

Socio-Economic Status of Fishermen Community of Chatla Beel of Cachar District, Assam

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Abstract: In this article, a study was carried out in three villages, namely Baluchuri, Dargakona, and Mithapani of Chatla Floodplain Lake to know the socio-economic condition of fisherman community. The community is a part of Kaivartya community, a traditional fishing community mostly prevalent in Assam and West Bengal. A total of 21 attributing parameters were considered and a detailed questionnaire was prepared from which the survey was conducted. It was observed that all the respondents are male population. On average, 38.89% were below 30 years of age, 45.56% were in between 31-50 years' age group, and remaining were in the age group of above 50 years. A huge chunk of population fisherman was found to be married with low literacy rate. Similar, other aspects contributing in the socio-economy of the fisherman have been studied in details.

Keywords: Fisherman; Baluchuri; Dargakona; Mithapani; educational status.

1. Introduction:

Villages are basically food producing units. They produce not only for their own necessity, but also for the urban societies which are not for producing foods. Rural economy includes activities that are either agricultural or closely linked with agricultural production, i.e. allied agricultural production activities (Purkayastha and Gupta, 2015). In the process of production, rural workers enter into various kinds of economic relationship with each other. Through these relationships, cultivators and food producers get access to credit, labour and other resources and landless labourers get access to employment. Fishing is one of such economically important allied agricultural production activities. Fish is highly nutritious, so even small quantities can improve people's diets (FAO, 2007b). They can provide vital nutrients absent in typical starchy staples which dominate poor people's diets (FAO, 2005b). Fish provides about 20 per cent of animal protein intake in 127 developing countries (Thorpe *et al*, 2006). Fisheries can also contribute indirectly to food security by providing revenue for food-deficient countries to purchase food. The number of people directly employed in fisheries and aquaculture is conservatively estimated at 38 million, of whom over 90 per cent are small scale fishermen (FAO, 2005b). In addition to those directly employed in fishing, there are "forward linkages" to other economic activities generated by the supply of fish (trade, processing, transport, retail, etc.) and "backward linkages" to supporting activities (boat building, net making, engine manufacture and repair, supply of services to fishermen and fuel to fishing boats, etc.). There are three categories of rural poor in India. First, those who have landed properly, but due to lack of proper facilities they are poor. Second, those who have skill but do not have landed property for production purpose and fighting with poverty due to lack of opportunities and lastly those who have neither skill nor land. Fishing is such a production activity which can provide economic benefit and employment to all the three categories of poor, thereby leading to poverty alleviation and upliftment of rural socio-economy.

Fishing is not a new practice in India. Evidence of fishing was found among the pre-historic artifacts (Allchin and Allchin, 1982; Sarkar, 1984), in the artifacts of Harappan pottery, motif and civilisation of Indus valley (Bagchi, 1995; Allchin and Allchin, 1982). Some fishermen are specialised and rely entirely on fisheries for their livelihood, while for many others, especially in inland fisheries and developing countries, fisheries form part of a diversified livelihood (Allison and Ellis, 2001). In India, according to Sinha and Srivastava (Sinha and Srivastava, 1991), the return from aquaculture can be up to fifteen times higher than traditional agriculture.

In Assam, floodplain wetlands constitute important fishery resources as 23.15% of area of Assam is floodplain (ENVIS-Assam Website). Cachar district occupies a geographical area of 3,786 sq. km. and wetlands are known to cover 10419 ha i.e. 2.75 per cent of its total geographical area (NWIA, 2010). Wetlands provide ecological security to biodiversity as well as economic security to large number of fishermen of the entire area.

2 Methodology:

2.1 Study Area:

Chatla wetland is a floodplain wetland in Cachar district of Southern Assam, India which is located at an elevation of 43.6 msl, at a latitude of $24^{\circ}42'697''$ N and a longitude of $92^{\circ}46'264''$ E. It is formed by meandering the river Ghagra, which is a south bank tributary of river Barak, the major river of South Assam, North East India. Chatla is situated 20 km south of Silchar town, Assam. It has a maximum water spread area of 1750 ha when inundated (outburst by flood). Chatla floodplain has 1500 fisheries and 12 *beels*. It has small inlets like Jalingachhara, Baluchuri Dargakona, Salganga etc. and a single outlet Ghagra (a tributary of river Barak). During flood, water enters through its several inlets and exits with its outlet river Ghagra which drains into river Barak. It has a unique hydrology and acts as a natural flood control basin of the region. It maintains a hydrological network comprising its several inlets and its single outlet through two rock formations that help to retain flood water for around 6-7 months a year. The topography of the floodplain comprises small hillocks strewn within low-lying areas surrounded by tea gardens. The fully inundated floodplain is locally called a *Haor*, while the depressions retaining water for varying periods of time in the dry season are called *beels*. The wetland basin has about 32 villages whose economy is dependent on fish and agricultural crops produced in the area. Thus, this floodplain ecosystem plays a significant role in the economy of the area in terms of their overriding importance as repositories of fish as habitats for resident and migratory birds for storing excess flood water and for supplying irrigation water to nearby fields in the dry season as gravid fishes of several species migrate in large numbers into the *beel*. The Google satellite map of Chatla Wetland is shown in Fig. 1.

Present study was carried out in three villages, namely Baluchuri (Site I), Dargakona (Site II) and Mithapani (Site III) which are located in Chatla floodplain area. Almost all male inhabitants of the area are fishermen by profession. They belong to Kaivartya community, the traditional fishermen community of Assam and West Bengal. The locations of study sites are given in Fig. 2.

2.2 Data Source:

The fishermen community is commonly understood as group, fishing in some area and engaged in more or less the same pattern of fishing (Biswas, 1996). This study is based on primary data collected during March, 2020 to

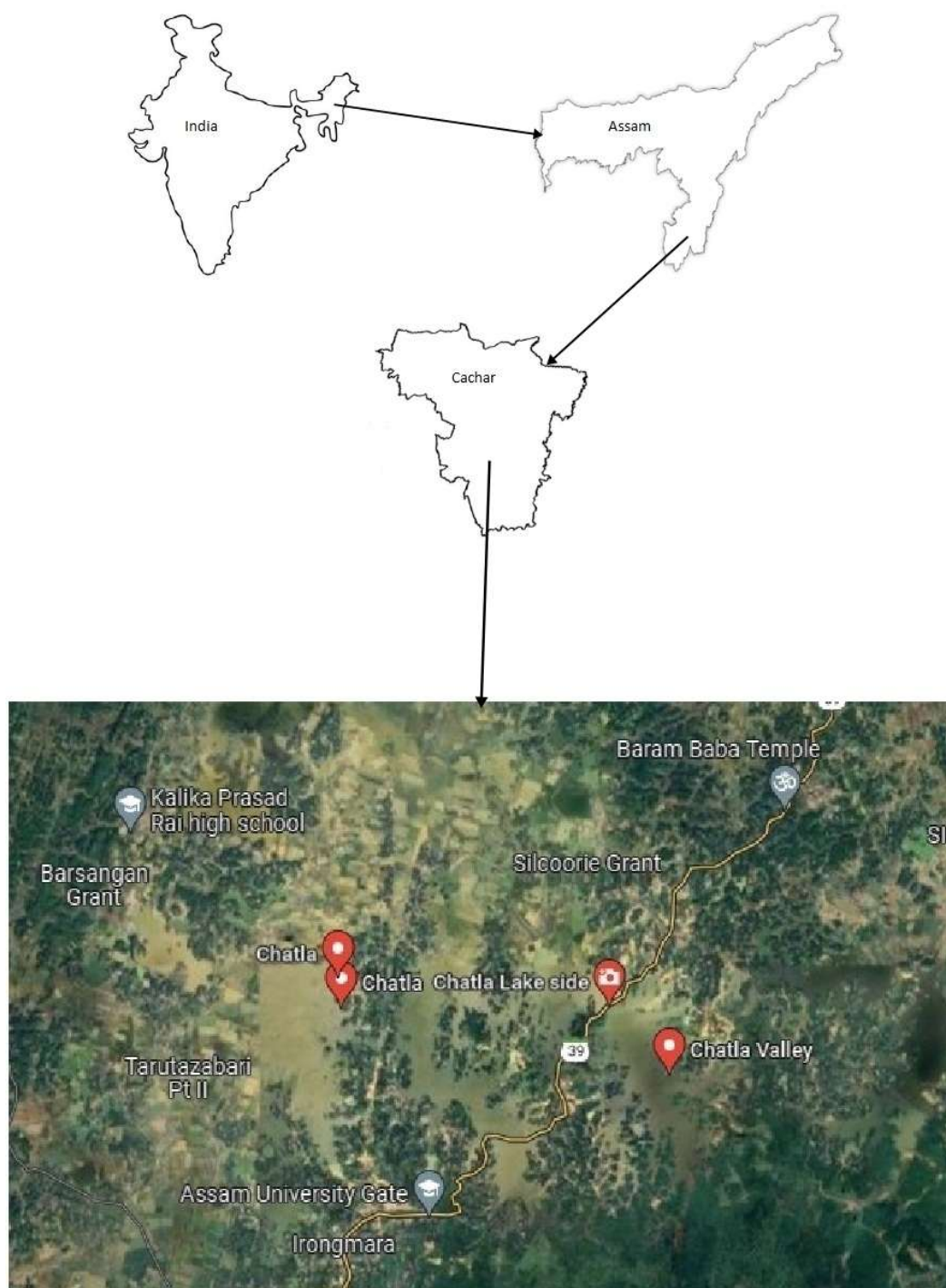


Figure 1: Google Satellite Map of Chatla Wetland

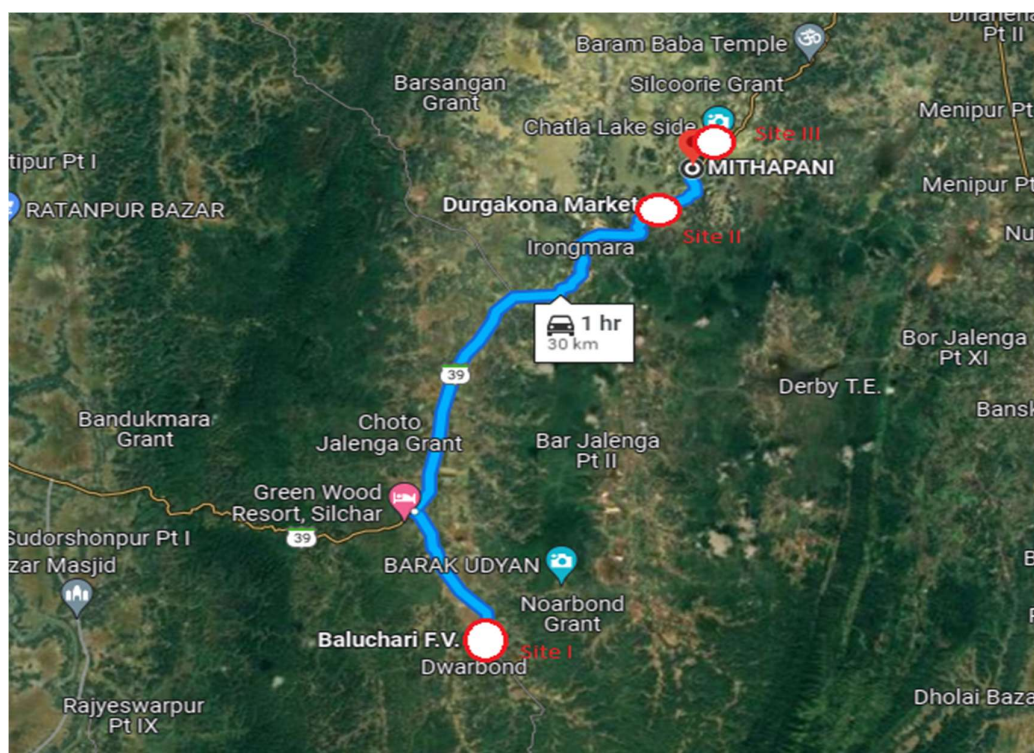


Figure 2: Location of Study Sites in Chatla Wetland

February, 2021. Information on socio-economic condition was collected by preparing interview schedule with structured and semi structured questions, from 90 respondents (30 respondents from each of the three villages), who belong to fishermen community and each representing a particular family. Different other methods were applied for data collection which include Participant Observations and Focus Group Discussions (FGD).

3 Results:

The complete data on socio-economic status of fishermen community in the three sample villages are presented below. Each of the three villages are represented by 30 head of families.

3.1 General Information:

3.1.1 Gender:

All the respondents in the survey were male and none was female.

3.1.2 Age:

Table 1 shows the percentage of age distribution of fishermen in the three sample villages. On average, 38.89% respondents belonged to age group of bellow 30 years, 45.56% respondents belonged to the age group between 31-50 years and rest 15.56% belonged to the age group of above 50 years.

3.1.3 Educational Status:

Table 2 presents the percentages of respondents having different educational standards of the three sample villages. On average, 33.33% respondents are totally illiterate, 45.55% respondents are educated up to Primary/Middle School (1-7) standard, 15.50% respondents are educated up to High School (8-10) standard,

Table 1: Distribution of Fishermen w. r. to Age

Age	% of Respondents			
	Site I	Site II	Site III	Average
Upto 30 years	36.67	40.00	40.00	38.89
31-50 years	40.00	53.33	43.33	45.56
Above 50 years	23.33	6.67	16.67	15.56

Table 2: Distribution of Fishermen w. r. to Educational Status

Educational Status	% of Respondents			
	Site I	Site II	Site III	Average
Illiterate	36.67	30.00	33.33	33.33
Primary/Middle (upto 7)	43.33	53.33	40.00	45.55
High School (8-10)	16.67	13.33	16.67	15.56
Intermediate (11-12)	3.33	3.33	6.67	4.44
College or Above	0	0	3.33	1.11

4.44% respondents are educated up to Intermediate (11-12) standard, and the rest 1.11% have taken college level or more higher education.

3.1.4 Marital Status:

Table 3 elaborates the percentage distribution of respondents having different marital status of the three selected villages. On average, 64.44% of the respondents are married, 32.22% of the respondents are single, and the rest 3.33% are otherwise.

3.1.5 Social Category:

All the respondents in this survey are of Kaivyartha community and they all belong to Scheduled Caste (SC).

3.1.6 Family Type:

Table 4 presents the percentage distribution of respondents with different size of family of the three selected villages. On average, 20.00% of the respondents have nuclear families and the rest 80.00% have joint families.

3.1.7 No. of Family Members:

Table 5 presents the percentage distribution of respondents having different number of family members of the three selected villages. On average, 7.78% of the respondents have less than 2 members in their families, 71.11% of the respondents have family members in between 3 and 5, 15.56% of the respondents have family members in between 6 and 7 and the rest 5.56% have families with more than 7 members.

Table 3: Distribution of Fishermen w. r. to Marital Status

Marital Status	% of Respondents			
	Site I	Site II	Site III	Average
Married	53.33	76.67	63.33	64.44
Single	43.33	16.67	36.67	32.22
Other	3.33	6.67	0	3.33

Table 4: Distribution of Fishermen w. r. to Type of Family

Family Type	% of Respondents			
	Site I	Site II	Site III	Average
Nuclear	26.67	13.33	20.00	20.00
Joint	73.33	86.67	80.00	80.00

Table 5: Distribution of Fishermen w. r. to No. of Family Members

No. of Family Member	% of Respondents			
	Site I	Site II	Site III	Average
Upto 2	6.67	6.67	10.00	7.78
3-5	76.67	73.33	63.33	71.11
6-7	10.00	13.33	23.33	15.56
Above 7	6.67	6.67	3.33	5.56

3.1.8 Type of House:

Table 6 gives the percentage distribution of respondents having different types of houses of the three selected villages. On average, 4.44% of the respondents have residents with pucca house, 18.89% of the respondents have semi pucca houses and the rest 76.67% have kachcha houses.

3.1.9 Major Occupation:

Table 7 presents the percentage distribution of respondents having different types of major occupation of the three selected villages. On average, 35.56% of the respondents have agriculture as their major occupation, 45.56% of the respondents have fishing as their major occupation, 8.89% have fish trading as their major occupation, and the rest 10.00% have wage labour as their major occupation.

3.1.10 Annual Income on All Sources:

Table 8 presents the percentage distribution of respondents, w. r. to their annual income on all sources, of the three selected villages. On average, 12.22% of the respondents have annual income bellow Rs. 50,000/-, 37.78% of the respondents have annual income in between Rs. 50,000/- and Rs. 75,000/-, 35.56% have annual income in between Rs. 75,000/- and Rs. 1,00,000/-, and the rest 14.44% have annual income above Rs. 1,00,000/-.

Table 6: Distribution of Fishermen w. r. to Type of House

House Type	% of Respondents			
	Site I	Site II	Site III	Average
Pucca	3.33	3.33	6.67	4.44
Semi Pucca	16.67	13.33	26.67	18.89
Kachcha	80.00	83.33	66.67	76.67

Table 7: Distribution of Fishermen w. r. to Major Occupation

Major Occupation	% of Respondents			
	Site I	Site II	Site III	Average
Agriculture	33.33	33.33	40.00	35.56
Fishing	50.00	46.67	40.00	45.56
Fish Trading	10.00	6.67	10.00	8.89
Wage Labour	6.67	13.33	10.00	10.00

Table 8: Distribution of Fishermen w. r. to Annual Income on All Sources

Annual Income	% of Respondents			
	Site I	Site II	Site III	Average
Bellow Rs. 50,000/-	10.00	10.00	16.67	12.22
Rs. 50,000/- -- 75,000/-	36.67	33.33	43.33	37.78
Rs. 75,000/- -- 1,00,000/-	33.33	40.00	33.33	35.56
Above Rs. 1,00,000/-	20.00	16.67	6.67	14.44

3.1.11 Social Participation:

Table 9 presents the percentage distribution of respondents, w. r. to their participation in various social events of the three selected villages. On average, 76.67% of the respondents have low participation, 13.33% of the respondents have medium participation, and the rest 10.00% have high participation.

3.1.12 Source of Drinking Water:

Table 10 presents the percentage distribution of respondents w. r. to their source of drinking water of the three selected villages. On average, 5.56% of the respondents have their own well in their houses, 22.22% of the respondents use to drink water from public well, 66.67% use to have drinking water from public tap, and the rest 5.56% have house connection for drinking water.

3.1.13 Channel of Health Check-up:

Table 11 presents the percentage distribution of respondents w. r. to their channel of health check-up of the three selected villages. On average, 6.67% of the respondents attend to private doctors, 1.11% of the respondents go to

Table 9: Distribution of Fishermen w. r. to Social Participation

Level of Social Participation	% of Respondents			
	Site I	Site II	Site III	Average
Low	76.67	83.33	70.00	76.67
Medium	13.33	10.00	16.67	13.33
High	10.00	6.67	13.33	10.00

Table 10: Distribution of Fishermen w. r. to Source of Drinking Water

Source of DW	% of Respondents			
	Site I	Site II	Site III	Average
Own well	3.33	6.67	6.67	5.56
Public well	20.00	13.33	33.33	22.22
Public tap	70.00	76.67	53.33	66.67
House connection	6.67	3.33	6.67	5.56

Table 11: Distribution of Fishermen w. r. to Channel of Health Check-up

Channel of Health Check-up	% of Respondents			
	Site I	Site II	Site III	Average
Private Doctor	6.67	10.00	3.33	6.67
Nursing Home	3.33	0	0	1.11
Government Hospital	53.33	60.00	46.67	53.33
Local Medical Men	36.67	30.00	50.00	38.89

nursing home, 53.33% go to Govt. hospitals, and the rest 38.89% use to attend local medical men for their health check-up.

3.2 Fishing Programme:

3.2.1 Reason to Join Fishing:

Table 12 presents the percentage distribution of respondents, w. r. to reason of joining fishing, of the three selected villages. On average, 97.78% of the respondents showed tradition as the reason of fishing, none showed unemployment as the reason of joining fishing, 2.22% showed poverty as the reason of joining fishing, and again none showed job opportunity as the reason of joining fishing.

3.2.2 No. of Household Members Working With:

Table 13 presents the percentage distribution of respondents, w. r. to no. of household members working with, of the three selected villages. On average, 10.00% of the respondents work with 1 household member, 3.33% work

Table 12: Distribution of Fishermen w. r. to Reason to Join Fishing

Reason to Join Fishing	% of Respondents			
	Site I	Site II	Site III	Average
Traditional	100	100	93.33	97.78
Unemployment	0	0	0	0
Poverty	0	0	6.67	2.22
Job opportunity	0	0	0	0

Table 13: Distribution of Fishermen w. r. to No. of Household Members Working With

No. of Members	% of Respondents			
	Site I	Site II	Site III	Average
1	16.67	0	13.33	10.00
2	10.00	0	0	3.33
More than 2	0	0	0	0
Not at all	73.33	100	86.67	86.67

with 2 household members, and 86.67% do not have any companion from their household. None of the respondents have more than 2 household members working with them.

3.2.3 Technical Training:

It has been found throughout the survey that none of the respondents was a trained fisherman.

3.2.4 Satisfaction with Fish Price:

Table 14 presents the percentage distribution of respondents, w. r. to satisfaction with fish price, of the three selected villages. On average, 81.11% of the respondents were fully satisfied with price of fish that was fixed in the market, 18.89% were partially satisfied with price, and none of them were unsatisfied at all with the price.

3.2.5 Monthly Income Through Fishing:

Table 15 presents the percentage distribution of respondents, w. r. to their monthly income through fishing, of the three selected villages. On average, 22.22% of the respondents have monthly income through fishing bellow Rs. 4,000/-, 34.44% of the respondents have monthly income in between Rs. 4,000/- and Rs. 6,000/-, 35.55% have monthly income in between Rs. 6,000/- and Rs. 8,000/-, and the rest 7.78% have monthly income above Rs. 8,000/-.

3.2.6 Subsidiary Source of Income in No Fishing Time:

Table 16 presents the percentage distribution of respondents, w. r. to their subsidiary source of income in no fishing time, of the three selected villages. On average, 45.56% of the respondents have agriculture as the subsidiary source of income, 38.89% of the respondents have wage labour as subsidiary source of income, 10.00% have business as subsidiary source of income, and the rest 5.56% did anything else in the no fishing time.

Table 14: Distribution of Fishermen w. r. to Satisfaction with Fish Price

Satisfaction Status	% of Respondents			
	Site I	Site II	Site III	Average
Satisfied fully	86.67	76.67	80.00	81.11
Satisfied partially	13.33	23.33	20.00	18.89
Not satisfied at all	0	0	0	0

Table 15: Distribution of Fishermen w. r. to Monthly Income Through Fishing

Monthly Income	% of Respondents			
	Site I	Site II	Site III	Average
Bellow Rs. 4,000/-	26.67	20.00	20.00	22.22
Rs. 4,000/- to Rs 6,000/-	33.33	30.00	40.00	34.44
Rs. 6,000/- to Rs. 8,000/-	30.00	43.33	33.33	35.55
Above Rs. 8,000/-	10.00	6.67	6.67	7.78

Table 16: Distribution of Fishermen w. r. to Subsidiary Source of Income in No Fishing Time

Source of Income	% of Respondents			
	Site I	Site II	Site III	Average
Agriculture	43.33	46.67	46.67	45.56
Wage Labour	36.67	36.67	43.33	38.89
Business	13.33	10.00	6.67	10.00
Any Other	6.67	6.67	3.33	5.56

3.2.7 Average Amount of Daily Fish Catch:

Table 17 presents the percentage distribution of respondents, w. r. to average amount of daily fish catch, of the three selected villages. On average, 64.44% of the respondents have no regular daily fish catch, 17.78% have an average amount of fish catch up to 3 kg, 11.11% have an average amount of 4-5 kg of fish catch, and the rest 6.67% have an average amount of fish catch above 5 kg.

3.2.8 Type of Fishing Net:

Table 18 presents the percentage distribution of respondents, w. r. to type of fishing net they used, of the three selected villages. On average, 6.67% of the respondents have been using Gill net and Drag net each, 45.56% of the respondents have been using Cast net, and the rest 41.11% have been using other nets.

3.3 Impact of Fishery Industry on Socio-economic Development:

Table 19 presents the percentage distribution of respondents of the three selected villages w. r. to their thoughts about some facts on impact of fishery industry on socio-economic development. On average, 56.67% of the respondents agreed that they became economically viable in health and food security, whereas 31.11% disagreed

Table 17: Distribution of Fishermen w. r. to Average Amount of Daily Fish Catch

Amount of Average Daily Fish Catch	% of Respondents			
	Site I	Site II	Site III	Average
No Regular Daily Catch	80.00	66.67	46.67	64.44
Upto 3 kg	10.00	16.67	26.67	17.78
4-5 kg	6.67	10.00	16.67	11.11
Above 5 kg	3.33	6.67	10.00	6.67

Table 18: Distribution of Fishermen w. r. to Type of Fishing Net

Type of Net	% of Respondents			
	Site I	Site II	Site III	Average
Gill Net	6.67	10.00	3.33	6.67
Drag Net	10.00	3.33	6.67	6.67
Cast Net	43.33	40.00	53.33	45.56
Any Other	40.00	46.67	36.67	41.11

Table 19: Impact of Fishery Industry on Socio-economic Development

Statement	% of Respondents											
	Site I			Site II			Site III			Average		
	Agree	Disagree	Undecided	Agree	Disagree	Undecided	Agree	Disagree	Undecided	Agree	Disagree	Undecided
Economic viability in health and food security	60.00	30.00	10.00	53.33	33.33	13.33	56.67	30.00	13.33	56.67	31.11	12.22
Rural development	46.67	26.67	26.67	33.33	43.33	23.33	36.67	33.33	30.00	38.89	34.44	26.67
Help in eliminating poverty	16.67	60.00	23.33	13.33	63.33	23.33	10.00	56.67	33.33	13.33	60.00	26.67
Increase your income level	33.33	63.33	3.33	26.67	70.00	3.33	16.67	76.67	6.67	25.56	70.00	4.44
Improve your life style	6.67	73.33	20.00	10.00	70.00	20.00	3.33	63.33	33.33	6.67	68.89	24.44
Increase your social status	3.33	80.00	16.67	6.67	73.33	20.00	3.33	66.67	30.00	4.44	73.33	22.22

that and the rest 12.22% were undecided, 38.89% of the respondents agreed that rural development occurred as an impact of fishery industry, whereas 34.44% disagreed that and the rest 26.67% were undecided, 13.33% of the respondents agreed that fishery industry helped in eliminating poverty, whereas 60.00% disagreed that and the rest 26.67% were undecided, 25.56% of the respondents agreed that fishery industry raised their income level, whereas 70.00% disagreed that and the rest 4.44% were undecided, 6.67% of the respondents agreed that their life style was improved as an outcome of fishery industry, whereas 68.89% disagreed that and the rest 24.44% were

undecided, and lastly, 4.44% of the respondents agreed that their social status was increased as an outcome of fishery industry, whereas 73.33% disagreed that and the rest 22.22% were undecided.

4 Conclusion:

Regarding socio-economic conditions of the fishermen community of the fringe area of the *beel*, the outcome of a survey conducted among 30 families each in 3 villages, viz. Baluchuri, Dargakona and Mithapani is presented. A total of 21 attributing parameters were considered and a detailed questionnaire was prepared from which the survey was conducted and the results are presented in the form of tables. Besides questionnaire, different other methods were applied for data collection which include Participant Observations and Focus Group Discussions (FGD).

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