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Current Situation of Marine Fisher-folk in Central Kerala

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1. INTRODUCTION

Fishery is an important sector in most of developed and developing countries the world from the standpoint of income and employment generation. Fishery is the oldest and most important livelihood option for the population of the coastal line of the country, in India, many good and rare varieties of fish are found.

The fisheries sector is a vital component in Kerala's economy. It is an important source of food and protein and a major avenue for employment which has also become a major export industry in recent years. Marine fish production in Kerala has shown a decline in 2016-17 and 2017-18 and then increased in 2018-19 with a total production of 8.017 lakh tonnes where marine production is 6.097 lakh tonnes and inland production is 1.92 lakh tonnes where the highest producer is Kollam district with 3.1 lakh tonnes followed by 96 thousand tonnes in Alappuzha and 89 thousand in Ernakulam. In Kerala, the total fishing population is estimated around 10.4 lakhs where the major districts are Trivandrum, Ernakulam and Alappuzha. Fishing labourers, who share one third of the total revenue of the catch, suffered heavily with substantial wage losses due to decrease in catch over the years and many were not willing to make a temporary shift from their traditional employment even during the lean period. Livelihood outcomes and fish abundance may also affect the vessel investment, as people regularly evaluate whether it is sensible to harvest fish-both in terms of the fleet size required to obtain the necessary catch and whether selling this catch will meet financial needs. Maritime states along the west and east coast of India are implementing closed season for mechanized vessels as a corollary to their marine fishing regulation. During the ban period, the mechanised fishing boats, trawlers, including traditional boats are banned from carrying out fishing activities in the waters. The ban on bottom-trawling, imposed between June and August, contribute to an increase in income for the traditional fishermen.

The district of Ernakulam, being the commercial capital of the state of Kerala, is a major financial and commercial hub of the state. The city of Ernakulam, popularly known as Kochi or Cochin, abodes around 2.1 million metropolitan population and hence have a significantly spiralling demand for fish. The district has a total coastline of 48 km, 20 landing centres, and 192 fish markets (24 wholesale markets and 134 retail markets). The fish demand and supply of Kerala, including Ernakulam is met by huge quantities of fish arriving at Ernakulam from Tamil Nadu, Karnataka, Andhra Pradesh and even from the fish landing centres further north.

Fishing has been one of the chief occupations and the source of livelihood to the population living in the coastal areas of Kerala. Fishing is one of the important economic activities of the state, next only to mining and tourism. The fishing industry has made some progress in recent years. Marine and fresh water fisheries contribute significantly to the state's economy. Kerala has a reasonable scope for fisheries production mainly from marine capture, brackish water and inland culture resources. Almost 10 per cent population is directly or indirectly involved in fishing activities carried across the state.

2. REVIEW OF LITERATURE

The socio-economic conditions of fishermen community in Thoothukkudi district have been focussed on their study. The study is made by dividing the respondents on the basis of demographic variables and analysis is made with respect to regression analysis. The study concluded by describing that population engaging in fish culture and fishery activities are poor and thus are unable to adopt scientific technology to produce fish at scientific level (Rajaduraj and Manickavasagam, 2020). On basic aspects of socio-economic conditions like personal, communicational and situational characteristics, they found out that despite the full engagement in fishery-related activities, the fisherwomen families were unable to fulfil their basic needs and suggested that NGOs must consider providing a helping hand (Bhargavi et al., 2020).

3. OBJECTIVE

- To study the socio-economic profile of the marine fisher folk communities with special reference to Cochin harbour.
- To probe out and analyse the constraints faced by the coastal fisher folk communities in the study area.

4.METHODOLOGY

A preliminary survey was undertaken with pre tested interview schedule. The selected respondents were contacted in person and enquired the information required for the study. To instil confidence and to ensure their cooperation in getting the information, the purpose of the study was explained to the respondents and also assured the secrecy of the provided information.

The field investigation was carried out during January 2022. In addition to collecting information regarding the socio-economic condition of the fisherfolk age, educational status, family type, occupation involved in, the survey also focussed on the constraints faced by the fisherfolk while engaging in fishing activities.

In Ernakulam district one fishing harbour was selected on the basis of the fisherfolk population and diversified occupations adopted by the fishing population using simple random sampling method. All the respondents, who were involved in fishing-based activities were selected by this method. In total 60 respondents were interviewed.

RESULT AND DISCUSSION

Table 5.1: Socio – Economic Background of Marine Fisherfolk in Cochin Harbour

Sl. No.	Variables	Category	Respondents N = 60	
			Frequency	Percentage
1	Sex	Male	52	86.7
		Female	8	13.3
2	Age Group	15-25 yrs	1	1.7
		26-40 yrs	16	26.7
		41-55 yrs	25	41.7
		Above 55	18	30
3	Nature of Family	Join	46	76.7
		Nuclear	14	23.3
4	Ownership of House	Owned house	44	73.3
		Rental house	16	26.7
5	Education Level	Illiterate	1	1.7
		Primary Education	27	45
		High School	14	23.3
		Higher Secondary School	11	18.3
		Graduate	5	8.3
		Post graduate	2	3.3
6	Occupation	Fishermen	19	31.7
		Vendor	35	58.3
		Auctioneer	6	10
7	Type of House	Hut	7	11.7
		Concrete	26	43.3
		Tiled	27	45
8	Fish Consumption Pattern	Everyday	47	78.3
		Once a week	6	10
		Once two weeks	2	3.3
		Once a month	1	1.7
		No consumption	4	6.7
9	Experience in Agriculture	1-15 yrs	27	45
		16-30 yrs	12	20
		31-40 yrs	9	15
		More than 40 yrs	12	20

Source:Primary Data

Table 5.1 shows that 86.7 per cent of the total respondents are male and 41.7 per cent of the respondents are from the age group 41-55 years. 76.6 per cent of the respondents are from joint family structure and 73.3 per cent have their own house with 45 per cent having tiled house. The fisherfolk has been classified into three categories, fishermen, vendors and auctioneers, of which vendors are in majority. The fish consumption of the fisherfolk is significantly major on daily consumption. 45 per cent of the selected respondents have experience in the field of fishing less than 15 years.

Fig 5.1: Educational Status of Respondents

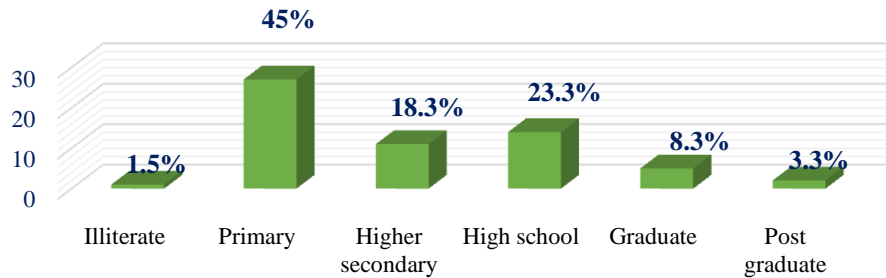


Fig. 5.1 shows the graphical representation of the educational status of the respondents. 45 per cent of the respondents have acquired primary education and 8.3 per cent and 3.3 per cent have graduation and post-graduation degrees respectively. Only 1.5 per cent of the total respondents are illiterate.

Table 5.2: Educational Status vs Choice of Occupation

Educational Status	Choice of Occupation					Total
	Hereditary	Lack of Alternative Employment	Due to Interest	Profitability	Marketability	
Illiterate	0 (0.0) [0.0]	0 (0.0) [0.0]	1 (100.0) [25.0]	0 (0.0) [0.0]	0 (0.0) [0.0]	1 (100.0) [1.7]
Primary	15 (55.6) [51.7]	11 (40.7) [55.0]	1 (3.7) [25.0]	0 (0.0) [0.0]	0 (0.0) [0.0]	27 (100.0) [45.0]
Higher Secondary	5 (45.5) [17.2]	6 (54.5) [30.0]	0 (0.0) [0.0]	0 (0.0) [0.0]	0 (0.0) [0.0]	11 (100.0) [18.3]
High School	7 (50.0) [24.1]	1 (7.1) [5.0]	2 (14.3) [50.0]	3 (21.4) [50.0]	1 (7.1) [100.0]	14 (100.0) [23.3]
Graduate	0 (0.0) [0.0]	2 (40.0) [10.0]	0 (0.0) [0.0]	3 (60.0) [50.0]	0 (0.0) [0.0]	5 (100.0) [8.3]
Post Graduate	2 (100.0) [6.9]	0 (0.0) [0.0]	0 (0.0) [0.0]	0 (0.0) [0.0]	0 (0.0) [0.0]	2 (100.0) [3.3]
Total	29 (48.3) [100.0]	20 (33.3) [100.0]	4 (6.7) [100.0]	6 (10.0) [100.0]	1 (1.7) [100.0]	60 (100.0) [100.0]

Source: Primary Data

() parenthesis denotes row wise percentage

[] parenthesis denotes column wise percentage

The relationship between the choice of occupation of the respondents and their educational qualification is analysed in the Table 5.2. 29 out of the total 60 respondents have chosen the occupation as a hereditary employment and 51.7 per cent of these respondents only have primary education. Only 6 respondents have chosen the occupation on the basis of the profitability of the employment and of these 6, 3 have high school education and remaining 3 are graduates showing that the scope of the field is viewed by the educated class of respondents unlike the respondents with primary education.

Table 5.3: Sex of the Respondent vs Income of the Respondent

Sex of the Respondents	Income of the Respondents			Total
	Low Income (Less than 72000)	Middle Income (72001-252000)	High Income (More than 252000)	
Male	16 (30.8) [100.0]	21 (40.4) [72.4]	15 (28.8) [100.0]	52 (100.0) [86.7]
Female	0 (0.0) [0.0]	8 (100.0) [27.6]	0 (0.0) [0.0]	8 (100.0) [13.3]
Total	16 (26.7) [100.0]	29 (48.3) [100.0]	15 (25.0) [100.0]	60 (100.0) [100.0]

Source: Primary Data

() parenthesis denotes row wise percentage

[] parenthesis denotes column wise percentage

Table 5.3 shows the relationship between the Sex of the respondents and their personal income. Among the two selected genders, male is in majority (86.7 per cent) and within male, 40.4 per cent earn an income between 72001 and 252000. Whole of the female respondents are earning middle income because of the lack of female population in the occupation in fishing activities and auctioneering and also due to the income disparity among the vendors.

Table 5.4: Occupation of the Respondents vs Income of the Respondent

Occupation of Respondent	Income of the Respondent			Total
	Less than 72000	72001-252000	More than 252000	
Fishermen	16 (84.2) [100.0]	3 (15.8) [10.3]	0 (0.0) [0.0]	19 (100.0) [31.7]
Vendors	0 (0.0) [0.0]	23 (65.7) [79.3]	12 (34.3) [80.0]	35 (100.0) [58.3]
Auctioneers	0 (0.0) [0.0]	3 (50.0) [10.3]	3 (50.0) [20.0]	6 (100.0) [10.0]
Total	16 (26.7) [100.0]	29 (48.3) [100.0]	15 (25.0) [100.0]	60 (100.0) [100.0]

Source: Primary Data

() parenthesis denotes row wise percentage

[] parenthesis denotes column wise percentage

Table 5.4 shows the relationship between the personal income of the respondents and the occupation of the respondents. 48.3 per cent of the total respondents earn an income between 72001 and 252000, of which 79.3 per cent are fish vendors. All of the auctioneers earn an income above 72000 which is due to their work nature and behaviour.

Table 5.5: Occupation of Respondents vs Age of the Respondents

Occupation of respondents	Age of respondents				Total
	15-25 yrs	26-40 yrs	41-55 yrs	Above 55	
Fisherman	0	1	6	12	19
	(0.0)	(5.3)	(31.6)	(63.2)	(100.0)
	[0.0]	[6.2]	[24.0]	[66.7]	[31.7]
Vendor	1	19	15	6	35
	(2.9)	(37.1)	(42.9)	(17.1)	(100.0)
	[100.0]	[81.2]	[60.0]	[33.3]	[58.3]
Auctioneer	0	2	4	0	4
	(0.0)	(33.3)	(66.7)	(0.0)	(100.0)
	[0.0]	[12.5]	[16.0]	[0.0]	[10.0]
Total	1	16	25	18	60
	(1.7)	(26.7)	(41.7)	(30.0)	(100.0)
	[100.0]	[100.0]	[100.0]	[100.0]	[100.0]

Source: Primary Data

() parenthesis denotes row wise percentage

[] parenthesis denotes column wise percentage

The occupation of the respondents and the age of the respondents are classified and analysed their relation in Table 5.5. 35 out of the total 60 respondents are fish vendors and these fish vendors are mostly from the age groups of 26-40 years and 41-55 years. Most of the fishermen (63.2 per cent) are aged above 55 years this is due to the expertise required in the field of fishing.

Table 5.6: Occupation of the respondent vs Fish Consumption Pattern

Occupation of Respondent	Fish Consumption Pattern					Total
	Everyday	Once a Week	Once Two Weeks	Once a Month	No Consumption	
Fishermen	19	0	0	0	0	19
	(100.0)	(0.0)	(0.0)	(0.0)	(0.0)	(100.0)
	[40.4]	[0.0]	[0.0]	[0.0]	[0.0]	[31.7]
Vendors	23	6	1	1	4	35
	(65.7)	(17.1)	(2.9)	(2.9)	(11.4)	(100.0)
	[48.9]	[100.0]	[50.0]	[100.0]	[100.0]	[58.3]
Auctioneers	5	0	1	0	0	6
	(83.3)	(0.0)	(16.7)	(0.0)	(0.0)	(100.0)
	[10.6]	[0.0]	[50.0]	[0.0]	[0.0]	[10.0]
Total	47	6	2	1	4	60
	(78.3)	(10.0)	(3.3)	(1.7)	(6.7)	(100.0)
	[100.0]	[100.0]	[100.0]	[100.0]	[100.0]	[100.0]

Source: Primary Data

() parenthesis denotes row wise percentage

[] parenthesis denotes column wise percentage

Table 5.6 discusses the relationship between the fish consumption pattern of the respondents and their occupation. Majority of the respondents, 47 out of the 60, consume fish on a daily basis and out of this 47, 23 respondents are vendors, 19 are fishermen and remaining are auctioneers. Only 4 respondents of the total have no consumption of fish and these are also fish vendors since this is the only occupation where the respondents do not get to take the fish for free of cost.

Table 5.7: Problems faced by the fisherfolk of Cochin harbour

Sl.No.	Factors		I 78	II 65	III 57	IV 50	V 42	VI 34	VII 21	Total Score	Mean Value	Rank
1	Failure in marketing	F	4	3	3	1	5	17	27	60		
		FX	312	195	171	50	210	578	567	2083	34.71	VII
2	Repayment of loan	F	29	6	8	5	3	4	5	60		
		FX	2262	390	456	250	126	136	105	3725	62.08	II
3	Lack of training and technological awareness	F	3	1	2	6	13	16	19	60		
		FX	234	65	114	300	546	544	399	2211	36.7	VI
4	Waste disposal	F	7	5	3	18	17	5	5	60		
		FX	546	325	171	900	714	170	105	2931	48.85	IV
5	Transportation problems	F	0	6	4	11	21	14	4	60		
		FX	0	390	228	550	882	476	84	2610	43.5	V
6	Price flexibility	F	11	22	19	7	0	1	0	60		
		FX	858	1430	1083	350	0	34	0	3755	62.58	I
7	Natural calamities	F	6	17	21	12	1	3	0	60		
		FX	468	1105	1197	600	42	102	0	3514	58.56	III

Source: Primary data

Note: X- Scale, F- Number of sample respondents, FX- Score.

The problems faced by the fisher folk in Cochin harbour are listed and ranked in the Table 5.7. Among the various constraints, the problem of price flexibility stood first with the mean value of 62.58 which was followed by the second problem of repayment of loan with an average of 62.08 of the fisherfolk in the study area. According to the Garret ranking analysis, failure in marketing has been ranked seventh with a least mean value of 34.71.

CONCLUSION

The study concludes that out of the three categorizations of the fisherfolk, fishermen, fish vendors and auctioneers, most of the respondents have chosen the occupation due to lack of alternative employment and as a hereditary employment. High income earning fisherfolk are limited to fish vendors and auctioneers, whereas none of the fishermen have income above Rs. 2.52 lakhs. The study also derives that the major constraint faced by the fisherfolk during the fishing activities are price flexibility in the market and the difficulty in repayment of loan. Further policies by the Marine Fisheries to improve the living condition and ensuring basic payment to the fishermen community could lessen the disparity and improve the conditions of their livelihood.

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