

A Comprehensive Review on the Socio Economic and Technological Profile of River Side Fishermen Community in India

A. Bakshi*, A.K. Panigrahi**

Abstract

Pollution is, undoubtedly, the most frightening issue of concern among all recent environmental hazards. It has been established that aquatic ecosystem is mostly harmed by the impacts of pollution among all the types of ecosystems in India. Loss of aquatic diversity, to be more precise, loss of fish diversity is one of the commonest consequences of pollution in aquatic environment. It casts serious threat to the human society mostly to those whose occupations are directly related to rivers, pond or other waterbodies eg., fishers, fish dealers etc. It has been reported by several authors that more or less all the rivers of this planet are being threatened by gradual degrading ecological conditions. Since, the productivity, especially fish yield, has decreased alarmingly, fishers, dependent on this river for long, are on the verge of altering their occupation in most cases affecting the total socio-economic structure of the riverside society. To develop the fishing industry a comprehensive knowledge on present socio economic condition of the fishermen community and their knowledge dispersal strategies should be reviewed. In order to this, attempts have been done to prepare a comprehensive review on the aforesaid topic.

Keywords: Socio Economic Structure; Fishermen Community; Knowledge Dispersal; Pollution; Diversity.

Introduction

River has been casting a deep impression on the livelihood of the riverside dwellers since years. Naturally, disturbances of the river impose adverse impact on the societies dwelling the riverine area. For this, studies on socio-economic structure of the riverside villages seem to be inevitable to find the complete impact of pollution on river and the effect that inflicts on the society. According to Bhaumik and Pandit (1994), various parameters for determining socio-economic status of any society such as age, caste, education, occupation, social participation, income, experience, farm size of fishers, are said to be positive and significantly correlated with attitude towards fish farming.

Here, age and experience, income, caste distribution, education, alternate occupation options and knowledge dispersal of fishers have been investigated to draw a clear idea about impact of river on the socio-economic structure of any river side area.

Author's Affiliation: *Ex- Research Scholar, Ecotoxicology, Fisheries and Aquatic Extension Laboratory **Professor, Department of Zoology, University of Kalyani, Kalyani, West Bengal 741235, India.

Reprint's Request: A.K. Panigrahi, Professor, Department of Zoology, University of Kalyani, Kalyani, West Bengal 741235, India.

E-mail: panigrahi.ashis@gmail.com

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Age of the Fishermen

According to Librero (1985), most of the fishermen use to spend about half of their life in fishing in Philippines. They also reported that fishermen spend an average of 211 days per year. It reflects the fact that fishermen usually rely only on the productivity of adjacent aquatic system throughout their life. Bhaumik and Pandit (1994) studied on the age of fishermen at some beels of West Bengal. According to them, most of the fishermen are engaged in fishing varied through a range of 18-62 years of age. Dutta Roy (2012) and Panigrahi and Bakshi (2014) have reported the same pattern of age distribution of the

fishermen from different harvesting sites *i.e.*, artificial (Ornamental fish farm) and natural Churni (river).

Caste of the Fishermen

In India, a number of micro level studies have been led by different Governmental agencies, Government personnel and researchers to describe the socio-economic condition of the fishermen family and the fact has been reported that all the families in riverside areas are not found to be associated with fisheries activities. Only 62.1% from fishermen community and 29.9% from other communities being found involved in fishing during a study on river Churni side areas (Bakshi, 2016). These have been reported as Government articles in various journals. Halder *et al.*, (1988) reported that the fishermen majority belongs to "Scheduled caste" community in villages of West Bengal.

Central Inland Capture Fisheries research Institute 'CICFRI' (1990) has done a commendable work related to sociological survey of the fishing families of the Narmada river. It was reported that fishing families beside Narmada river comprise of 31.0% "Schedule caste" families, 1.5% "schedule tribe" families, 63.6% families of the "other communities" whereas, 3.9% fishers have been reported as non-respondents. Bhaumik and Pandit. (1994) conducted similar investigation on some beels of West Bengal and found that majority of the fishermen belongs to "schedule caste" community.

Educational Qualification of the Fishermen

All round development of any society is achieved basically by the invasion of knowledge and education. Likewise, proper knowledge on fishing and gears ensures better economic growth of any fishermen society. However, most of the fishermen are basically found to be illiterate or merely have primary education.

Valiakandathil (1970) has studied on socio-economic condition of the fishermen of Kerala and reported that literacy rate recorded for Poonthuria, a fishing village of Kerala was only 22.7% that was dominated by primary educated fishermen and 14.7% for Balusutippa, a fishing village of Andhra Pradesh.

According to a report by Mammen (1984), in Kerala among all the fishermen, only 1.94% have been found to be SSLC qualified, 0.2% graduates, 0.2% postgraduates. During the study, Panigrahi and Bakshi (2014) have also reported the fact that illiteracy is the basic problem of the under survey area.

Income of the Fishermen Family

Bhaumik and Saha (1994) studied on the income and its sources for the fishermen at Sundarban. They reported that main source of income of fishers is fishing. Siddiqui (1996) specified that income of fishermen is usually depending upon the catches of the fishes obtained from voyage to voyage and their marketing. In a separate study, it has been found that fishermen community is mainly distressed, mostly lacking in education with low income level (Akhtar, 1995). The fishermen have been found to be involved in collection of seed and repairing of boats as well as weaving nets during their leisure time. During fishing season they have been found to be fully engaged in fishery activities but during off season they have to explore alternative occupation opportunities like honey collection, fire wood collection and agricultural activities for their livelihood. Fishers of our study area have also been found to battle against poverty due to ecological degradation of the river Panigrahi (and Bakshi, 2014).

Fishermen and Alternate Occupational Options

The fish diversity of the aforesaid river has been facing the threat of declination since years (Das and Chakrabarty, 2007). Fishing and fish marketing cannot be the only option for the fishers of river Churni as the productivity of the river is said to be declining (Das *et al.*, 2007). In some beels of West Bengal, Panigrahi *et al.*, (2015) have reported that ecological condition of any river system cast direct impact on fishers' economic condition. Panigrahi and Bakshi (2014) have found that ecological degradation and less productivity of any river system pose adverse impact on riverside economy stressing fishers to alter their soul occupation, fishing. Bhaumik and Pandit (1994) found that the fishermen cannot undertake fishing round the year owing to observation of conservation measure for which they engage themselves for alternative job for their livelihood. They observed that most of them earn between 401- 500 per month followed by Rs. 301-400. It was reported that the income of fishermen during off-season varies between Rs. 201-300. Basavakumar *et al.* (2011) described fishermen groups as full time, part time and occasional during a survey in Karnataka. Thus, it is not very astonishing fact that fishers usually have to opt for other occupations during unproductive or less productive period to sustain their normal livelihood. The same division among the fishermen community has been reported by Bakshi and Panigrahi (2012) with no exception in case of River Churni, West Bengal based fishing community.

Knowledge Dispersal Strategy of Fishermen Society

The attitude of inland fisherman community towards cultural and social activities can be understood by determining their level of interest in reading newspapers, listening to radio, watching television programmes and attending other socio cultural programmes.

A study has been conducted in a village of Dharwad district, Karnataka to construct the sociological status of fishermen by Basavakumar *et al.* (2011). The study has revealed that 69.18 percent of the fishers' population listened to radio programmes regularly and 26.16 percent occasionally. Only a small portion of the population (4.65%) never listened to radio. With regard to specific krishi programmes like "krishiranga", it was found that 44.44 percent of fishermen are regular listeners. Since all the families are located in a single colony, there is very good interaction among them about agricultural and fishery programmes broadcasted by the All India Radio (AIR) and the recently launched Krishi Community Radio (KCR) FM 90.4. In Dharwad district this Radio Channel is exclusively known for broadcasting programmes in regional language on agriculture and allied sciences. Pattanshetti (2010) has reported that the programmes broadcast by krishi community radio (KCR) are increasingly becoming popular. Beegum (2006) has reported in a separate study that 16.02 percent of the fisherman population listened to radio, while 7.97 percent watch TV programmes related to fishing knowledge in Kerala. Panigrahi and Bakshi (2014), during the survey of some fishers' villages in Nadia district have reported about one third of total respondents (36.25%) as regular listener to TV or radio programmes whereas majority of the respondents have been found to be occasional in this manner. In case of newspaper reading, maximum numbers of respondents (45%) have been found hardly interested. Though, active participation in socio-cultural gatherings has been found to be rare in case of major respondents (42.08%), they often attend the gatherings.

Fishermen and their Living Habits

Study has been revealed that most of the fishermen in Narmada Basin live in very poor housing conditions. Majority of the fishermen there live in huts made of mud; few of them also have houses made of cement and bricks (Sharma *et al.*, 2010). An investigation has revealed that smoking, betel-nut chewing and use of liquor were the common habits among all adult fishermen and fisherwomen in Dharwad district, Karnataka. This has also been

found that though economic and social restrictions have been imposed there on the use of liquor, 84.21 percent of family heads take liquor regularly and remaining population take liquor occasionally along with smoking habit. The pan chewing habit is found to be regular among adult fisherman Basavakumar (*et al.*, 2011).

Fishermen and Fishing Crafts and Gears

Deficiency of proper equipment or instruments related to fish cultures has been found to hamper the socio-economic growth of fishermen (Sharma *et al.*, 2010). House, fishing gears, agricultural and, household articles, cattle, sheep, poultry etc. are considered as assets of fishermen family (Basavakumar *et al.* 2011). In a survey in Kerala, Basavakumar *et al.* (2011) estimated that the type and number of gears owned by the families have direct impact on the income earned by each individual. The Number of gears owned by the family has been found to differ with the number of fishermen attending fishing works. In Dharwad district nearly 43.85% of families own 1-2 gears and 29.82 per cent of families own 3-4 gears. Remaining families own more than four gears. Most commonly used gears by all fishermen are cast nets and gill nets of varying mesh sizes. Most of them make their own nets. As these two nets are not specific for any individual species, all varieties of fish get caught in these. Sharma *et al.* (2010) found that most used nets in Narmada Basin by fishermen are Scoop nets, Cast nets, Hook-lines net, Drag-nets, Gill-nets among which gill nets are most common and abundant. Bakshi (2016) have reported that economic condition of the fishermen beside River Churni, West Bengal has not found to be so good that they can afford modern technical gadgets for the fishing and other purposes. Cast nets, handnets and gill nets are usually used to catch the fishes in these areas. Large nets are also used to construct traps with the help of bamboo which are also used for the catchment purposes. Most of them make their own nets.

Conclusion

Socio economic parameters such as age, caste, education, occupation, social participation, income, experience etc., of present India have been discussed in this article. The study has revealed that the fishers are mostly of middle-aged or old. Major part of the fishermen of India has been found to belong among the Scheduled cast, Scheduled tribe among OBC (Other backward community)-A & B. Several authors

like Mammen (1984), Bhaumik and Pandit (1994), Bakshi (2016), Panigrahi and Bakshi (2014) have established the aforesaid statistics. The fishers are mostly illiterate or school drop outs in India. The similar statistics has been reported that fishermen community is mainly distressed, mostly lacking in education with low income level (Akhtar, 1995). Alteration of occupation opportunity is very common phenomena in Southern part of the country. It has been also reported that fishermen could not go for fishing round the year owing to observation of conservation measures and during that period they engaged themselves for alternate jobs for their livelihood (Bhaumik and Pandit, 1994). Review has been revealed that the income level of fishers is very low around Rs 5000-7000 possessing BPL (Below poverty level) ration cards. The investigations have revealed that smoking, betel-nut chewing, chewing of tobacco products and uses of liquor are most common habits among all adult fishermen and in some young also. Females of the family are also addicted with betel-nut chewing or others. Chewing of Betel Leaves along with betel-nut has also been found to be very common to both men and women. It has been established that sociological and economical constraints have imposed on the use of liquor. A report has been shown that 65.41 percent of the fishermen beside river Churni take liquor regularly and most of the remaining population takes it occasionally along with smoking and other habits (Panigrahi and Bakshi, 2014). The attitude of the fishermen community towards the social and cultural activities have also been investigated with the help of some pre-tested parameters *viz.*, reading of newspaper, listening to radio, watching television programmes, participating and attending socio-cultural gatherings etc. A very few percentage of fishers are found to be very much attached to the socio-cultural activities. A further development in present condition can only be brought about by introducing new culture practices of fish in natural water bodies. Bakshi et al. (2016) have recommended the practice of ornamental fishery in the lower stretch of the river Churni for further development of socio economy of fishermen community. The review will help to outline the possible strategies for the development of fishers.

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