

FISHERY STATUS OF UNDIVIDED GOALPARA DISTRICT, ASSAM WITH REFERENCE TO SOCIO -ECONOMIC CONDITIONS OF FISHERS

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ABSTRACT: The studies were conducted during 2008–2010 to evaluate Fishery status and its bearing on socio-economic condition of Fishers Community of undivided Goalpara district of Assam. A total of 97 species belongs to 56 genera of 26 families were recorded from various fish landing centers of the region during study period. Fishers catch fish in the river throughout the year. However, fishing intensity decreased during winter season due to decreasing water level. Fish catching ratio were also found in decreasing trend day by day due to increase in the level of fishing intensity as well as due to increasing numbers of fishers. The results of the co-efficient of correlation calculated from socio-economic data clearly exhibited that income-family size; expenditure - family size is highly related to each other in all the fishers groups.

Key Words: Fishery Status, Goalpara District, Assam, Socio-economic condition, Fishers

INTRODUCTION

Fisheries contribute significantly to India's national economy and provide a livelihood to an estimated 10 million people. Despite various measures taken by governmental and non-governmental agencies, the fishers, particularly the small-scale fishers, are by and large poor. Moreover, in India, development of fishermen is often restricted to the traditional fishing communities near the coastal areas in maritime states while the interest of those associated with inland fishery is relatively neglected (Dutta and Kundu, 2007).

In Assam, the indigenous fishing communities are not evenly distributed and there is an over all tendency to stick to riverine areas of the state. In several areas, the numbers of the indigenous and tribal fishers are decreasing while there appears an increasing presence of emigrant fishers. Because of increasing demand for fish, developmental activities on fishing grounds, lack of initiatives to recruit, over-fishing, flouting of fishing norms, etc. capture fisheries have undergone a declining tread over the past few years.

Measures to uplift the socio-economic status of the traditional fishers in our country can largely be equated to that in other developing countries. The observation of the Sustainable Fisheries Livelihoods Program (SFLP) in West Africa, that the factors that contribute to poverty in fisheries stakeholders including lack of information, skills and education, poor status of fisheries resources, lack of credit, poor organization and political representation, unexpected losses of human or other capital assets, lack of alternative employment and lack of infrastructure and access to markets, deserves merit. Hence, socio-economic status of the fishers must be taken into consideration for the success of fishery management program. The present paper is an effort in investigating the socio-economic characteristics of a traditional fisher community, popularly known as been fishers in the north-eastern part of India.

MATERIALS AND METHODS

Study area

The investigation was carried out in a riverine locality in the southern bank of the Brahmaputra River. The area is known as Pachpeer Char which comes under Ward No. 1 of Dhubri town, Assam, India. The Char is hardly at a distance of 1 Km from the centre of Dhubri town, headquarter of Dhubri District. During rainy season, it can be reached only by boats while during flood the area remains marooned.

In order to have an idea of the socio-economic condition of the fishers of the area, data have been collected by personal interview method on the basis a pre-structured questionnaire. Random sampling method was followed to collect the required informations. In addition, data and information was also obtained from several individuals connected with the fishers and personal field observation.

Data collection

Data were collected using questionnaire and Participatory Rapid Appraisal (PRA) tool such as Focus Group Discussion (FGD) with the fishermen and the womenfolk in the fishing village where the survey was conducted. Questionnaires were collected from 1581 individuals out of 221 families. Data relating to demographic and socioeconomic parameters such as family size, occupations, income, expenditure, land holding, literacy, health etc were collected. Collected data were analyzed adopting Karl Pearson's co-efficient of correlation to evaluate degree of relationship among the parameters. To evaluate consumption elasticity Engel curve were applied.

$\log ei = \alpha + \beta \log eo$, where, ei denotes expenditure and eo denotes total income. The parameter α , β can be calculated by least square methods.

SOCIOECONOMIC CONDITION OF THE FISHERS**Households**

Out of the total 221 households, 215 families belong to Schedule Caste and only 6 families belong to General Caste (Muslim Community). One or more members of the household are or were once engaged in fishing or fish-related activities. During the last two decade around fifteen fishermen families of the area have migrated to Tinsukia district in Upper Assam. Each of the 221 families live in this compact area having a holding of 3-4 Katha (1 Bigha = 20 Katha) of land with 1 to 2 living rooms, in some cases the single room being used both as living room and kitchen. Out of these 61 houses were built under Indira Awas Yojana.

Education

The education level of the respondents was very low. There are only two schools in the area - Pachpeer Hindi Primary school, established in 1966 and Samaj Kalyan M.E. School, established in 2007. For studies in high school and college, the aspirants need traverse a minimum distance from 1 to 3 Km. In such a state, achieving total literacy is still a distant goal despite diffusion of mid-day meal and other efforts.

Occupation

Out of the total adult population 94% depend on fishery while the rest earn their livelihood from different small business. Only 3 persons are having government job. Out of the able adult females around 75 percent serve as part-time maid servant, mostly in Dhubri town, either throughout the year or for some months in temporary basis. There are 3 ASHA workers in the area. The average income of a family is about Rs. 2000/- only. There is significant variation in the annual income per family.

Family Size

Family size is an important socio-economic indicator as it has bearing on the income, literacy, access to amenities, housing, fishing appliances, etc. The study revealed that the average size of the family was 7 members.

Health status

Health status is the reflection of the livelihood status. Individual poverty, lack of awareness, illiteracy, absence of public health measures, etc. have left impact on the health and hygiene of the population. The survey brought into light multiple cases of frequent jaundice, dysentery, asthma and viral fever in most of the households.

Sanitary conditions:

The sanitary condition was observed to be very poor. There are only three sanitary latrines in working condition catering to the needs of three families. Two sanitary latrines, which developed fault about a year after construction is now in abandoned condition. Therefore, barring the three families, all the inhabitants go to the nearby bank of the Brahmaputra for defecation.

Housing type

There are three types of houses in the study area: (1) Katcha house made of bamboo with mud floor and CI sheets in the roof, (2) Semi Katcha houses with wooden wall, mud floor and roof with CI sheets and (3) Pucca house made of brick. The percentage of Katcha, Semi Katcha and Pucca houses are 47%, 22% and 31% respectively.

Monthly Fish Consumption

The results of average fish consumption for all the households in the study area are similar. There is variation in the amount of fish consumed in the peak fishing season and lean fishing season. However, the per capita monthly fish consumption ranged from 1 Kg to 1.2 Kg.

Living Plight

In spite of proximity to the urban people of Dhubri, the living conditions of the fishers have undergone little change over the years. There was no tendency on the part of the young to shift to other occupations. Although many of the youths spend the lean period generally idly or playing cards, barring only 7 youths, others are reluctant to earn livelihood from the bamboo-splitting industry nearby which has engaged hundreds of young boys. It appeared that the parents bother least about the education of their children but are satisfied as those going to school get mid-day meal and uniform. The levels of poverty observed in the families hardly enable them to save any tangible amount of their meager income. In spite of such deplorable condition, 11% of the households have managed to purchase TV set, while almost equal percent of youths own mobile handset.

Fuel

Circumstances have compelled most of the fishers of the area to rely on age-old fuel source. Only 2% of the households have managed to get LPG connection. The remaining households still continue firewood and use earthen chulla for cooking. High price of kerosene have debarred them to opt for kerosene stove. Those who avail public distribution system and get little amount of kerosene, among others, sell the commodity at higher price. Fire woods are mostly collected from river bed or riverine areas.

Fishing tools

The need for net and boat for good income from fishing cannot be ignored. The number of fishers having own fishing tools are shown below. Those without essential tools, procure these on hire basis.

Drinking Water

Need for pure drinking water is a must for keeping good health of the population. It is a matter of great concern that the Pachpeer Char is still in a pathetic condition in this direction. All the households use the water of the river Brahmaputra for drinking and other household purpose in absence of public health measures.

PDS facilities

Almost 95% of the populations are covered under public distribution system. Out of these, 10 families get rice at very subsidized rate of Rs. 3/- per kg. While there are 22 BPL (Below Property Level) card holders.

Fish catching and marketing

Fishers catch fish in the river throughout the year, however, fishing intensity decreased during winter season due to decreasing water level. Fishing is done using different types of seine nets, pull nets and cast nets along with various forms of traps. Fishers use nonmechanized boats in fishing operation. They start fishing at about 11 pm and continue till dawn. Fishing may also from dawn to noon or afternoon during the peak season. Fish catching rate is very low at present due to high fishing pressure. The catch is mainly comprised of small fishes and prawns. The fishers sell their catch early in the morning at the site of the beel to the middlemen or sell it to the market themselves as retailers. Fishers are fishing during the daytime market their catch in the evening.

Present Status of Fish Diversity

A total of 97 species belongs to 56 genera of 26 families were recorded from various fish landing centers of the region. Among them; Cyprinidae was the most dominant family with 39 representative species (42.8%) recorded in the various landing centers of the area.

RESULTS AND DISCUSSION

The results of the co-efficient of correlation calculated from socio economic data clearly indicate that income-family size; expenditure - family size are highly related to each other in all the groups. However, degrees of correlation are lower in high income group than that of lower income group. It has been revealed that in lower income group, family size has a bearing on both income and expenditure of the household. Literacy and health does not have any effect on income or expenditure. However in higher income group slightly higher degree of correlation is found between income and expenditure on education and health, presumed that the literacy rate of the area is limited to family of higher income group only. Table-1. Fig-1 to 3.

Table - 1: Population of Pachpeer Char Village

Sl. No.	Category	Numbers	Percentage
1	Male	818	52
2	Female	763	48
3	Total	1581	100

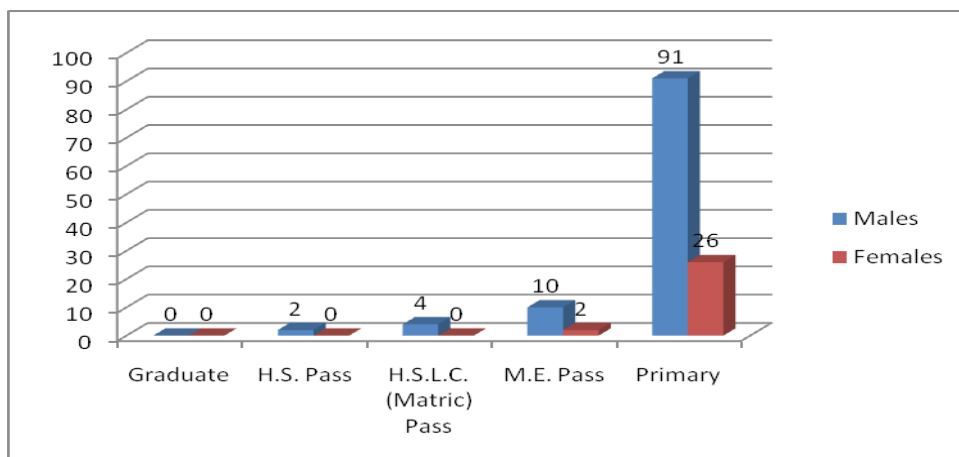


Figure - 1: Education level of the Villagers

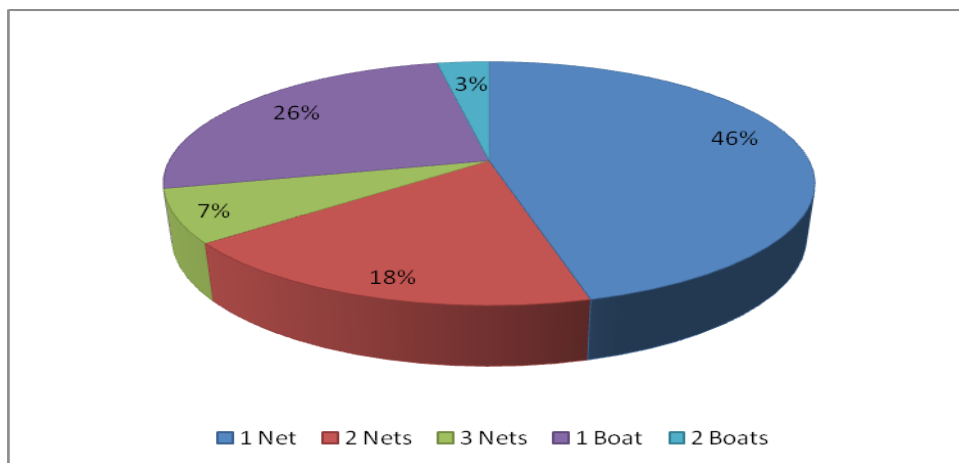


Figure-2: Essential fishing tools.

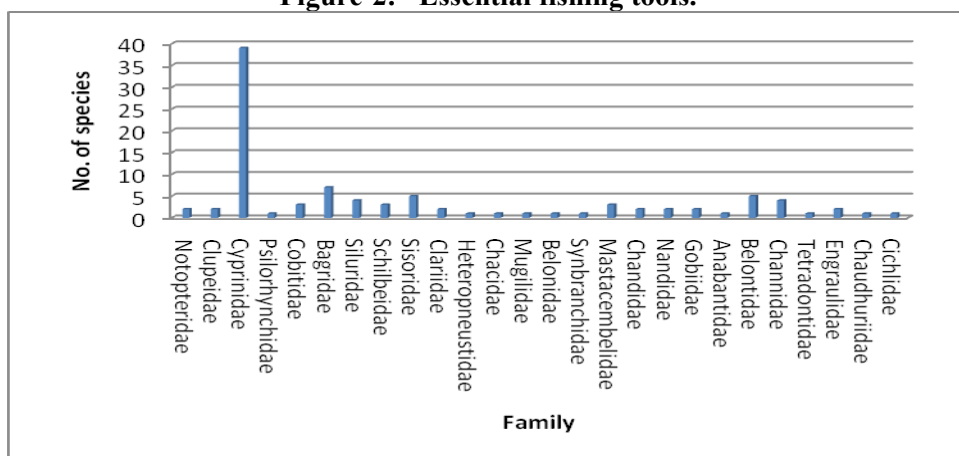


Figure-3: Family wise distribution of fish species recorded

Again land holdings also do not have any influence on income of the lower income group. Their income and expenditure are directly correlated to food, cloth and fuel.

However, in higher income group the income and expenditure are highly correlated to food, cloth and fuel though it also shows fairly positive correlation among income and expenditure on land holding and revealed that higher income group occupies most of the land. In lower income group literacy was not having any impact on generating insignificant income. This is due to fact that the families of lower income group are mostly uneducated and the educational status of those few who are educated being of primary level cannot bring about significant change in employment scenario.

The size of the family in higher income group found to be smaller than that of lower income group. Therefore, family size affects households' consumption and the extent of the effect varies between commodities of consumption. According to Choudhury (1989) household's size is an important factor in the population of economically backward community in Assam and it is desirable to consider its influence in analyzing consumer behaviour. Present findings are also in conformity with the above especially in lower income group. The consumption pattern in the household budget of all the income group has been calculated through double log method of Engel curve.

Expenditure elasticity of a commodity with respect to total expenditure measure the percentage change in the quantity demanded by a commodity resulting from a given percentage change in the expenditure. The chosen forms of the Engel curve for different items of consumption presented here show that elasticity η for food based on double log method were found to be non elastic ($\eta < 1$) in all groups. Therefore, food is considered as one of the most necessary item. Elasticity of cloth was found to be elastic among lower income groups. Because cloths has been treated as luxurious items for the economically weaker section of the population since cost of cloth is relatively higher considering the per capita income. However, in higher income group it is calculated as non elastic one. Fuel was also found to be non elastic in all groups. Education and health are found to be elastic in higher income group and were non elastic in lower income group.

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