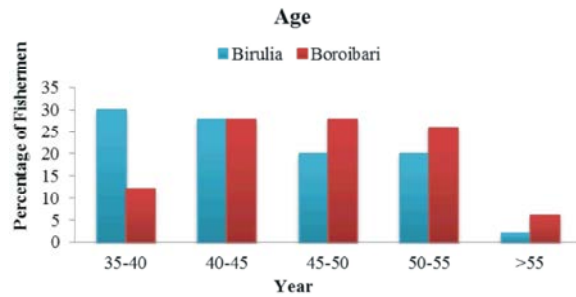


Fig. 1: Age group data of the Fishermen in the study area

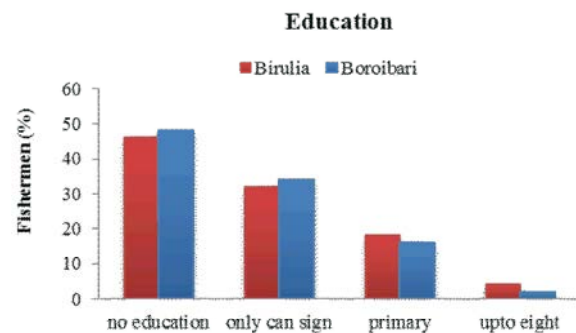


Fig. 2: Educational status of the Fishermen in the study area

were considered to examine the age structure. It appeared (Fig. 1) that age group of 35-40 years old was the highest 30% in Birulia whereas in Boroibari the largest age class was 40-50 years old (56%). Hossain *et al.* [9] reported that age structure of fishermen at Rajshahi district was ranged from 31-40 years (36.7%) which was similar with present study (Birulia). Bhaumik and Saha [10] reported that age structure of Fishermen at Sundarbans was ranged from 20 to 70 years which more or less agreed with the present findings.

**Educational Status:** Actually it is true that education is not an essential subject for fishing in the river, but chooses to follow and be aware and familiar with the latest technology and appropriate use of it, education is must. Besides, Human resource development is largely a function of education. Most of the fishermen of the selected area (Fig. 2) were illiterate (46% in Birulia and 48% in Boroibari), able to sign (32% in Birulia and 34% in Boroibari village) and had education up to primary level (18% in Birulia and 16% in Boroibari). Mahbubur [11] reported that 68% of hoar Fishermen were illiterate, 28% up to primary level and 4% had only secondary level education. Rahman *et al.* also reported on the fishers of Nijhum Dwip that 66.66% fishers were illiterate while 16.66% had primary education and another 66.66% can

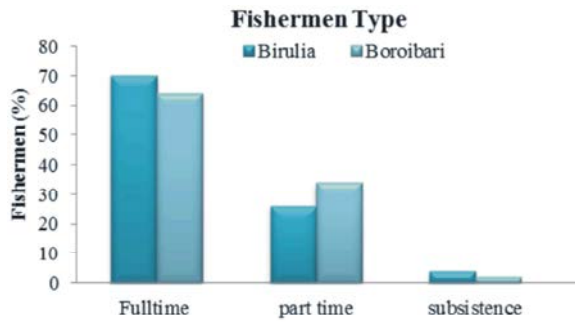


Fig. 3: Fishermen type in the study area

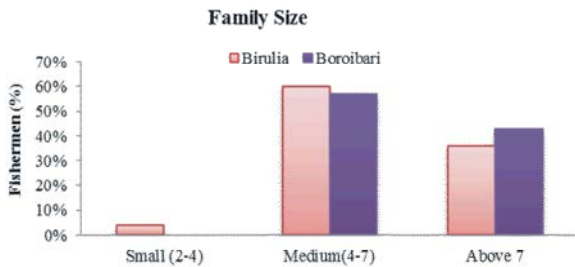


Fig. 4: Family Size of the Fishermen in the study area

sign only. The scenario of educational level of fishermen is not satisfactory as the Government tries to ensure 100% primary education for all the children. Besides, the reported literacy rate was found much lower than the national adult literacy level of 65% [13]. It happens because of lack of awareness, facilities etc.

**Fishermen Types:** The fishermen mainly depended on fishing for their income and nutrition and their income varied with their capability and quantity of the capturing fish. About 70% Fishermen in Birulia and 64% Fishermen in Boroibari were full-time Fishermen. About 26% Fishermen in Birulia and 34% Fishermen in Boroibari were part-time Fishermen (Fig.3). Among part-time fishermen, Many of them engaged in agriculture and day labour activities, Womens are mostly engaged in cloth making, rearing livestock etc.

**Religion and Marital Status:** Hindus were featuring as the absolute majority of the Fishermen. About 60% Fishermen in Birulia and 89% fishermen in Boroibari were Hindu. And rest of the fishermen were Muslim. It is well known that only the lowest caste of the Hindu community was engaged in this sector. Among the Hindus, the hereditary Fishermen are called Majhi, Jele or Halder. Hindu halder or Jele live in the place are called Majhi Para or jele para etc. Most of the respondent of both Birulia (98%) and Boroibari (96%) were married.

**Family Size and Types:** Family size is an important socio-economic indicator as it affects the income, food consumption and socio-economic wellbeing of the households. The family size of the Fishermen was divided into three classes as small, medium & large. From this research it was found that 60% fishermen in Birulia and 57% in Boroibari had medium family size with 4-7 members, 36% in Birulia and 46% in Boroibari had large, above 7 family members and only 4% fishermen in Birulia had small with 2-4 family members (Fig. 4). The family size is much smaller compared to others areas and communities of Bangladesh. It happened because they were economically poor, as the children are separated from their families when parents grown. The highest percentage (57%) of family size was medium (5-7 members) in Tista River Fishermen community [14], which was similar with the present study.

**Financial Capital**

**Credit access:** In the present study, particularly in Birulia it was found that all of the fishermen received loan from NGO’s (ASA, GRAMEEN, A DESH) for purchase fishing gears and boats. During banning period they took loan basically. Unfortunately, all of their profit during peak season were repaid for loan to this NGO. Finally, they could not upgrade their livelihood, remain poor as usual but had fall in trap of this commercial NGO business. In Boroibari (management area) the picture was different. All of the respondent fishermen were the beneficiaries of IPAC/MACH/RUG/RMG/NSP. They got training from such organisation and able to comparatively lead their livelihood better than Birulia (non-management area).

**Income:** A better understanding of the state of the livelihoods of fishermen, their income is the most important factor. About 63% fishermen in Birulia and 35% fishermen in Boroibari had a moderate annual income (30000-60000 tk). About 33% fishermen in Birulia and 65% fishermen in Boroibari had a high annual income (above 60000 tk) which was higher than the national average BDT 28,430 [15]. And only 4% fishermen in Birulia had low income (10000-30000 tk) (Fig. 5). Khan *et al.* [14] reported similar result for Tista river fishermen community like Birulia. Ali *et al.* [16] also reported, average annual incomes of majority of fish farmers in Hamirkutsha and Kamarbari unions of Bagmara upazilla under Rajshahi district were above Tk. 75,000 per annum which was more or less similar to the findings of present study.

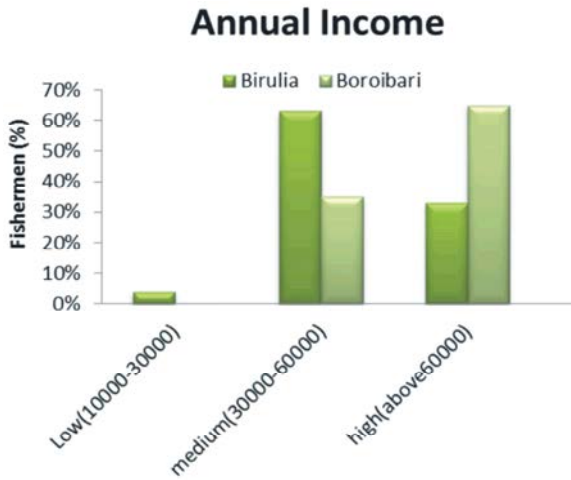


Fig. 5: Annual income of Fishermen in the study area

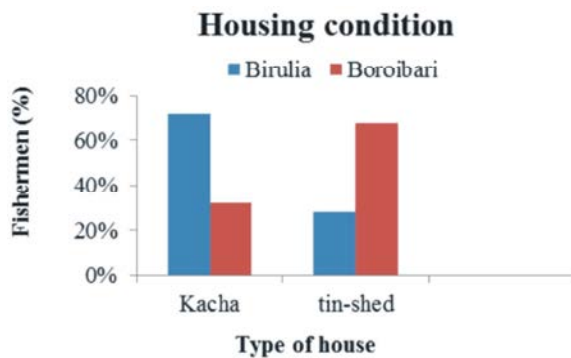


Fig. 6: Housing condition of Fishermen in the study area

**Natural Capital:** Natural capital of Fishermen represents the natural resources such as land, river, timber and wider environmental goods that are critical for operatives for their fishing business. Rapid population growth had to some extent led to accelerate natural capital depletion that had affected their income. Presence of canal, beels and existence of floodplains in the vicinity of the study area offer tremendous scope for harnessing natural resources for sustainable livelihood management of the fishing community.

**Physical Capital**

**Housing Condition:** The nature of house was indicates the social status of the people. 72% Fishermen in Birulia and 32% Fishermen in Boroibari had kacha, 28% Fishermen in Birulia and 68% Fishermen in Boroibari had tin-shed house (Fig.6). The housing condition of Boroibari much better than Birulia, because fishermen of Boroibari were economically more solvent. Kabir *et al.* [3] reported that majority of fishermen in Old Brahmaputra River (83% ) had kacha and 17% had semi pakka house

which was similar that Birulia. Ali *et al.* [16] reported, about 54% of the farmers in Hamirkutsha and Kamarbari Unions of Bagmara upazilla under Rajshahi district have tinshed house while 26%, 14% and 6% of the farmers have half-building, building and kacha house respectively which was more or less similar with Boroibari.

**Health Facility:** All of the Fishermen of both Birulia and Boroibari are dependent on village doctor whom have not proper health care knowledge. Because of both villages are near the megacity Dhaka, village doctor can prescribed the patient admitted in hospital in emergency case. Pravakar *et al.* [17] reported that health facilities of the fish farmer in the Shahrasti Upazila, Bangladesh were poor and it was found that 70% of the fish farmers were dependent on village doctors, while 20% and 10% got health service from upazila health complex and MBBS (Bachelor of Medicine, Bachelor of Surgery) doctors respectively.

**Drinking Water Facility:** The provision of clean and safe drinking water is considered to be the most valued elements in the society. 80% Fishermen in Birulia and 95% Fishermen in Boroibari used tube-wells for drinking purposes and 20% Fishermen in Birulia and 5% Fishermen in Boroibari used pond water both for drinking and household work (Fig. 7). Kabir *et al.* [3] found that 100% fishermen’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.

**Sanitation:** The present study revealed that (Fig. 8) 4% of Fishermen in Birulia and 10% of Fishermen in Boroibari had pit, 48% of Fishermen in Birulia and 30% of Fishermen

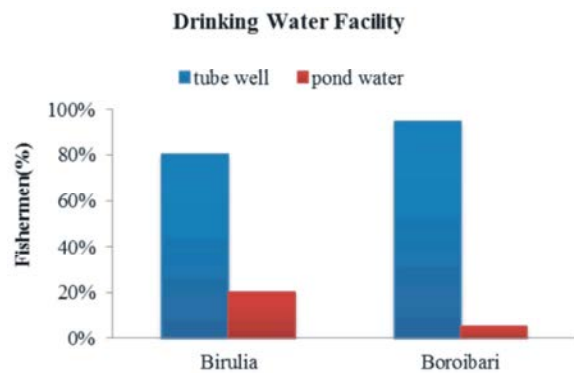


Fig. 7: Drinking water facility of Fishermen in the study area

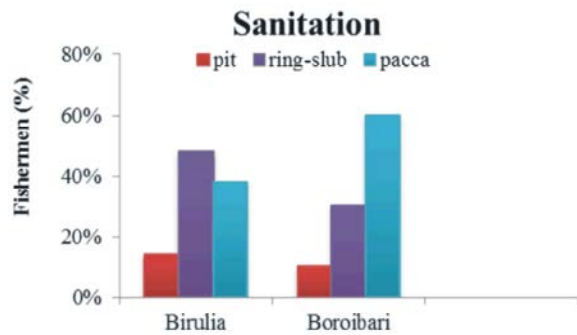


Fig. 8: Sanitation facility of Fishermen in the study area

in Boroibari had ring-slab and 38% of Fishermen in Birulia and 60% of Fishermen in Boroibari had pacca sanitation system which were relatively satisfactory like fishermen in Mymensingh district where Ali *et al.* [18] in his study found that 62.5% of the farmers had semi-pucca, 25% had kancha and 12.5% had pucca toilet.

**Fishing Equipments:** Several forms of nets are being used in the Turag River region by the fishermen as Poa jal, Dacon jal, Jhaki jal, Dharma jal, Current jal, Moiya jal, Ber jal, Thella jal, Bair, Chandi bair, Borshi etc.

**Socio-Economic Constraints of the Fishermen:** Most of the Fishermen are facing various problems during fishing and marketing their goods. The main problem was recognized as extortion by the local extortionist, other problems were inadequate credit facility, presence of aquatic vegetation, lack of marketing facilities, lack of knowledge of fishing, lack of appropriate gears and disturbances by dacoits and thieves and sometimes by the local people themselves. Again, overfishing by increasing population and exploitation of the Fishermen by moneylenders are imposing threat to livelihood of poor fishers [19]. Most of the Fishermen were very poor and they have limited resort to buy nets and other fishing equipment. They are neglected in all respect in the society. Most of them are illiterate and live from hand to mouth. Being very poor their children often go for fishing rather than going school. As a result, generation after generation they remain illiterate and not being able to contribute for the betterment of their community.

## CONCLUSION

The socio-economic condition of the Fishermen in the adjacent area was not satisfactory. The Fishermen were deprived of many amenities. The education level of

the Fishermen was so poor. Due to the lack of awareness as well as the poor income of the Fishermen families, the study of the poor Fishermen student doesn't go so far. The educational status should be improved in the adjacent area. So why, some educational institutes should be built up in the adjacent area. The Government should take some important stage by providing some sorts of management policy as well as providing of some extra providence during the ban season of the fishing. That may be done within the providing of the VGF card. Some forms of NGO's activity must be ensured in the adjacent area for the improvement of the life leading status of the Fishermen. The NGO's must be helpful about the providence of the loan which may be used for the up gradation of the income procedure. As well as health facilities should be ensured by the government assistance.

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