

A study of Socio-Economic status of fisher communities in District Srinagar of Jammu & Kashmir

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Abstract

Objectives: Present study investigates the socio-economic status of three fisher communities in district Srinagar of Jammu and Kashmir around Dal Lake, Anchar Lake and River Jhelum.

Methods/Statistical analysis: A total number of 230 fishers is selected randomly from Anchar Lake, Dal Lake and River Jhelum within the limits of Srinagar city and subjected to in-depth guided interviews and well structured questionnaires. The data collected was subjected to descriptive statistics and chi square in SPSS (version 20.0) software.

Findings: The study revealed that most of the people involved in fishing belongs to age group of 41-50 years with a significant difference in literacy rate ($p < 0.05$) in all the communities. In terms of monthly monetary gains, the overall poor economic conditions in all the three fisher communities was noticed with highest frequency distribution falling under 10,000 rupees a month. A meager return from the capture fisheries has enforced them to switch over to other professions of laboring, fruit vending and auto driving. The problems faced by fisher folks in capitalizing maximum from the capture fisheries include high cost of net (91.25%), poor extension services to educate the fishers (80%), poor processing facilities (77.5%), high cost of fishing inputs (71.25%) and poor weather condition (46.25%).

Applications: If the fishery facilities of these areas are improved upon, it could support the strides towards employment generation, and supply of animal protein in the region and beyond.

Keywords: Socio-economic status, Fishers, River Jhelum, Dal Lake, Anchar Lake, Poverty alleviation.

1. Introduction

Fisheries sector occupies an important place in the socio-economic development of the country as it contributes to 1.01% of total GDP and 5.15% of agricultural GDP generating employment to about 14 million people in India (Anonymous) [1]. The sector has proved to set an impulse growth of a number of subsidiary industries as it supplies a source of cheap and nutritious food. Fishing practices in Jammu and Kashmir are bifurcated in artisanal and culture fishing practices. 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. The main factor that has influenced this profession is the socio-economic condition of the fishermen community. For proper development of the fishing industry, the socio-economic upliftment of fishers is necessary. To strategize a comprehensive mechanism for the betterment of this community, the baseline information such as assessment of socio-economic status of fishers, constraints faced by them in the sector and formulation of strategies for their upliftment could be the primary steps in this regard.

Hence the present study was undertaken to assess the socio-economic status of fisher communities residing around three different waterbodies falling within the Srinagar city of Kashmir valley. Problems faced by the people associated with the sector was also assessed and related with the data obtained.

2. Material & Methods

Study Site:

Dal Lake:

Dal, a sub-Himalayan urban lake of fluvial origin situated at an altitude of 1886 m (ASL) between 34°5' - 34°6' N latitude and 74°8' - 74°9' E longitudes. The total water surface area of the lake is 11.45km², of which 4.1km² is

floating under gardens, 1.51 and 2.25km² are land and marsh respectively [2]. The lake covers an area of 11.4 sq. kms comprising of four basins [3]. Among the contributory streams of Dal, the maximum water to the lake is contributed by a perennial inflow channel, TelbalNalla that enters the lake from north side after originating from the Marsar, a glacial oligotrophic alpine lake high up in the mountains and draining the Dachigam reservoir. It supplies about 80% of the total inflow to the lake. In addition to this source, there are a number of springs within the lake basin itself, which act as permanent water source to the lake [4]. Dal Lake is surrounded by densely populated human establishments at fringe areas. Besides, a large number of house boats also float on Dal inhabiting a good number of locals and tourists.

Anchar Lake:

Anchar, a shallow basined valley lake with fluvial origin (altitude 1584 m a.s.l.) is situated 14 km to the northwest of Srinagar city within the geographical coordinates of lat. 34° 20' - 34° 26' N and long. 74° 28' - 74° 55' E. The lake is connected with Khusalsar Lake, which is in turn connected with Dal Lake through a small inflow channel, Nalla Amir Khan. However, a network of channels, resulting in a delta type formation, from the cold-water river Sindh enters the lake on its western shore. In addition to these feeding channels, the lake also supplied by a number of springs present in the basin itself along its periphery. Towards the northeast of the lake is situated the SKIMS (Sher e Kashmir institute of Medical Sciences). The effluents from SKIMS complex, runoff from agricultural fields and sewage disposals from the catchment area are drained into the lake, which results in the nutrient enrichment especially, near the SKIMS site. There is a densely populated residential houses situated all along the lake right from Soura in Srinagar upto Ganderbal District. Mostly, the residents living on the banks of lake are fishers engaged in deriving different foods, sand and fodder from the lake.

River Jhelum:

Jhelum is famously called lifeline of Kashmir valley as it is not only home for variety of diversity, but also a lifeline utilized for irrigation, transport and many more things. In fact the origin of Kashmir valley is connected with the origin of the river. Jhelum flows from the south of the state, emerging from the Verinag to northwest, finally enters Pakistan to fall into Arabian Sea. Many snow fed tributaries join the river along its journey of about 239 kms from Verinag to Uri. Tributaries from the right bank of the river come from the Himalayan slopes while those of the left bank come mostly from PirPanjal range. The river winds through many towns like Anantnag, Bijbehara, Awantipora, Pampore, Srinagar, Shalteng, Shadipora and Sumbal. From here it straight way flows to Wular Lake, which is regarded as delta of the river passes through Ningli, Sopore, Baramulla, Bonyar, Uri and Muzaffarabad, and ultimately enters Pakistan. Apart from the irrigation, transportation, hydroelectricity, and sand extraction, river Jhelum is a house for a large number of fishes, which provides not only income for the people living along its banks. But also accommodates a variety of vegetation, which not only acts as food for various animals living in, but also balances the ecology of the river.

Method of Data Collection:

The socio-economic investigation was carried out in the fisher community in the district Srinagar of Jammu & Kashmir. A total number of 80 fishers were selected randomly from four villages 20 from each village. The socio-economic information was collected through personal interview method on a well structured pre-tested schedule developed for the purpose. The data collected was subjected to statistical analysis using chi square (χ^2) test and parameters compared with each other using p-value of significance.

Results

The analysis on the socio economic condition of the fishermen of the said community is given in the tables (1 to 5).

Age distribution of the respondents

The respondents were divided in four age groups from 20–60 years in each area. The frequency of age distribution was found high in the age group of 41-50 years with highest in Anchar Lake (51.25%) followed by River Jhelum (48.05%) and Dal Lake (45.21%) (Table1). No significant difference ($p>0.05$) was found between the age groups of fishers in all the three areas.

Table 1. Age group of the respondents

S.No.	Age group (Year)	Anchar Lake		Dal Lake		River Jhelum	
		No. of respondents	Percentage (%)	No. of respondents	Percentage (%)	No. of respondents	Percentage (%)
1	20 – 30	7	8.75	3	4.109	10	12.99
2	31 – 40	19	23.75	16	21.92	21	15.58
3	41 – 50	41	51.25	33	45.21	37	48.05
4	51 – 60	13	16.25	21	28.77	9	11.69
Total		80	100	73	100	77	100
		$\chi^2 = 10.385$		$p > 0.05$			

Occupation of the respondents

Fishermen are operationally defined as the persons who, irrespective of their castes, pursue fishing as their chief occupation. The primary occupation of the respondents under study was obviously fishing around all the three waterbodies. However, a fair number of fishers have switched over to other professions like labouring, fruit vending, auto driving and agriculture farming. Most of the people were found to opt labouring in Anchar Lake (53.75%), Dal Lake (46.58%) and River Jhelum (64.94%). Fruit vending was found to be the second most opted profession by fisher community of these areas (Table 2). A significant difference ($p \leq 0.05$) was found between the occupations of fishers in the areas.

Table 2. Occupation of the respondents

S. No.	Occupation	Anchar Lake		Dal Lake		River Jhelum	
		No. of respondents	Percentage (%)	No. of respondents	Percentage (%)	No. of respondents	Percentage (%)
1	Fishing	80	100	73	100	77	100
2	Labour	43	53.75	34	46.58	50	64.94
3	Fruit vender	19	23.75	28	38.36	25	32.48
4	Agriculture	13	16.25	04	5.48	00	0
5	Auto driving	05	6.25	07	9.59	07	9.09
Total		80	100	73	100	77	100
		$\chi^2 = 20.032$		$P < 0.01$			

Literacy status of the respondents:

The present study revealed that the fisher communities of three waterbodies are still educationally backward. A highly significant difference ($p \leq 0.05$) between the literacy status of fishers in Dal, Anchar and Jhelum was observed. In Anchar Lake most of the people were found illiterate (42.5%) while as 23.75 % of the people were just literate upto primary standard. In Dal Lake 31.51% people had studied upto primary levels while as 27.39% of the people were illiterate. In River Jhelum, over 40% of the people were literate to primary level while as 18.18% were found literate (Table 3).

Table 3. Literacy level of the respondents

S. No.	Literacy Level	Anchar Lake	Dal Lake	River Jhelum	Descriptive Statistics		
		No. of respondents	Percentage (%)	No. of respondents	Percentage (%)	No. of respondents	Percentage (%)
1	Illiterate	34	42.5	20	27.39	14	18.18
2	Primary level	19	23.75	23	31.51	31	40.26
3	Middle school	41	16.25	14	19.18	13	16.88
4	High school	13	13.75	11	15.07	13	16.88
5	Secondary level	3	3.75	5	6.85	7	9.09
Total		80	100	73	100	77	100
		$\chi^2 = 25.139$		$P < 0.01$			

Family size of the respondents

Family size of fishers was not found to have significant ($P>0.05$) relationship with their socio-economic status. The family size of the respondents were divided into four groups viz., 3-4, 5-6, 7-8 and 9-10 family members. Most of the respondents from Dal Lake (53.42%) and River Jhelum (53.25%) were found to have 3-4 family members while as in Anchar, 47.50% respondents belonged to the same family size. There were few families having more than 7 members in all the three studied areas while as a fairly large number of respondents were found to have the family size of 5-6 members (Table 4).

Table 4. Family size of respondents

S. No.	Family size	Anchar Lake		Dal Lake		River Jhelum	
		No. of respondents	Percentage (%)	No. of respondents	Percentage (%)	No. of respondents	Percentage (%)
1	3-4	38	47.50	39	53.42	41	53.25
2	5-6	27	33.75	30	41.09	22	28.57
3	7-8	12	15.00	2	2.74	10	12.99
4	9-10	3	3.75	2	2.74	4	5.19
Total		80	100	73	100	77	100
		$\chi^2 = 8.877$		$P>0.05$			

Income distribution of the respondents:

Income is the decisive factor mostly used for determining the living standard of the any community or region. Equitable distribution of the income further enhances the social harmony among different section of our population. The economic conditions of respondents in the present study revealed that most of the people belong to below poverty line or lower class of the society. 42.86% of respondents in River Jhelum, 42.47% in Dal Lake and 36.25% in Anchar Lake had monthly gains of fewer than 10,000 only. Some of the respondents having monthly income of upto 15,000 were also found in a fair percentage. The income distribution of the families along these water bodies were related insignificantly ($p\geq 0.05$) to each other (Table5).

Table 5. Income distribution of the respondents

S. No.	Income level	Anchar Lake		Dal Lake		River Jhelum	
		No. of respondents	Percentage (%)	No. of respondents	Percentage (%)	No. of respondents	Percentage (%)
1	<5000	09	11.25	03	4.11	07	9.09
2	5000-10000	29	36.25	31	42.47	33	42.86
3	10000-15000	23	28.75	29	39.73	23	29.87
4	15000-20000	14	17.5	7	9.59	10	12.99
5	>20000	05	6.25	03	4.11	04	5.19
		$\chi^2 = 6.790$		$P>0.05$			

3. Discussion

Socio-economic upliftment of all the sectors of a society is imperative for their overall development and growth. Economic upliftment of a society through a particular sector not only determines the hold of the sector in that area, but its ability in generating employment, creating avenues and develops the people in that region. Not only this, a sector potent to uplift a society economically must be accepted on social levels as well which will facilitate its penetration deep into the society and render its overall development. In developing countries fisheries has never been accepted upto such levels, although the boon through this sector never been ignored. Generation of employment, economic development and supplying high quality of cheap animal protein are common attributes of fisheries sector.

In this study various parameters with respect to socio-economic status of fisher communities residing on the banks of Dal Lake, Anchar Lake and River Jhelum was studied. Respondents falling in the age group of 41-50 years

were mostly found engaged in artisanal fish capture in all the three areas with no significant difference ($p>0.05$) between them. Moreover, males were found highly involved in the profession than females. This could be attributed to the fact that fish capture is strenuous and risky involving hard labour which requires experienced staff. Inexperienced, old aged and most of the female cannot withstand the challenge. Similar opinion has been discussed by [5]. In [6] found fishers of age group of 30-50 years involved in capture fisheries of marine protected areas of Lingayen Gulf in Philippines.

Most of the respondents were found to have switched over to other occupations like labouring, fruit vending, agriculture and auto driving. Labouring was found to be the best choice and may be attributed to the fact that it is a simplest way of earning without any investment while as fruit vending formed the next choice as it requires small capital investment. Banks of River Jhelum being devoid of any land was the reason behind zero percent involvement of the respondents in agriculture. However a small portion of floating gardens in Dal and Anchar Lakes enabled the fishers of these areas to cultivate vegetables and rear economically important foods like water chestnuts, *Nelumbium* Lotus, etc. This defines involvement of some fishers in agriculture in Dal and Anchar Lakes (Table 2). In [7] reported 23.81% of fishers involved in agricultural farming Jankhana village could be attributed to the fact that there is availability of agricultural land in that area which enables them to either switch over or opt as a secondary occupation.

Literacy rate of fishers in the present study was found to be very poor and highly related in all the study areas (chi square 25.139) reasons for such a low literacy rate could be attributed to social status, oblivion, low income and family size of the respondents. Literacy and socio-economic status are interdependent to each other that explain the poor social and economic status of fishers due to low income status or vice versa.

Family size of a community directly influences their economic strength and mitigates income strength. During this study, the family members in most of the respondents ranged from 3-6 in all the areas under study. Women and old aged were found directly dependent on few other members able to earn and make meagre income. This is also indicative of poor literacy rate in respondents for their bread earners feel it waste of money to educate their children. Poor education may also lead to poor healthcare management. A recent study made on the health seeking behavior of the Ennore creek fishing community emphasized for effective utilization of the healthcare services among fishing communities and recommended the national programs and policies to orient towards the marginalized community [8].

The respondents who opted other occupations in addition to fishing claim to earn upto 15000 a month. Very few percentage of fishers were found to earn 20000 or more due to the reason that other occupations like fruit vending, labouring and agricultural practices are itself low earning professions. Moreover, the large family size and large number of dependent respondents are also key factors that mitigate the income distribution of respondents in fisher communities of Dal, Anchar and Jhelum (Table 5). In [7] reported a maximum income of 4000 in fishers of Jankhana village of 50-70 years of age. In [9] reported an income ranging from ₹5000 – 10,000, 10,000 – 15,000 and above 15,000 of 14.7%, 48% and 37.3%, respectively of fishers around Chombala Harbour in Kerala. A study among fisher folks of Ennore creek near Chennai reported the income range of ₹2000-4000, 4000-6000, 6000-8000 and <10000 of 21.2%, 21.9%, 22.2% and 19.3% respectively [10].

4. Conclusion

Artisanal fisher folk in Srinagar district of Jammu and Kashmir state were mostly adult males in active age range and with low level of formal education. There was very low application of modern technologies in artisanal fisheries in the study area. This could be due to low level of education of the fisher folk and lack of requisite capital to purchase modern inputs. There was a very high need for information on improved fisheries practices among the fisher folk. The key areas of information need included sources of microcredit, modern fish capture methods, fish processing, storage and marketing. Accessibility to needed information was very low among the fisher folk. Low level of education, poverty and lack of fisheries extension in fishing communities could have been responsible for the low access to needed information. Extension packages that revolve around the information needs of fisher folk should be provided in fishing communities. Adult literacy programs as well as micro-credits should be provided to artisanal fisher folk to enhance their access to needed information and modern fishing gears and storage facilities.

5. References

1. Indian Fisheries. nfdb.gov.in/about-indian-fisheries.htm. 2016.
2. K.Yaqoob, A.K.Pandit, S.A.Wan. Comparative physicochemical Limnology of three lakes of Kashmir Himalaya. *Proceedings of Taal: The 12th World Lake Conference*: 2007. 1922-1927.
3. H. Qadri. A. R. Yousuf. Dal Lake ecosystem: Conservation strategies and Problems. *The 12th world lake conference* (Eds. Sengupta, M and Dalwani, R). 2008; 1453-1457.
4. M.R.D.Kundangar, S.G.Sarwar, M.A.Shah. Limnological characteristics of Hazratbal basin of Dal Lake 1992-93. *Technical Report-submitted to Government of Jammu and Kashmir*. 1995.
5. O.J. Okwu, M.A. Yahaya, C.P.O. Obinne. Analysis of artisanal fisher folk information needs and accessibility in Benue State, Nigeria. *Asian Journal of Agricultural Sciences*. 2011; 3(5), 408-413.
6. J.A.Vicente, R.B.Cerezo. The socio-economic contributions of marine protected areas to the fisher folk of Lingayen Gulf, North-western Philippines. *International Journal of Environmental Research*. 2010;4 (3), 479-490.
7. R. Bordoloi, S.K.S. Abujam, G. Paswan, U.C. Goswami, S.P. Biswas. Socio-economic status of the fisher folk of upper Bahmaputra River: a case study in Jankhana village of Jorhat district. *International Journal of Applied Biology and Pharmaceutical Technology*. 2012; 3(4), 338-341.
8. A population based study on the health seeking behaviour among the fishermen community for their illness in Ennore creek. Dr. GomathyParasuraman, Dr. Arun T Mithrasan, Dr. BWC Sathyasekaran, Dr. G. Palani, Dr. M. Anitha Rani, Dr. G. Aishwarya. *Indian Journal of Medicine and Healthcare*. 2015 May; 4 (1), 341-349.
9. P.T. Jasna, SanghamitraPalai. Socio-Economic Conditions of Fishermen Population: With Special Reference to ChombalaHarbour, Kerala. *Indian Journal of Economics and Development*. 2016 April; 4(4), 1-8.
10. The impact of water pollution on the socio-economic status of the stakeholders of Ennore Creek, Bay of Bengal (India): Part I. V. Shanthi and N. Gajendran. *Indian Journal of Science and Technology*. 2009March; 2(3), 66-79.

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