



Socio-economic status of fishermen community of Wular Lake in district Bandipora of Jammu and Kashmir


Neelofer Habib¹ • Salima Jan²

¹ Department of Sociology, University of Kashmir, Srinagar-190006, Jammu and Kashmir, India

² Department of Educational Multimedia Research Centre, University of Kashmir, Srinagar-190006, Jammu and Kashmir, India

Correspondence

Neelofer Habib; Department of Sociology, University of Kashmir, Srinagar-190006, Jammu and Kashmir, India

 zargarneelofer@gmail.com

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Abstract

The present study investigates the socio-economic status of fishermen community of Wular Lake in district Bandipora of Jammu and Kashmir. Data were collected through structured interview schedule from 150 respondents from fishermen community between July and September 2020. It was found that 34.7% of the respondents fall in to the age group of 41–50 years and 56.0% were married. Majority of the respondents were illiterate (61.3%) and over half of the respondents (59.3%) earned monthly Rs.1000–5000. The study also explored that 93.3% of the respondents lived in their owned houses. The family size of fishing community was usually consisted of 7–10 members and 51.3% of them lived in a joint family system. However, most of them (54.66%) were dependent on river/canal water as drinking source and 59.3% were having dry latrine. It may be concluded that the fishermen community in the study area was the disadvantaged group of the society. Government, NGOs and respective stakeholders should come forward to take proper and necessary steps to improve their living conditions.

Keywords: Bandipora district; fishermen community; livelihood; socio-economic status; Wular Lake

1 | INTRODUCTION

Fishing is one of the oldest economic activities of human race, comes next only to agriculture (Kumbhar 2017). Fisheries sector play an important role on the socio-economic development of fishermen community (Islam *et al.* 2013; Galib *et al.* 2016; Hanif *et al.* 2019). According to International Collective in Support of Fishworkers, the fisheries sector is an important source of life and livelihood for millions of people around the world (ICSF 2010). Fisheries and aquaculture is one of the fastest-growing industries in the world (Tacon 2020) and has been playing an significant role in the economic development by contributing to food and nutritional security, national income, employment opportunities as well as

generating livelihood options (Kumar and Shivani 2014). For billions of people worldwide, it is the primary source of animal protein where capture fishery and aquaculture serves the livelihoods of more than 10% of the global population (FAO 2020). In 2016 the global fish production was estimated 171 million metric tonnes (mmt), which includes production from aquaculture (80.0 mmt) and capture fisheries (91.0 mmt) (FAO 2020). Since the eighties, the capture fishery production has been relatively static, while production from aquaculture has been registering a steady growth and meeting the increasing supplies of fish for human consumption. China remains the major producer of marine fisheries followed by Indonesia, the United States of America, the Russian Federation,

Peru and India (FAO 2020). It is predicted that the total world fish production will reach 201 mmt in 2030 and the major contribution (109 mmt) is expected to come from aquaculture, registering a growth of 37 per cent over 2016 production (FAO 2020). In 2016, nearly 59.6 million people were engaged in capture fisheries and aquaculture, with 19.3 million people engaged in aquaculture and 40.3 million people engaged in fisheries (FAO 2020). Asia accounts for nearly 85% of the global population engaged in fisheries and aquaculture, followed by Africa (10%) and Latin America and the Caribbean (4%) Europe, North America and Oceania each has less than 1 per cent of the global population engaged in fisheries and aquaculture (FAO 2018). Around 61% of the fish stocks are fully exploited and 28.8% fished at a biologically unsustainable level (SBSTTA 2015).

Millions of people around the globe including many in developing countries like India depend on fisheries for their livelihood. India currently ranks 3rd in capture fisheries and 2nd in aquaculture production in the world, contributing 6.3% to the total global fish production (Anonymous 2020). India has a rich freshwater fish diversity comprising of 1027 species in total (Gopi *et al.* 2017). Fisheries sector contributes significantly to the Indian economy by providing livelihood to approximately 14.49 million people (Sabu and Shajumon 2014). Fishing is generally considered a low profession in developing countries including India and is practiced mainly by the members of backward communities; largely illiterate, superstitious and financially poor (Flowra *et al.* 2009). The main factor that has influenced this profession is the socio-economic condition of the fishermen community (Qayoom *et al.* 2016). The fisheries sector plays an important role in the boosting of the Indian economy by contributing to the national income, employment generation, and foreign exchange earnings (Bhargavi *et al.* 2020). Fish and fishery products have been recognised as the cheapest source of protein and an important source of diet for thousands of people in many parts of the world. It is estimated that more than 12 million people are directly engaged in fishing activities and about 60 million are exclusively depend on fisheries activities for livelihood in India (Rao *et al.* 2016; Bhargavi *et al.* 2020). Fishermen are one of the most vulnerable communities by any standard and over the years and most of them live from hand to mouth (Ali *et al.* 2014).

The Union Territory of Jammu and Kashmir (J & K) is blessed with abundant water resources. In Jammu and Kashmir, there are about 1248 water bodies, which comprise rivers and canals, reservoirs, tanks and ponds, floodplains, and derelict water bodies (DAHDF 2017). Fishing is a growing sector in the economy of Jammu and Kashmir which has been registering consistent growth during the past decades (FAO 2008). Fisheries sector is considered an emerging venture which possesses a po-

tential to contribute to state's economy in Jammu and Kashmir. Its role in supplementing nutrients and food demand, and generating employment cannot be denied. At the same time it is an instrument of livelihood for a certain section of population of the valley. More than 10% of population in the valley depend on capture fisheries and aquaculture for their livelihood (Baht and Sharma 2020). Agriculture is the primary occupation of 70% population in Kashmir, of which 15% are involved in fisheries (Baht and Sharma 2020). Fisheries constitute a major source of income in Kashmir and lake fisheries are a multi-dimensional resource and serve many uses. The Wular is an important lake of Kashmir and represents the largest freshwater lake of India. Traditionally, this lake has had a flourishing fishery but studies have shown a decline in fish catches in recent times (Shah and Bukhari 2019).

Kashmir fisheries form an important component of the national fisheries with valley being the largest producer of cold water fish in the country. The total fishermen population in the Jammu and Kashmir State, as per livestock census 2003, was around 31000 (Hussain *et al.* 2016). It is presently estimated as 93000 (Bhat 2016). There is a vast potential of fish production from water bodies of the state but it has been reported that unscientific culture practices, lack of technical staff, and non-utilisation of water bodies are responsible for low fish production (Malik *et al.* 2018). Many studies have also reported concerns on pollution, siltation in water bodies, and unscientific cultural practices as the reason for the decline in fisheries (e.g. Qayoom and Bhat 2015). For the proper development of the fishing industry and fishermen, the socio-economic advancement is necessary. Despite being the inhabitants of Wular Lake, a Ramsar site and an important fish habitat, the fishers continue to live in vicious cycle of poverty and underdevelopment (Malik *et al.* 2018). In Jammu and Kashmir, many studies have been carried out on the socio-economic condition of fishermen community living on the banks of river Jhelum, Dal Lake and Anchar Lake but not on Wular Lake. This study has a wider scope as no such kind of research has been carried out in Kashmir. Hence the present study was undertaken to assess the socio-economic status of fishermen communities residing by Wular Lake.

2 | METHODOLOGY

2.1 Study area and duration

The study was carried out in Bandipora district of UT, Jammu and Kashmir, India. Bandipora district is one of the 22 districts of UT with 385099 population (Census of India 2011). This study was conducted in Bandipora district, which is also called the fish bowl of the state and is a major fish producing district in the valley. In spite of having a very high fish production the fishing community of the district belongs to deprived section of the society (Malik *et al.* 2017). Wular is spread over two districts of

Jammu and Kashmir, Bandipora and Sopore tehsil of Baramulla. It is located approximately 40 kilometres northwest of Srinagar city (34°16' – 34°25'N, 74°29'E – 74°40'E) with an elevation of 1580 meters above sea level (Dar *et al.* 2014). Wular Lake is drained by three major rivers of Madhumati, Erin and Jhelum. The river Jhelum enters it at Banyari (40 Kms from Srinagar) and again separates at Ningli. This lake plays an important role in the sustenance of a large population spread over about 31 villages living around the lake within the districts of Baramulla and Bandipora (Census of India 2001). Wular Lake plays a key role in supporting the human population through producing water chestnuts, fishes, fodder, nadru (i.e. lotus stem) and wood. There are around 3700 fishing license holders in the lake including 2500 from Bandipora and 1200 from Sopore districts (DoF 2019).

2.2 Sampling framework

For this study, the data were collected over a period of three months from July to September 2020. Field surveys were carried out on a weekly basis to collect the necessary information. Random selection method was employed to select fishermen in order to avoid any biasness in selection of the fishermen. A total of 150 fishermen were surveyed.

Structured interview schedule was prepared to collect necessary data from the respondents. Before the actual data collection process, a pilot study was conducted with 20 respondents from the fisherman community in Bandipora district. After necessary modifications final version of interview schedule was used to collect data. However, all the data were cross-checked for ensuring the accuracy of data collected.

2.3 Data analysis

Collected data were numerically tabulated and analysed through simple statistical methods in Microsoft Excel (version 2016).

3 | RESULTS AND DISCUSSION

The livelihoods of the fishermen community depended on the fishing and fishing-related activities in the study area (Table 1).

3.1 Age

From the analysis of background information, the study showed that respondents belonging to different age groups ranging from below 30 to above 50 years (Table 1). Out of total 150 respondents, 22.66% were within the age group 31 – 40, 16.66% were falling below 30 years, 34.66% of the respondents were 41 – 50 years old. It could be indicated that majority of the respondents in the study area were in the age group of 41 – 50 years. Similar study was done by Islam *et al.* (2013) surveyed that age of the respondent fishermen was 5.22 ± 9.67 years. Another

study was done by Bhargavi *et al.* (2020) and reported that 61.6% of the respondents were belonging to age group of 31 – 56 years.

3.2 Marital status

In the level of marital status 56.66% of the respondents were married and the remaining 17.33% of the respondents were unmarried and 20% were widow and remaining 6.66% were separated (Table 1). It could be noted that the vast majority of the respondents in the study area were married. A similar study was done by Akhter *et al.* (2017) who found that 77% of the respondents were married and 23% was unmarried.

TABLE 1 Distribution of the respondents by their demographic variables ($n = 150$).

| Variable | Categories | Number of respondents (n) | Percentage (%) |
|-----------------------------------|-------------------------|-------------------------------|----------------|
| Age (years) | Below 30 | 25 | 16.66 |
| | 31 – 40 | 34 | 22.66 |
| | 41 – 50 | 52 | 34.66 |
| | Above 50 | 39 | 26.00 |
| Marital status | Married | 84 | 56.00 |
| | Unmarried | 26 | 17.33 |
| | Widow | 30 | 20.00 |
| | Separate | 10 | 6.66 |
| Education | Literate | 58 | 38.66 |
| | Illiterate | 92 | 61.33 |
| Monthly income (in Indian Rupees) | < 1000 | 29 | 19.33 |
| | 1000–5000 | 89 | 59.33 |
| | 5000–10000 | 24 | 16.00 |
| | > 10000 | 8 | 5.33 |
| Ownership of houses | Rented | 10 | 6.66 |
| | Own | 140 | 93.33 |
| Type of family | Joint | 77 | 51.33 |
| | Nuclear | 73 | 48.66 |
| Family size | Small (2–4) | 15 | 10.00 |
| | Medium (5–6) | 50 | 33.33 |
| | Large (7–10) | 85 | 56.66 |
| Housing conditions | Government scheme house | 6 | 4.00 |
| | Katcha house | 16 | 10.66 |
| | Pucca house | 25 | 16.66 |
| | Semi pucca | 66 | 44.00 |
| | Tin shed | 37 | 24.66 |
| Drinking water facilities | Tube well | 43 | 28.66 |
| | River / canal | 82 | 54.66 |
| | Tap water | 10 | 6.66 |
| | Tank/pond | 15 | 10.00 |
| Sanitary facilities | Dry latrine | 89 | 59.33 |
| | Septic tank / flush | 61 | 40.66 |
| Health facilities | Yes | 84 | 56.00 |
| | No | 66 | 44.00 |

3.3 Educational status

With respect to the educational level of the respondents the maximum respondents were illiterate (61.33%) and 38.66% were literate. Similar result was also reported by Islam *et al.* (2013) who have reported that majority of the fishermen in Jessore district were illiterate. Saxena *et al.* (2014) revealed that 80 per cent of respondents were found illiterate.

3.4 Monthly income

Income is the most important factor for better understanding of the socio-economic conditions of fishermen. Regarding their wages category, 19.33% of the respondents earned below Rs 1000 monthly and majority of the respondents (59.33%) earned Rs 1000 – 5000 monthly (Table 1). A study was done by Sheikh and Goswami (2013) revealed that monthly income of 35% of the respondents in Chandakhola wetland, Dhubri, Assam was low (<Rs 3000) followed by Rs 3001 – 4500 (20%) and Rs 4501 – 6000 (30%).

3.5 Ownership of houses

With respect to the ownership of houses 93.33% of the respondents lived in owned houses whereas remaining 6.66% of the respondents lived in rented houses (Table 1). A study by Das *et al.* (2015) revealed that 60% of the fishermen were landless and they had no arable land and about 30% of the fishermen owned only 1 – 40 decimal homestead land.

3.6 Family types

The survey results showed that 48.66% of the respondents lived as nuclear families whereas remaining 51.33% lived in joint families. Bhargavi *et al.* (2020) showed that 64.9% of the respondents lived as nuclear family whereas 35.1% lived in joint families in their study area. Baki *et al.* (2015) found that 60% of respondents lived in nuclear families and 40% of respondents lived in joint families which is not similar to our study.

3.7 Family sizes

Majority of the respondents (56.66%) lived in large families, comprised of 7 – 6 members whereas the size of 33.33% of the respondents was medium, with 5–6 members (Table 1). Bharagavi *et al.* (2020) recorded that family size of 48.7% of the respondents was ≤ 5 members and 51.3% respondents lived in a family of >5 members. Baki *et al.* (2015) found that majority of the respondents (46%) lived in a family of 5 – 6 members.

3.8 Housing condition

The nature of house also indicates the social status of the people. Most of the fishermen lived in very poor houses. The study showed that only 4% of the respondents were dwelling in the government-schemed houses whereas

majority of the respondents (44%) were living in semi-pucca houses (Table 1). A study by Ghosh *et al.* (2015) revealed that most of the fishermen lived in very poor housing conditions in Bangladesh. They have recorded that majority (60%) of the respondents were living in tin-shaded houses whereas 14% of the respondents living in straw-made houses. In another study, Baki *et al.* (2015) found that 66% houses were mud-built.

3.9 Drinking water sources

Drinking water facility can directly impact the health conditions of the fishermen. In the study area, households of only 28.66% respondents had access to tube-well water for drinking. Unfortunately, 54.66% of the respondents were drinking river/canal water (Table 1). A slightly better situation was recorded by Baki *et al.* (2015) who have reported that 50% fishermen had access to tube well was for drinking.

3.10 Sanitary facilities

The present study revealed that respondent fishermen were facing sanitary problems. Families of the majority of the respondents (59.33%) used dry latrine whereas remaining 40.66% used septic tank/flush (Table 1). Similar findings were also reported by Ghosh *et al.* (2015).

3.11 Health facilities

Access to health facilities by the fishermen was not satisfactory at all in the study area as there was a lack of good medical facility. Only 44% fishermen were receiving health treatments from unskilled non-professional village doctor. Ali *et al.* (2010) reported that 60% of the respondents were relying on village doctors and only 10% received better health services from professionals. However, fishing can be a life-threatening venture due to the nature of the work under adverse environmental conditions and therefore, fishermen require access to quality health services which is not available in most cases (Parvez *et al.* 2017; Rahman *et al.* 2020).

4 | CONCLUSIONS

In view of aforesaid result and discussions, it may be concluded that the socio-economic condition of the fishermen community in Wular Lake is very poor and miserable. They have no other income generating activities except fishing, which cannot be carried out throughout the year. Their socio-economic development is negligible. Despite full engagement in fishery-related activities poor socio-economic conditions of the fishermen in Bandipora district of Jammu and Kashmir was revealed in this study. The fishing community of the study area were found to belong to the disadvantaged group of the society. The monthly income per fishermen was comparatively lower from the national per capita income. The income of fishery community in Kashmir is less than what Suresh Ten-

dulkar report of India 2009, calculated for rural household.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHORS' CONTRIBUTION

NH involved in sample collection, data analysis and manuscript preparation; **SJ** participated in manuscript preparation.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request to the corresponding author.

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N Habib  <https://orcid.org/0000-0002-7784-0548>