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Livelihood status of the fishing community of the Turag River, Dhaka, Bangladesh

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Abstract

Bangladesh is a riverine country. This study investigated the livelihood status of the fishing community of the Turag River adjacent to the Dhaka city during January to December, 2017. Data were collected by using well structure questionnaire from seven selected villages. Data were accumulated and analyzed by MS-Excel and then presented in textual, tabular and graphical forms to understand the livelihood status and constraints of the fishing community in adjacent to the area of the Turag River. This study showed that the highest number of fishermen was middle aged (31-40) group, 53% fishermen were illiterate, and 40% lived in tin-shed houses. It was revealed from the study that 20% of the fishermen used kacha sanitary and 66% went to village doctors for their treatment and 40% of the fishermen's monthly income was up to ten thousand and 5 hundred Taka. The livelihood status of the fishing community of the Turag River was not satisfactory. Concern authority should take initiatives for the development and betterment of the fishing community of the Turag River.

Keywords: livelihood status, fishermen, fishing community, turag river

Introduction

Fishermen are one of the most vulnerable communities in Bangladesh. They are poor by any standard and over the years economic condition of the fishermen had further deteriorated. Alam and Bashir (1995) [1] estimated the average per capita annual income of the fishermen families to be BDT 2,442 i.e. about 70% lower than the per capita income of the country as a whole. Most of the fishers live below the poverty line, and most work in teams as laborers/fishers. The wealthier fishers own the boats and nets. During fishing season, the fishers are dependent on fishing for their livelihood and do not have any alternative sources of income to support their families. Being an isolated community, fishermen are deprived of many amenities of life mostly in off season.

About 12 million people of the country directly or indirectly are involved in fisheries and other ancillary activities (DoF, 2013). Livelihood is sustainable when it can cope with stresses & shocks and maintain or enhance its capabilities to recover from it, while not undermining the natural resource base (Chambers & Conway, 1992) [3]. 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 (DFID, 1999) [4]. The approach basically based on the fundamental principle analysis of capital assets in the context of the external environment. Scoones (1998) [5] addressed that a sustainable livelihood is a way of thinking about the objectives, scope and priorities for development, in order to enhance progress in poverty elimination.

Fishermen villages are mostly located in inaccessible areas where there is no modern communication systems, having a very low developmental and socio-economic impact in community. There is no denying fact that fishermen and fishing community are as a whole the poorest and most disadvantaged group of Bangladesh (Hossain *et al.* 1997) [6]. They have no other income generating activities except fishing, which cannot be carried out throughout the year and in idle periods, they lack alternative employment opportunities. Their socio-economic development is negligible.

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. Fishermen are one of the most vulnerable communities in Bangladesh.

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They are poor by any standard and over the years economic condition of the fishermen had further deteriorated. Alam and Bashir (1995) ^[1] estimated the average per capita annual income of the fishermen families to be BDT 2,442 i.e. about 70% lower than the per capita income of the country as a whole. Most of the fishers live below the poverty line, and most work in teams as laborers/fishers. The wealthier fishers own the boats and nets. During fishing season, the fishers are dependent on fishing for their livelihood and do not have any alternative sources of income to support their families. Being an isolated community, fishermen are deprived of many amenities of life mostly in off season.

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Fishermen villages are mostly located in inaccessible areas where there is no modern communication systems, having a very low developmental and socio-economic impact in community. There is no denying fact that fishermen and fishing community are as a whole the poorest and most disadvantaged group of Bangladesh (Hossain *et al.* 1997) ^[6]. They have no other income generating activities except fishing, which cannot be carried out throughout the year and in idle periods, they lack alternative employment opportunities. Their socio-economic development is negligible.

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. Fishermen are one of the most vulnerable communities in Bangladesh. Most of them are poor, leading a pathetic life and live from hand to mouth. At present the number of fulltime fishermen is decreasing and they are trying to uplift their livelihood status by small scale businesses. For the 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 socio-economic status of fishermen community of the Turag River in Dhaka district of Bangladesh.

The fishery of the Turag River plays a very important role in alleviation of rural poverty and supplying food to the poor fishing community. However, livelihood status of these fishermen is not satisfactory. In these regards, the fish diversity and the livelihood status of the fishing communities adjacent to the Turag River is need to be checked. It is also very important to compile the available data and at the same time to consider the new data to understand the current status of the fish diversity and livelihood status of the fishing

communities on the Turag River. However, in depth published research work regarding fish diversity and livelihood of fishermen is scanty or few. So, considering the above views in mind the present research is a vital issue to investigate the livelihood status of the fishing communities living around the said river.

Materials and Methods

Study area

The survey was conducted in seven fishing villages near the Turag River. The fishing villages are situated under the Savar and Ashulia Thana under the Savar Upazilla.

Data collection process

Data were collected mainly by observation and survey methods. Surveys were of different types, such as 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. The survey was conducted over a period of one year from January to December 2017.

Questionnaire surveys

The study was based on collection of primary and secondary 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.

Primary data source

The primary data were assembled through field survey at the village level using a well structural questionnaire. Data were collected both by physical observation and interview with fishermen at house, field, fishing place and market.

Secondary data source

Further relevant information on socio-economic condition of fishermen were collected from books, thesis paper, journal, government and non-government organizations like as District Fisheries Office, Central Library, Jahangirnagar University, Savar, Dhaka.

Survey design

The present study had been undertaken and completed according to random sampling of 100 fishermen out of 500. The interview schedule for fisherman was divided into 3 sections, which mainly addressed the issues of personal and family details, fish catch and socio-economic status. The first section of the interview schedule was for personal information of the respondents and their families. The second section related to fish catching including income, marketing, credit access issues etc. The third section explored detailed information about farmer's conditions, employment, housing condition, drinking water, health, and other facilities. All the collected information were accumulated and analyzed by MS-Excel and then presented in textual, tabular and graphical forms to understand the impacts of fish diversity on the livelihood status and constraints of the fishermen community in adjacent area of the Turag River.

Result and Discussion

There were approximately 500 fishermen who were found directly or indirectly involved in fishing in the Turag River. A total of 100 fishermen were interviewed from various places like river side, house, fishing place, market, and field etc.

Area

Livelihood status of the fishermen was carried out in seven

villages under three unions under two thanas under one upazila under one district. The villages were Melartek (10), Eshakabad (3), Majhirdea (32), Bagichartek (10), Birulia (15), Ashulia (15) and Rustompur (15). The unions were Kaundia (55), Birulia (15) and Ashulia (30). The Thanas were Savar (70) and Ashulia (30). The upazila was Savar and the district was Dhaka (Fig. 1).

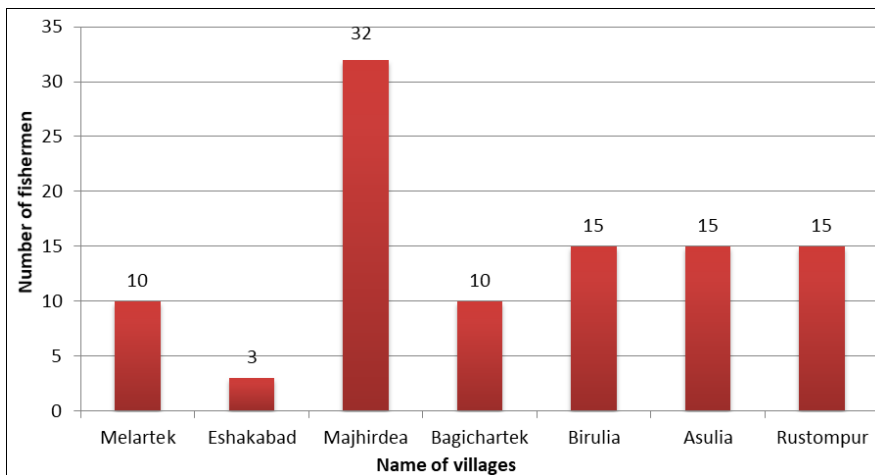


Fig 1: A graphical presentation of the number of villages of the studied area during the study periods.

Age group

Figure-2 showed that 2, 16, 43, 14, 11 and 14 of the fishermen were belonged to age group in 11-20, 21-30, 31-40, 41-50, 51-60 and 61-70 years respectively. Results showed that the

highest number of the fishermen were between 31-40 age group indicating middle age group which was the dominant in fishing due to their physical strength (Fig. 2).

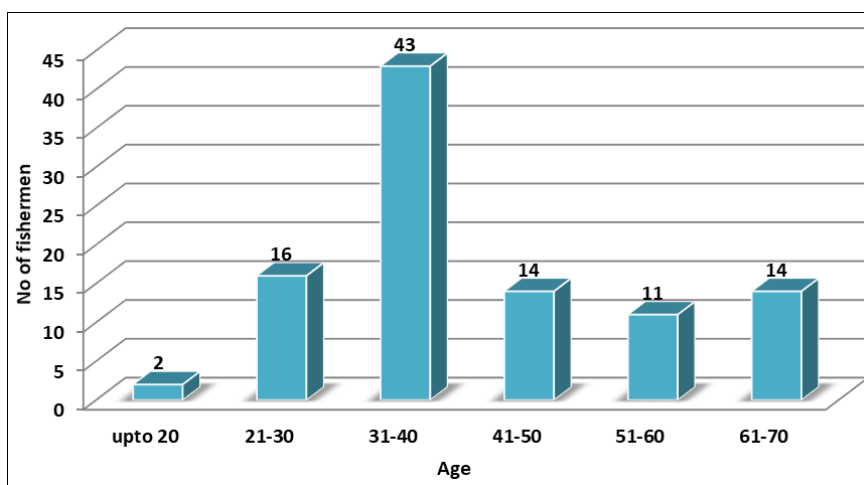


Fig 2: A graphical presentation of the age group of the fishermen of the studies are during study periods.

Mohammad Abdul Baki *et al.* (2015) [7] founded different categories of age groups in the Turag-Buriganga. The young (20-30 years), middle aged (31-40 years) and old (41-60 years) were considered to examine the age structure. It appeared that middle age (31-40 years) was the highest (48%) and old (41-60 years) was the lowest (20%) among all the fishermen that was similar to the present study.

Md. Ataur Rahman *et al.* (2015) studied 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%) of Talma River in the Northern Part of Bangladesh and also similar to the present study. Bijoya Paul *et al.* in 2013 studied in the Turag River that age group of 35-50 years old were the highest in the villages which was also similar with the present

study.

Sex

The present survey was conducted among the 100 fishermen usually involved the fishing of which 49.56% was male and 50.44% was female (Fig. 3). The females were involved in household works and they could not afford to go out for fishing due to trafficking and others social problems. Where, males were free from those barriers and engaged themselves in the river fishing. K. V. Basavakumar Karnataka (2011) studied that male population constituted a higher percentage (52.33%) than the female population (47.67%) in fishing whereas in the present study, the females were not involved.

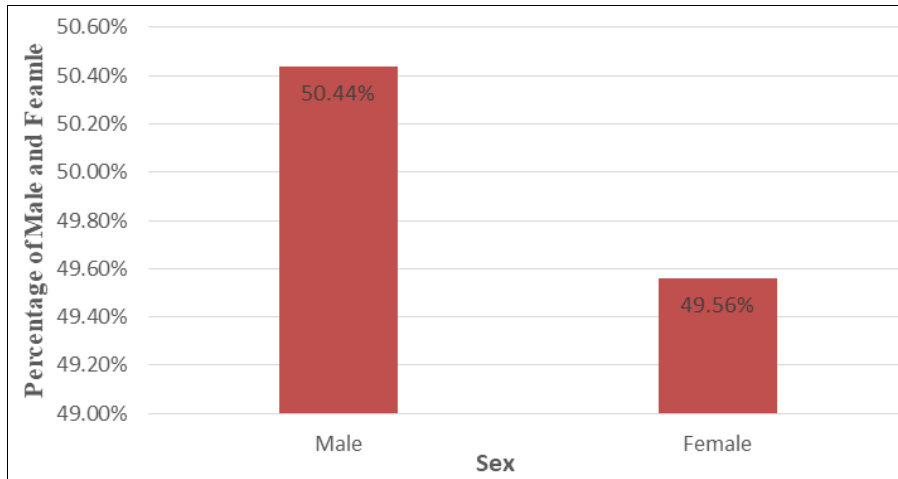


Fig 3: A graphical presentation of the percentage of male and female fishermen of the studies are during study periods.

Religion

Religion can play a very important role in the socio-cultural and environmental life of people and can act as a notable constraint modifies in social changes. Only 6% Muslim fishermen and 94% Hindu fishermen were found during the survey out of 100 fishermen, illustrated that the Hindu fishermen made up the major percentage of the people of the study area (Fig. 4). According to Bijoya Paul (2013) 74.5% fishermen were Hindu at the Birulia and Boroibari villeges of

the Turag River which was more or less similar to the present study.

S. M. Rahmatullah (2015)^[12] studied in the Jamuna River that majority of the fishermen (95%) were the Muslim and 5% of fishermen were Hindu with no Buddhist or Christian whereas the percentage was almost opposite to the present study. M. H. Ali *et al.* (2008)^[10] studied that maximum fish farmers were Muslim (94%) while small proportions (6%) were Hindus. This finding was also opposite to the present study.

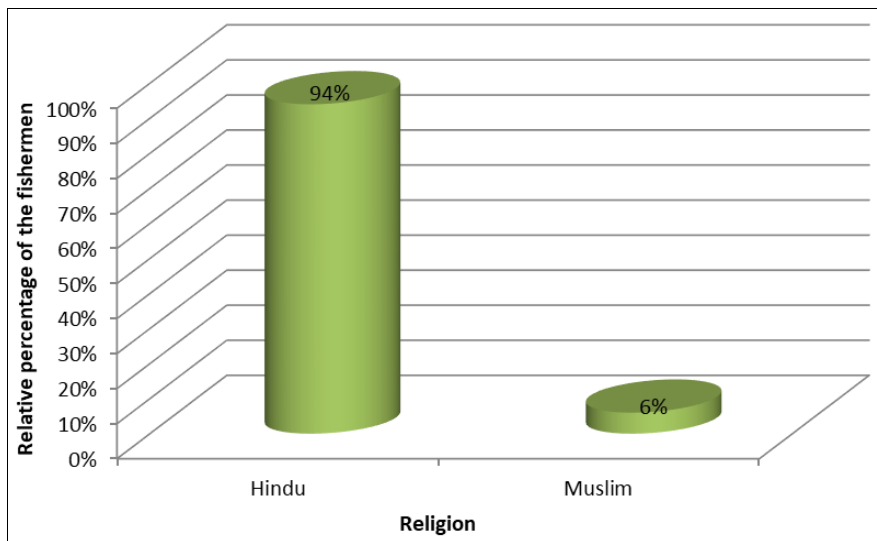


Fig 4: A graphical presentation of the percentage of Hindu and Muslim fishermen of the study during study periods.

Types of fishermen

In the present study, it was found that professional and occasional fishermen were 84% and 16% respectively in the studied area (Fig. 5). There were no fishermen of subsistence whereas S. M. Rahmatullah *et al.* (2015)^[12] studied that professional fishermen were 62%, occasional fishermen were

23% and subsistence fishermen were 15% of the Jamuna River which were not similar to the present study.

Bijoya Paul (2013) studied that 67% fishermen were full-time and 30% fishermen were part-time in the Birulia and Boroibari villeges of the Turag River which was not similar to the present study.

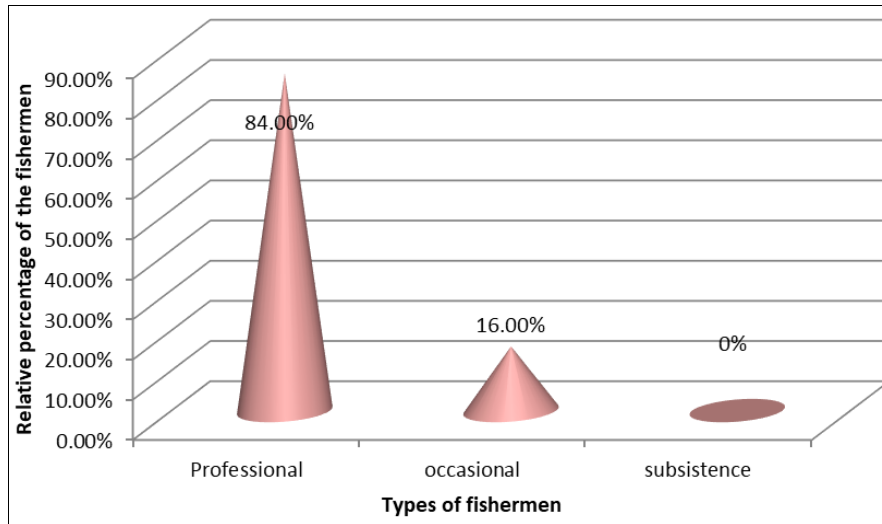


Fig 5: A graphical presentation of the percentage of marital status fishermen of the study during study periods.

Education level of fishermen

Though the 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.

The level of education in the study area was not good. In the study area it was found that 5% had education from VI to X, 20% was class I to V, 22% could sign only and 53% had no education (Fig. 6).

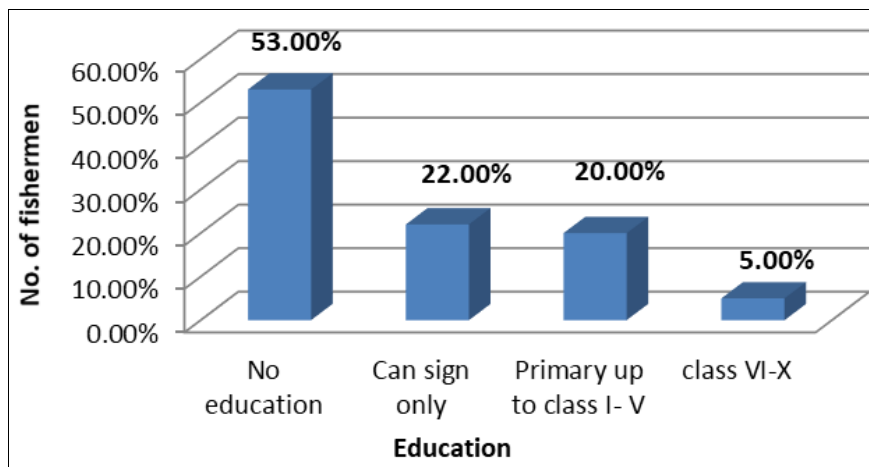


Fig 6: A graphical presentation of the percentage of the level of education of the fishermen of the study during study periods

Mohammad Abdul Baki *et al.* (2015) [7] studied that most of the fishermen of the Turag-Buriganga were illiterate (66%) only small portion of them had secondary level (6%), can sign only (12%), some had primary level of educated (16%) whereas In the present study, it was found that 5% had education from VI to X, 20% was class I to V, 22% could sign only and 53% had no education which were more or less similar to the present study. According to the study of Bijoya Paul (2013) most of the fishermen of the Turag river was illiterate (47%), able to sign (33%) and had education upto primary level 17% in the villages of Birulia and Boroibari

which was also more or less similar to the present study.

Family condition

In the present study, 53 of the people lived with joint families and 47 lived with nuclear family. Md. Ataur Rahman *et al.* (2015) found that 36% families were nuclear family and 64% was joint family of Talma River in the Northern Part of Bangladesh. This result was similar to the present study. M.H. Ali *et al.* (2008) [10] studied that about 28% farmers lived with joint families and 72% lived with nuclear families which was not similar to the present study (Fig. 7).

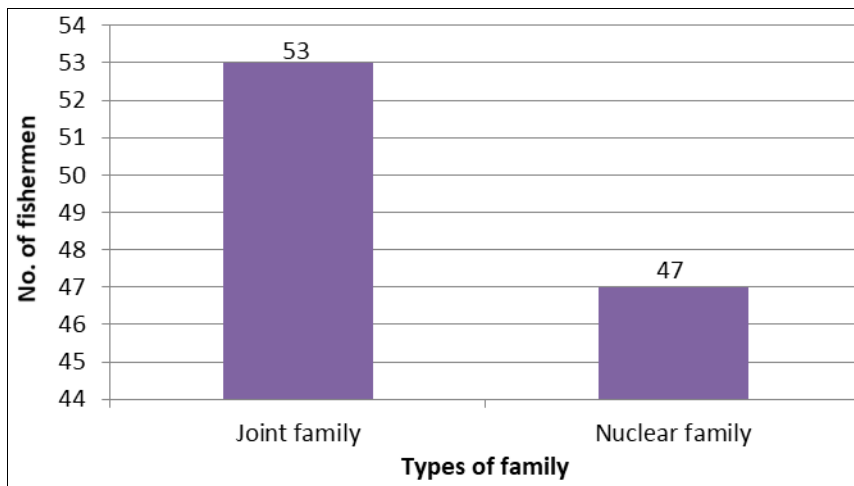


Fig 7: A graphical presentation of the number of joint and nuclear family of the fishermen of the study during study periods

Housing condition

The nature of house indicates the social status of the people. In the study area, houses of the community were of six types: 1) Earthen, 2) Straw, completely built by straw and bamboo, 3) Tin shed with bamboo, only roof was tin, 4) Tin shed with tin, both roof and surroundings, 5) Semi Pacca and 6) Pacca. The study revealed that 4% was earthen, 10% was straw, completely built by straw and bamboo, 14% was tin shed with

bamboo, only roof was tin, 40% was tin shed with tin, both roof and surroundings, 27% was semi pacca and 5% was pacca. Bijoya Paul (2013) studied that in the Turag River, 72% fishermen in Birulia and 32% fishermen in Boroibari had kacha, 28% fishermen in Birulia and 68% fishermen in Boroibari had tin-shed house. This is similar to the present study (Fig. 8).

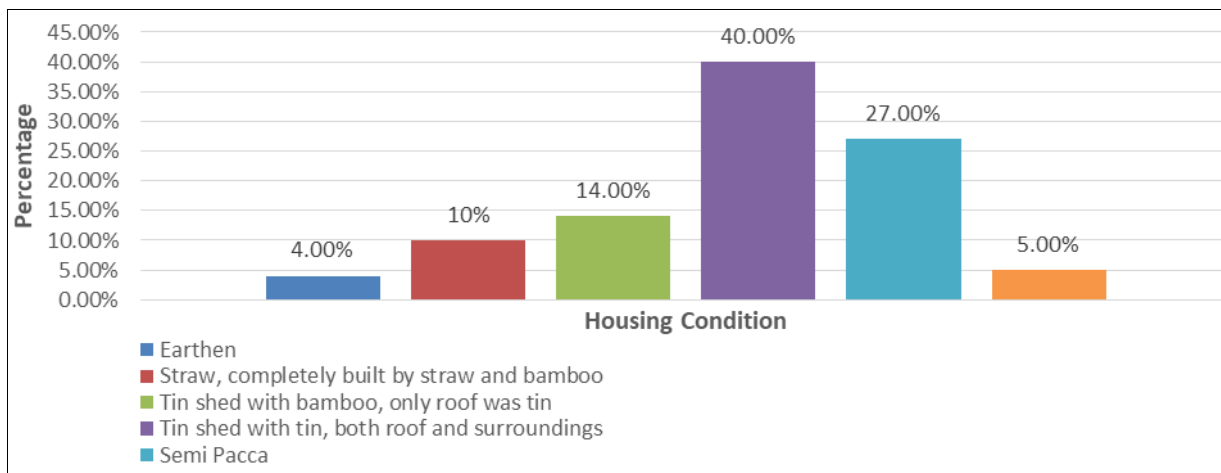


Fig 8: A graphical presentation of the percentage of the fishermen showing housing condition of the studies are during study periods

Sanitary facilities

In the present study, sanitary facilities of the community were of three types: 1) Kacha, 2) Semi-pacca and 3) Pacca. The number of fishermen those had kacha, semi-pacca and pacca sanitary facilities were 20%, 70% and 10% respectively (Fig.

9). Md. Ataur Rahman *et al.* (2015) found that 80% of the toilets were *kacha*, 16% toilets were semi *pakka* and 6% of the fishermen had no sanitary facilities which were not relatively satisfactory with the present result (Fig. 9).

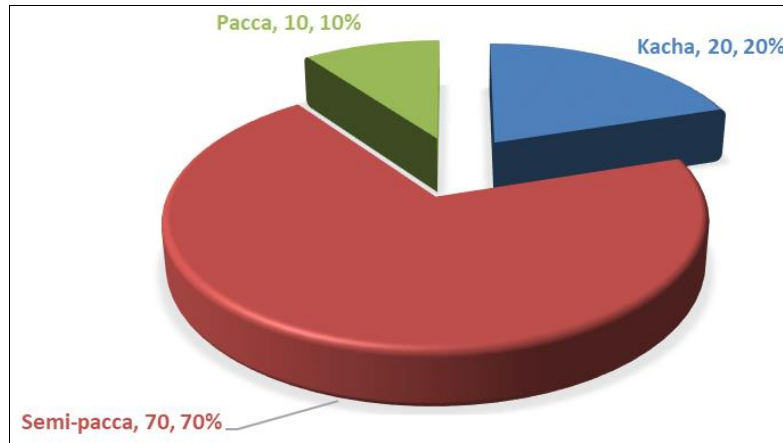


Fig 9: A graphical presentation of the number of fishermen showing sanitary facilities of the studies are during study periods

Health facilities

In the present study, most of the fishermen (66%) went to the village doctors for their treatment. 42% fishermen went to dispensary. 1%, 1%, 1%, 23%, 16% and 1% fisherman took the health facilities from homeopathy, kabiraj, MBBS,

government hospital and others respectively (Fig. 10). Bijoya Paul *et al.* (2013) founded that all of the fishermen of both Birulia and Boroibari were dependent on village doctor whom had no proper health care knowledge.

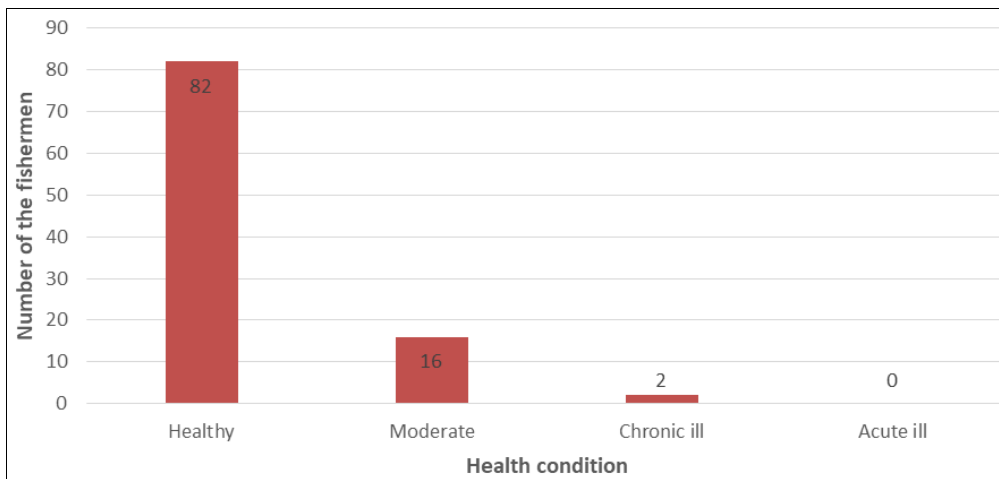


Fig 10: A graphical presentation of the health condition of the fishermen of the studies are during study periods

Monthly income

In the present study, 46, 48, 4, 1 and 1 fishermen had the monthly income in the range of 5000-10000, 10000-15000, 15000-20000, 20000-25000 and 25000-30000 respectively. Mohammad Abdul Baki *et al.* (2015) [7] studied that in the Turag-Buriganga, 14 Fisherman (28%) mentioned that their

monthly fishing income fluctuate between Tk.4500-7500, while 24 fisherman (48%) mentioned that there monthly income was between Tk. 7500-10500. The monthly income of the rest of the fisherman (20%) was 10500 to 13500 Tk. This result was relatively satisfactory with the present result (Fig. 11).

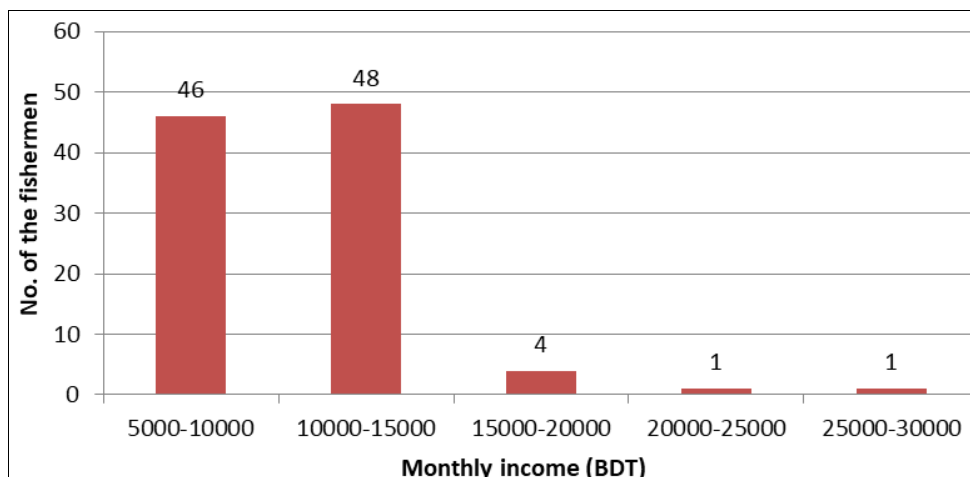


Fig 11: A graphical presentation of the monthly income of the fishermen of the study during study periods.

Conclusion

The livelihood status of the fishing community of the Turag River is not satisfactory and most of the fishermen are very poor. The development and improvement of the livelihood status of the fishing community will ensure their good life as well as their better contribution to the nation.

Acknowledgement

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References

1. Alam MF, Bashar MA. Structure of cost and profitability of small scale riverine fishing in Bangladesh. *Research in Agriculture, Livestock and Fisheries*. 1995; (9):235-241.
2. Department of Fisheries. Ministry of Fisheries and Livestock, Dhaka, Bangladesh. National Fish Week Compendium, 2013, 144.
3. Chambers R, Conway R. Sustainable Rural Livelihoods: Practical Concept for the 21 century, Discussion paper, IDS, 1992, 296.
4. Department for International Development. Sustainable livelihoods guidance sheets. (DFID), London, UK, 1999.
5. Scoones I. Sustainable rural livelihood: a framework for analysis. Institute of Development studies. IDS working, 1998, 72.
6. Hossain MA, Ahmed M, Islam MN. Mixed culture of fishes in seasonal ponds through fertilizer and feeding. *Bangladesh Journal for Fisheries and Research*. 1997; 1(9):18.
7. Baki MA, Islam MR, Hossain MM, Bhouiyan NA. Livelihood Status and Assessment of Fishing Community in Adjacent Area of Turag-Buriganga River, Dhaka, Bangladesh. *International Journal of Pure and Applied Zoology*. 2015; 3(4):347-353.
8. Rahman MA *et al.* Livelihood Status of Fishing Community of Talma River in the Northern Part of Bangladesh. *American Journal of Life Sciences*. 2015; 3(5):337-344.
9. Basavakumar KV, Devendrappa S, Srenivas ST. A study on profile of fishing community of a village in Karnataka. *Karnataka J Agric. Sci*. 2011; 24(5):684-687.
10. Ali MH, Hossain MD, Hasan ANGM, Bashar MA. Assessment of the Livelihood Status of the Fish Farmers in Some Selected Areas of Bagmara Upazila under Rajshahi District. *Journal of the Bangladesh Agricultural University*. 2008; 6(2):367-374.
11. Paul B, Faruque M, Ahsan DA. Consequences of climate change on fish biodiversity in the river Turag, Bangladesh: A community perception study. *World J Fish and Marine Sci*. 2014; 6(2):136-141.
12. Rahmatullah SM, Aziz A, Rahman M, Bari MR, Alam MA. Socio-Economic Status of Fishermen of the Jamuna River in Bangladesh. *IOSR Journal of Humanities and Social Science*. 2015; 20(10):63-66. Ver.
13. Suja BS. Socio-Economic Condition of Inland Fishermen. A Case Study of Kerala. Economics Research Centre Government College Kottayam, Kerala, 2006: 686:013.