

Chapter 5

Financial Status

Introduction

The previously concluded chapter on '*Financial inclusion among fisher households*' gives an overview of the significance of fisheries sector at International, National and Regional levels. It's importance has been assessed in terms of volume of production, employment generation, volume of export and per capita consumption of fish. It also portrays the institutional mechanism currently available for the promotion and development of fisher households and the extent of financial requirements of this sector. A brief analysis shows that the financial support offered by the specialised institutions like Matsyafed and Matsyaboard are inadequate. Fisher households are left with no other option to depend on moneylenders, microfinance institutions and private financiers. In order to proceed with an in-depth analysis of the extent of financial inclusion it is important to assess the socio-economic background of the fisher households under study. The specific objective of this chapter is *to examine the socio-economic factor influencing financial status of fisher households*. The null hypothesis formulated for the study is that *there is no significant difference in the annual mean income of fisher households by Types of Craft with various economic factors*.

Financial status of fisher households refers to the financial capability of the fisher households to demand financial services and products, especially credit products from commercial banks as a general customer. The financial status of fisher households can be assessed with the annual income, alternate source of income, a government employee with regular income and the size of the landholding have crucial bearing in availing the financial products and services from a commercial bank. Hence, the researcher intends to know in advance the financial status of fisher households, before proceeding with the analysis on the financial inclusiveness of marine fisher households. For this

purpose four social variables and nine economic variables have been identified to assess the influence of these factors on the annual mean income. The analysis is presented by 'Types of Craft' used by fishermen for fishing activities. The *economic factors* analysed for the attainment of this objective are:

- Government Employees in Families
- Have Alternate Source of Income
- Have Savings in any Institution
- Income Category
- Number of Years of Experience in the Field
- Per Head Bank Account
- Size of Landholding
- Types of Banks in which Heads of the Household Hold the Bank Account
- Year of Opening Bank Account

The *Social factors* used for the analysis are:

- Age of Head of the Household
- Education of the Head of the Household
- Head of Households' Fathers' Occupation
- Number of Family Members

5.1 Economic Sketch of Fisher Households

Economic status of a household can be reflected in all spheres. When households are weak in economic conditions, they struggle to meet life-cycle expenses. They cannot afford to keep a surplus fund for the better education of the children, medical expenses and tend to live away from the mainstream of the society. Economic condition of a fisher household mainly related to ownership of fishing vessels, number of government employees in a households, alternate income of the family members, savings of the family, income category, the number of years of experience as fishermen, per head bank account ownership of households, average size of the landholding and the

types of bank through which head of the household was linked to a formal banking system. The result of the analysis is presented under two bases, 'Types of Craft' and under the 'Year in which fisher households have opened bank account before 2010 and After 2010'. The year '2010' has been chosen as the base year keeping in mind the first '*Financial Inclusion Plan 2010-2013*', declared by RBI, the apex bank of India. Fisher households' economic status has been presented in Table 5.1.

Table 5.1
Distribution of Economic Characteristics of Head of the Households
by Types of Craft and by Year of Opening Bank Account

Economic Variables		Types of Craft						Year of Opening Bank A/c by Head of the Household			
		Mechanised (N=78)		Motorised (N=78)		Non-Motorised (N=78)		Before 2010 (N=70)		After 2010 (N=130)	
		n	%	n	%	n	%	n	%	n	%
Government Employees in Family	No	43	97.73	76	97.44	77	98.72	67	95.71	129	99.23
	Yes	1	2.27	2	2.56	1	1.28	3	4.29	1	0.77
Have Alternate Source of Income	No	19	43.18	25	32.05	16	20.51	23	32.86	37	28.46
	Yes	25	56.82	53	67.95	62	79.49	47	67.14	93	71.54
Have Savings in any Institution	No	5	11.36	19	24.36	17	21.79	15	21.43	26	20
	Yes	39	88.64	59	75.64	61	78.21	55	78.57	104	80
Income Category	BPL	22	50	49	62.82	54	69.23	34	48.57	91	70
	APL	22	50	29	37.18	24	30.77	36	51.43	39	30
No. of Years in Fishing	<15 years	7	15.91	15	19.23	21	26.92	18	25.71	25	19.23
	15 - 24 years	20	45.45	37	47.44	35	44.87	25	35.71	67	51.54
	25+ years	17	38.64	26	33.33	22	28.21	27	38.57	38	29.23

Economic Variables		Types of Craft						Year of Opening Bank A/c by Head of the Household			
		Mechanised (N=78)		Motorised (N=78)		Non- Motorised (N=78)		Before 2010 (N=70)		After 2010 (N=130)	
		n	%	n	%	n	%	n	%	n	%
Per Head Bank Account	Up to 75 percent	3	6.82	22	28.21	24	30.77	22	31.43	27	20.77
	Above 75 percent	41	93.18	56	71.79	54	69.23	48	68.57	103	79.23
Size of the Land Holding	<=3	7	15.91	10	12.82	20	25.64	10	14.29	27	20.77
	3.1 to 6	11	25	33	42.31	36	46.15	23	32.86	57	43.85
	6.1 to 10	14	31.82	17	21.79	14	17.95	16	22.86	29	22.31
	10+	12	27.27	18	23.08	8	10.26	21	30	17	13.08
Types of Bank(HH)	SBI and its Associates	23	52.27	43	55.13	42	53.85	29	41.43	79	60.77
	Nationalised Bank	7	15.91	19	24.36	14	17.95	20	28.57	20	15.38
	Private Sector Bank	14	31.82	16	20.51	22	28.21	21	30	31	23.85
Year of Opening Bank Account	Before 2010	20	45.5	25	32.1	25	32.1	70	-		-
	After 2010	24	55.5	53	67.9	53	67.9	-	-	130	-

Source: Field Survey

5.1.1 Government Employees in the Family

Govt. employees in a family ensure a secure and regular income of the fisher house, where income of the head of the household is irregular, seasonal and uncertain. Government employees among the fisheries households under Mechanised, Motorised and Non- Motorised sectors are less than three per cent. The analysis based on Year of Opening the Bank Account, under Before 2010 category there are 4.29 per cent Government employees and After 2010 category not even one per cent of the total.

Salary Certificate is accepted as a collateral security by the commercial banks for availing loan. It can be clearly inferred that around two per cent of the fisheries households alone have an opportunity to offer salary certificate as collateral to the financial institution when applying for a loan.

5.1.2 Alternate Source of Income

An alternate source of income is crucial to the fisher households whose income is irregular and seasonal in nature. It is also a key determinant factor in availing a financial assistance from any financial institutions whose repayment system demands a regular and steady source of income. A close examination on the alternate source of income of the families varies from sector to sector. It is observed that 56.82 per cent of the households in Mechanised sector, 67.95 per cent in Motorised sector and 79.49 per cent in Non-Motorised sector have alternate sources of income. The reason for the highest per cent of households under Non-Motorised sector with alternate source of income is that this sector is dominated by BPL category households. Women belonging to the BPL category go for work under MGREGS other than the ordinary work available to all. Generally, women of the locality work as home nurses, sales girls or engage in fish processing activities. A brief analysis based on the Year of Opening Bank Account, revealed that more than two-third of the fisher households under both categories have alternate source of income.

Majority of the fisher households have alternate sources of income. Alternate source of income of fisher households depends upon the home maker of the house. Fishermen in general do not engage in any of the fishing activities. Fisher households during monsoon season and other lean periods live on the alternate source of income of the home makers.

5.1.3 Savings among Fisher Households

Saving habit of the fisher households analysed by Types of Craft showed that more than 75 per cent of the fisher households under Mechanised sector, Motorised sector and Non-Motorised sector have savings in any of the institutions like banks, post offices, credit societies and local chit funds. Out of the three categories, highest per cent (88.64 per cent) fisher households having savings are traced under Mechanised sector followed by Non- Motorised sector with 78.21per cent. From the analysis made by Year of Opening Bank Account, it was revealed that 80 per cent of the fisher households under After 2010 category have savings in any of these financial institutions and about 78 per cent of them have savings under Before 2010 category.

The current result compared to the earlier reports and studies, saving habit of the fisher households have enhanced but the quantum of savings and frequency of saving is a matter to be looked into due to the irregular income and low-income from fishing.

5.1.4 Income Category

Income category recorded in the Ration card is taken as the economic status of the households. Family income is used to measure the standard of living of the households, moreover in availing formal banking services and other schemes implemented by the Government. As per the Human Development Report of Fisher Folk in Kerala-2009, it was reported that more than three fourth of the fisheries households were under Below Poverty Line. But now, analysis based on Types of Craft, Mechanised sector has an equal per cent of BPL category fisher households (50 per cent) and APL category fisher

households (50 per cent). But in Motorised (62.82 per cent) and Non-Motorised sectors (69.23 per cent) majority of the fisher households belong to BPL category revealing the financial vulnerability of the households. Year of Opening Bank Account-wise analysis, 51.43 per cent of fisher households in Before 2010 category belonged to APL and 48.57 per cent belonged to BPL. But if we look at the After 2010 category, 70 per cent of the total are grouped into BPL category and only 30 per cent are in the APL category.

It can be inferred that more than *two third* of the fishermen still belong to BPL category, which indicates the financial backwardness of the fishing community. A simple comparison of fisher households in Alappuzha with that of the estimates published by Planning Commission of India the percentage of persons Below the Poverty Line in 2011-12 has been estimated as 25.7 per cent in rural areas, 13.7 per cent in urban areas and 21.9 per cent for the country as a whole. The percentage of BPL population in Kerala was 4.97 per cent in rural areas and 8.46 per cent in urban areas.

5.1.5 Number of Years as Active Fishermen

Number of years of experience of the head of the households has been classified into three categories like <15 years, 15 to 24 years and 25+ years. Table 5.1 shows the years of experience of Head of the Household by Types of craft and by Year of opening a Bank account. It can be seen that the greatest percentage of fishermen have 15-24 years of experience in all three sectors, followed by those with more than 25 years. The lowest percentage of fishermen in all types of vessels falls into less than 15 years of experience group. However, in Non- Motorised sector, the fishermen under <15 years of experience are more in comparison to Mechanised and Motorised sectors; similarly, the percentage of 25+ years of experience are less compared to other two sectors.

With regard to the Year of Opening Bank Account, it is observed that 51.54 per cent fishermen under After 2010 category have 15-24 years of experience, which is the maximum, followed by 25 + years category. Less than

15 years of experience category fishermen are least in Before 2010 (25.71 per cent) and After 2010 (19.23 per cent) categories, as in the case of Mechanised, Motorised and Non-Motorised sectors. The analysis reveals that young members show reluctance to enter into this field of occupation in Alappuzha. In the case of Before 2010 category, fishermen with 25+ years experience are highest and less than 15 category is least.

A little less than 20 of the fishermen are with less years of experience in fishing and others are with more than fifteen years. Motorised sector fishermen have more years of experience.

5.1.6 Per Head Bank Account

One of the bench marks followed even at global level to assess financial inclusion among the people is the number of ownership accounts among the population. Ownership of a bank account is considered to be the first step to connect the unbanked to the formal banking institutions. Analysis on per head bank account by Types of Craft revealed that majority of the households in all three sectors have per head bank account Above 75 per cent, which means more than 75 per cent of the family members have bank accounts. Out of the three sectors, highest per cent (93.18 per cent) of per head bank accounts was found among the households under Mechanised sector. An analysis of Per Head Bank Account on the basis of Year of Opening Bank Account, revealed that majority of the households in Before 2010 and After 2010 categories are included in the Above 75 per cent classification. After 2010 category households have higher per cent of Above 75 per cent per head bank accounts compared to Before 2010 category.

The analysis revealed that financial inclusion initiatives like routing the relief scheme and educational grant of students are implemented by Department of Fisheries to help the fisher households to have ownership of the accounts. It can be inferred that 75 per cent of the members of fisher households are linked to formal banking institutions.

5.1.7 Size of the Landholding

One of the determinants of the financial soundness of a household is the size of the landholding. As per the rules followed by the formal financial institutions, minimum landholding required for a loan is three cents of land and the minimum landholding to avail a housing scheme implemented by the Government is two cents of land. Table 5.1 reveals that 18.50 per cent of the sample fisher households have landholding less than or equal to three cents of land, which make them ineligible for a loan from any financial institutions. It is also observed from the table that on the basis of the Types of craft, 25.64 per cent fisher households under Non-Motorised sector, 12.82 per cent of the Motorised sector, around 16 per cent of the Mechanised sector own less than or equal to three cents of land. Out of the three sectors, highest per cent of fisher households having less than three or equal to three cents of land fall under Non-Mechanised sector. In Motorised and Non-Motorised sector, 3 to 6 cents category size of landholding is highest but in the Mechanised sector between 6 to 10 cents of landholding is highest. Under the Non-Motorised sector, around 18 per cent fisher households possess between 6 to 10 cents of land and those who own above 10 cents are only 10 per cent. Fisher households under Mechanised sector showed a better position in their landholding compared to other two sectors because 31.81 per cent of fisher household have landholding between 6 to 10 cents and 27.27 per cent have more than 10 cents of land.

The analysis of the landholding on the basis of Year of Opening the Bank Account depicted that in the Before 2010 category, highest per cent (32.86 per cent) of fisher households own 3-6 cents of land, 30 per cent of the households own 10+ cents of land and 22.86 per cent possess 6-10 cents of land. Only 14.29 per cent of them have less than or equal to three cents of land. Landholding of the After 2010 category, 10+ cents of landholding households are least and the per cent of fisher households holding less than or equal to three cents of land is more, compared to Before 2010 category.

Even though 81.5 per cent of fisher households under study hold more than three cents of land, they are either allotted by the Govt. as part of the rehabilitation project after Tsunami or it had been possessed under the landlord-tenant system. Moreover, these land fall within the Coastal Regulation Zone. In CRZ, fishermen are not allowed to build a house and the land documents are not acceptable to the formal financial institutions as collateral security, if at all they accept, the land value would be much less than the market price

5.1.8 Ownership of Bank Accounts with Commercial Banks

Financial inclusion as a national goal can be achieved only through the joint efforts of the Govt, people, public and private financial intermediaries. An analysis on the Types of Bank chosen by the Head of the Household to open account was looked into based on the Types of Craft. It is observed that Head of the households in three sectors have accounts in SBI & its Associates, followed by Private Sector Banks and Nationalised Banks. Disaggregating the Types of Craft, highest per cent head households under Mechanised sector have accounts in private sector banks compared to its counter parts. When analysed on the basis of Year of Opening the Bank Account, heads of the households who opened bank accounts Before 2010 and After 2010, commenced their banking activities with SBI & Associates. Out of the two categories, 60.77 per cent heads of the households under After 2010 category opted to open their accounts with SBI & Associates. A closer evaluation of the After 2010 category revealed that head of the households having accounts in Private Sector Banks are less compared to Before 2010 category.

Over all view of the analysis shows that public sector banks are the preferred financial institutions opted by the fisher households to make their financial transactions. It is partially because public sector banks are prominent in the coastal areas compared to private sector banks.

5.1.9 Year of Opening Bank Account

An analysis on the year in which fisher households have opened bank account shows that only 35 per cent of the fisher households alone had bank account before 2010 and 65 per cent of the households opened the account as part of financial inclusion initiative after 2010. A detailed analysis based on Types of Craft shows that less than half of the (45.5 per cent) of the fisher households under Mechanised sector, 32.00 per cent each of the fisher households under Motorised and Non-Motorised sector had opened accounts with banks. It can be inferred that 65 per cent of the marine fisher households began enjoying the financial products and services in the nature of ‘public good’ only after 2010

The economic analysis of marine fisher households shows a very gloomy picture of fisher households. Government employees in fisher households are just 2.00 per cent, though majority of the households have alternate sources of income, they are irregular and meagre. Land held by fisher households are in Coastal Regulation Zone. It is impossible to treat the fisher households in parity with general customer in providing financial services and products by commercial banks.

5.2 Social Status Sketch of Marine Fisher Households

Social indicators reveal the background of the sample under study which consists of 200 sea-going fishermen’s households. Social features of the fisher households selected for analysis are age groups of head of the households, educational qualification of head of the households, head of the households’ father’s occupation and number of family members. Table 5.2 presents the social characteristics distribution of fisher households by Types of Craft namely Mechanised, Motorised and Non-Motorised sectors and also by year in which head of the household opened a bank account, categorised as Before 2010 and After 2010. Result of the analysis on social factors has been presented below:

Table 5.2

Distribution of Social Characteristics of Head of the Households by Types of Craft and by Year of Opening Bank Account

Social Variables		Types of Craft						Year of opening Bank A/c by Head of the Household			
		Mechanised		Motorised		Non-Motorised		Before 2010		After 2010	
		(N=78)		(N=78)				(N=70)		(N=130)	
		n	%	n	%	n	%	n	%	n	%
Age of Head of the Household	Up to 40	11	25	31	39.74	39	50	22	31.43	59	45.38
	41 to 50	18	40.9	27	34.62	26	33.33	27	38.57	44	33.85
	Above 50	15	34.1	20	25.64	13	16.67	21	30	27	20.77
Education of Head of the Household	LP	6	13.6	14	17.95	23	29.49	11	15.71	32	24.62
	UP	16	36.4	24	30.77	24	30.77	29	41.43	35	26.92
	High School	20	45.5	36	46.15	29	37.18	26	37.14	59	45.38
	Higher Secondary	2	4.55	4	5.13	2	2.56	4	5.71	4	3.08
No. of Family Members	Up to Three	6	13.6	15	19.23	15	19.23	9	12.86	27	20.77
	Four	24	54.6	28	35.9	38	48.72	36	51.43	54	41.54
	Above Four	14	31.8	35	44.87	25	32.05	25	35.71	49	37.69
HH's Father's Occupation	Fishing	43	97.7	75	96.15	75	96.15	69	98.57	124	95.38
	Any other	1	2.27	3	3.85	3	3.85	1	1.43	6	4.62

Source: Field Survey

5.2.1 Age

A brief analysis on age group percentage distribution of the head of the households is undertaken assuming that it influences the banking practices of the households. Table 5.2 clearly depicts that largest proportion of fishermen (41 per cent) in Mechanised sector, falls in the second category age group of 41 to 50 years; the second largest category (34 per cent) of them belonged to the age group of Above 50 and only 25 per cent of them falls into the age group of up to 40. Considering the Motorised and Non-Motorised sectors, the first category age group of fishermen is more, compared to other two categories of age groups. Another point to be highlighted is that highest per cent of first category age group are concentrated in Non-Motorised sector and least in Mechanised sector. At the same time the third category age group above 50 years is least in Non-Motorised sector and is maximum in Mechanised sector.

With respect to Year of opening bank account, the second category age group is dominant in the Before 2010 category and the first and third categories of age groups have been ranked second and third respectively. Where as in the After 2010 category, the first age group up to 40 is prominent having 38.57 per cent and the third category age group is least with 20.77 per cent . However, only 20.77 per cent of fishermen Above 50 years category have been found among the After 2010 category.

It is surprising to note that majority of the fishermen in the sample belong to the below 40 category, indicating younger generation entering into this risky occupation.

5.2.2 Educational Status of the Head of the Household

Education of the head of the households has a significant bearing on the financial planning, budgeting, and financial management, financial decisions of a household as it is the sub set of an economy. *Table 5.2* presents educational level of the head of the households by Types of Craft and Year of Opening a Bank Account. On the first basis, around 45.00 per cent of the head

of the households in Mechanised sector, 46.15 per cent of the head of the households in Motorised sector and 37.18 per cent of the head of the households under Non-Motorised sector have high school level of education. Similarly, 36.36 per cent of the fishermen in Mechanised sector, 30.77 per cent of the fishermen in Motorised sector and equal per cent of the fishermen in Non-Motorised sector have Upper Primary education. It is about 13.64 per cent of the head of the households in the Mechanised sector, 17.95 per cent in the Motorised sector and 29.49 per cent in the Non-Motorised sector having lower Primary Level education. Fishermen with lower primary level of education are relatively higher in Non-Mechanised sector compared to counterparts. Highest per cent of heads of the household with High School Level education is observed in Motorised sector (46.15), lesser per cent is in Mechanised sector (45.45) and least per cent is in the Non-Motorised sector (37.18). However, over all education level of the fishermen in Alappuzha has escalated tremendously compared to the Human Development Report 2009.

Educational Status by Year of Opening Bank Account revealed that there are 45.38 per cent of fishermen with high school education in After 2010 category, while Before 2010 category has only 37.14 per cent. But the Before 2010 category, Upper Primary Level educational group is prominent with 41.43 per cent and followed by High School Level educational group. Out of the fishermen who opened Bank account Before 2010, 5.71 per cent have achieved Higher Secondary Level of education as against the After 2010 group with just above three per cent.

As per the report fishermen with Higher Secondary Level education were absolutely nil in Alappuzha but now it has risen to four per cent. Fishermen with high school education have increased to 42.5 per cent as against 16.7 per cent in 2009. And the per cent of head of the households with Primary Level education has declined to 53.5 per cent from 80 per cent.

5.2.3 Number of Family Members

Per capita income of a household depends on the members' earnings and the number of family members. The average size of households of Kerala is 4.2 persons based on 2011 census as against 4.7 persons in 2001. The analysis on the family size among the fisher households by Types of Craft revealed that highest per cent of households from Mechanised sector (54.55 per cent) and 48.72 per cent in Non-Motorised sector households have average family size of four while Motorised sector has highest per cent of Above four category. And 31.82 per cent of the households in Mechanised sector and 32.05 per cent household in Non- Motorised sector have family size Above four. Highlights of the study pointed out those households with upto three family members have scored least percentage in all three sectors. A close look at the number of family members by Year of Opening Bank Account shows that four-member households are dominating over other two classifications but Before 2010 category has higher per cent of four-member households. The third classification of family size, i.e. above four-member size households are 37 per cent under After 2010 category, which is par with the 2011 census figure of the total population in Kerala.

5.2.4 Occupational Background

From Table 5.2 Occupational profile of fathers of the head of the households helps to understand the number of fisher households belonging to the traditional fishermen family and the new entrance to this sector. Analysis based on Types of Craft showed that more than 96.00 per cent of the fishermen's fathers in all three sectors were engaged in fishing. A meagre per cent (2.27 per cent) under Mechanised sector and 3.85 per cent each under Motorised and Non-Motorised sectors of fishermen's fathers had some other occupation other than fishing such as tailoring, daily wage earners and baking etc. In the perception of Year of Opening the Bank Account also shows that a whopping majority of 98.57 per cent in the Before 2010 category and 95.38 per cent in After 2010 category fishermen's fathers' occupational status were

fishing and only less than five per cent of the fishermen's fathers were engaged in other occupations other than fishing.

This result shows conformity with the empirical findings of the Socio-Techno Economic Survey-2004 conducted by Department of Fisheries, Kerala; Census evidences presented by the CMFRI, Cochin in 2005 and the Human Development Report-2009 prepared by Kerala State Planning Board, that more than 90 per cent of fishermen come from fisheries background and around 5 per cent alone are from occupation other than fishing. Another important factor to be taken note is that even after higher secondary education, there are youngsters entering in fishing activities.

5.3 Influence of Economic Factors on Annual Average Income

Financial capability of a fisher household would mean provision for peaceful living and the capacity to withstand the unexpected adversities of life. An attempt was made to assess the influence of economic factors in particular alternate source of income, size of the landholding, year of opening a bank account and salary income of Government servant in a family on annual mean income of a fisher household. The researcher conducted a Two-Way ANOVA to determine the variation in the mean income of fisher households by various economic factors that influence the average annual income of the fisher households and the Types of Craft. Table 5.3 indicates how various socio-economic variables affect average annual income of the fisher households by the Types of Craft.

Table 5.3

Mean Annual Income of Fisher Households and the Economic Variables

Economic Variables		Amounts in ₹				Types of Craft		Characteristics		Interaction	
		Mechanised	Motorised	Non-Motorised	Total	F	Sig.	F	Sig.	F	Sig.
Government Employees in Families	No	47175	22754	26468	29571	6.937	0.001	0.332	0.565	0.745	0.476
	Yes	183000	167080	103780	155235						
	Total	50262	26455	27459	32084						
Have Alternate Source of Income	No	9537	3575	3019	5315	6.082	0.003	8.956	0.003	10.74	0.00
	Yes	81213	37247	33766	43557						
	Total	50262	26455	27459	32084						
Have Savings in any Institution	Have Savings	35024	33557	29320	31979	6.608	0.002	1.718	0.191	1.193	0.305
	Not Having Savings	52216	24168	26941	32111						
	Total	50262	26455	27459	32084						
Income Category	BPL	72610	22709	23830	31976	5.286	0.006	27.727	0.000	3.87	0.022
	APL	27914	32784	35624	32264						
	Total	50262	26455	27459	32084						

Economic Variables		Amounts in ₹				Types of Craft		Characteristics		Interaction	
		Mechanised	Motorised	Non-Motorised	Total	F	Sig.	F	Sig.	F	Sig.
No. of Years as Active Fisherman	<15 years	41086	31954	21757	28461	7.645	0.001	0.482	0.618	2.198	0.071
	15 - 24 years	13991	21595	30870	23471						
	25+ years	96712	30198	27477	46673						
	Total	50262	26455	27459	32084						
Per Head Bank Account	Up to 75 percent	14733	31700	24047	26913	7.644	0.001	0.098	0.755	0.956	0.386
	Above 75 percent	52862	24394	28976	33762						
	Total	50262	26455	27459	32084						
Size of the Landholding	<=3	17935	23086	29581	25622	4.607	0.011	5.666	0.001	1.711	0.12
	3.1 to 6	64009	21240	26277	29387						
	6.1 to 10	61809	22086	23154	34777						
	10+	43047	42013	35010	40865						
	Total	50262	26455	27459	32084						
Type of Bank(HH)	Public Sector Banks	36178	26926	28736	29486	7.314	0.001	1.83	0.178	1.11	0.331
	Private Sector Banks	80443	24629	24208	39478						
	Total	50262	26455	27459	32084						
Year of Opening Bank Account	Before 2010	48255	40760	34072	40513	6.146	0.003	18.626	0.000	4.999	0.008
	After 2010	51934	19707	24340	27546						
	Total	50262	26455	27459	32084						

Source: Field Survey

5.3.1 Families with Alternate Source of Income and its Influence on Average Annual Income

Two-way ANOVA test result shows significant variation in the average annual income of fisher households by Types of Craft as the p -value is observed to be (0.003), which falls within the significant level of 0.05. In the same way, alternate source of income of the households also significantly influence the average annual income of fisher households as the significance value of F -statistics of households with alternate source of income is found to be 0.003, which falls within the significant level of 0.05. And the significance value of the interaction term of F -statistics is 0.120, indicating that average annual income of fisher households vary significantly by Types of craft, with alternate source of income as the significance value is 0.000, which is found to be within the significant level of 0.05.

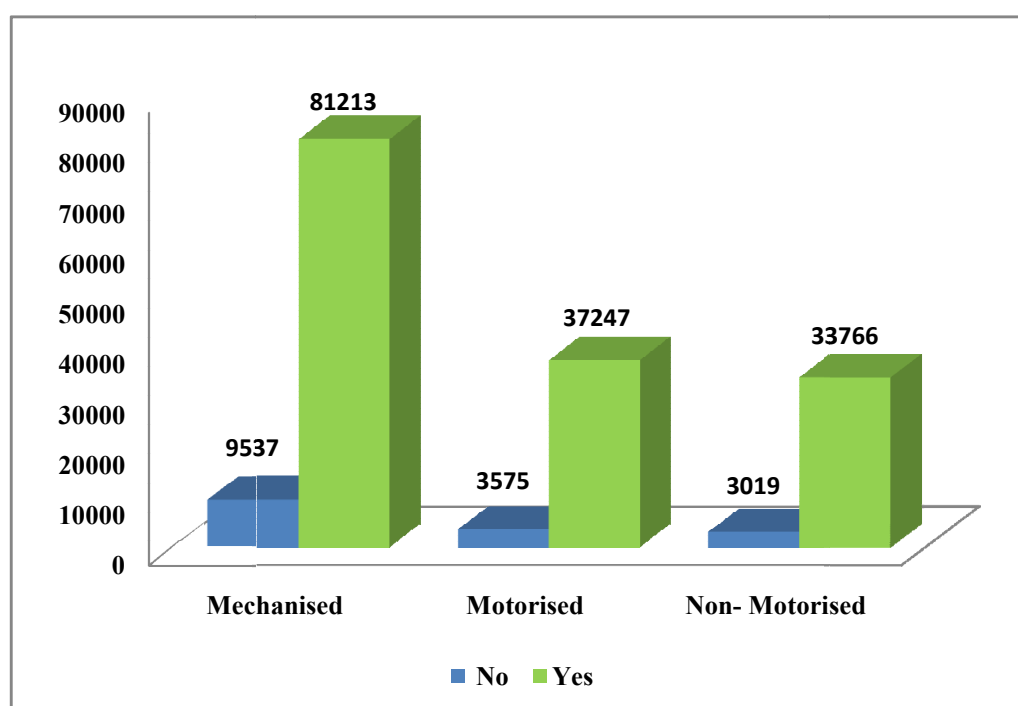


Figure 5.1

Alternate Source of Income on the Average Annual Income of Marine Fisher Households

5.3.2 Year of Opening Bank Account by HH on the Average Annual Income

From the table 5.3 it could be observed that the variation in the average annual income of the fishermen by Types of Craft is seen to be statistically significant as the p -value of the F -statistics of Types of Craft seen to be 0.003, which is less than the significant level of 0.05. Similarly, the variation observed on the income of fishermen by the Year of Opening Bank Account by heads of households is perceived to be highly significant at the 0.05 level, which indicates that year of opening bank account and the average annual income of the fisher households have significant association between them. Likewise, the interaction term that is the effects of Types of Craft and Year of Opening Bank Accounts on mean income of fisher households and the p -value of F -statistics is found to be 0.008, which is less than that of the significant level of 0.05, revealing the variation of average annual income with respect to Types of craft is different in two different periods.

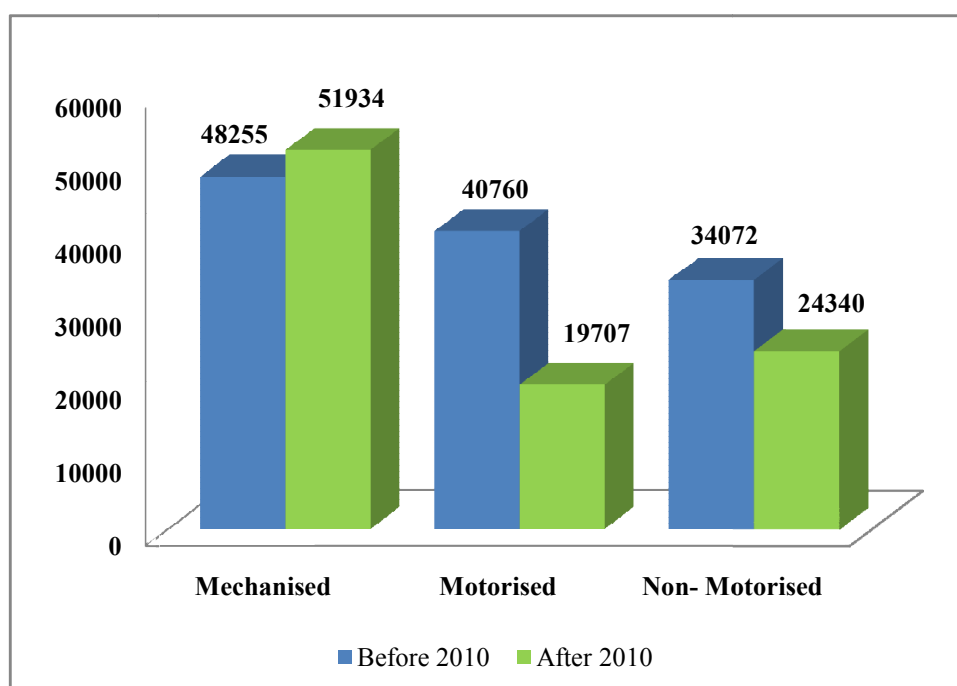


Figure 5.2

Year of Opening Bank Account on Average Annual Income of Marine Fisher Households

5.3.3 Income Categories of Households and Average Annual Income

The test result as per table 5.3 shows that average annual income of fisher households does vary significantly by Types of craft and Types of income categories as BPL and APL. The significance value of F -statistics of Types of craft on average annual income is 0.006, which is significant at the 0.05 level. Average annual income of the fisher households significantly differ based on the Types of income categories like BPL and APL and the p-value is found to be 0.000, which is within the significant level of 0.05, indicating the fact that Types of income category have influence on the average annual income of fisher households. In the same way, the significant value of interaction term of F -statistics resulted to be 0.022, which is less than the significant level of 0.05, showing that the income of the fisher households by Types of Craft significantly vary with different income categories like APL and BPL.

An attempt was made to assess the influence of nine economic factors, especially alternate source of income, presence of Government employees in the households, year of opening account, and landholdings on the average annual income of fisher households by Types of Craft. The Two-Way ANOVA test result revealed that average annual income of fisher households vary significantly with Types of Craft. Size of the landholding has significant influence on annual average income when taken individually. But when the two independent variables are taken together to assess variance on annual average income of fisher households by Types of Craft, it was found that three variables create significant variance in the annual average income. Significant level of interaction terms F -values of these three variables resulted as follows: year of opening bank account by head of the households (0.008), alternate source of income of the households (0.000), and the income categorisation of the households (0.022). These significant values fall within the significant level of 0.05.

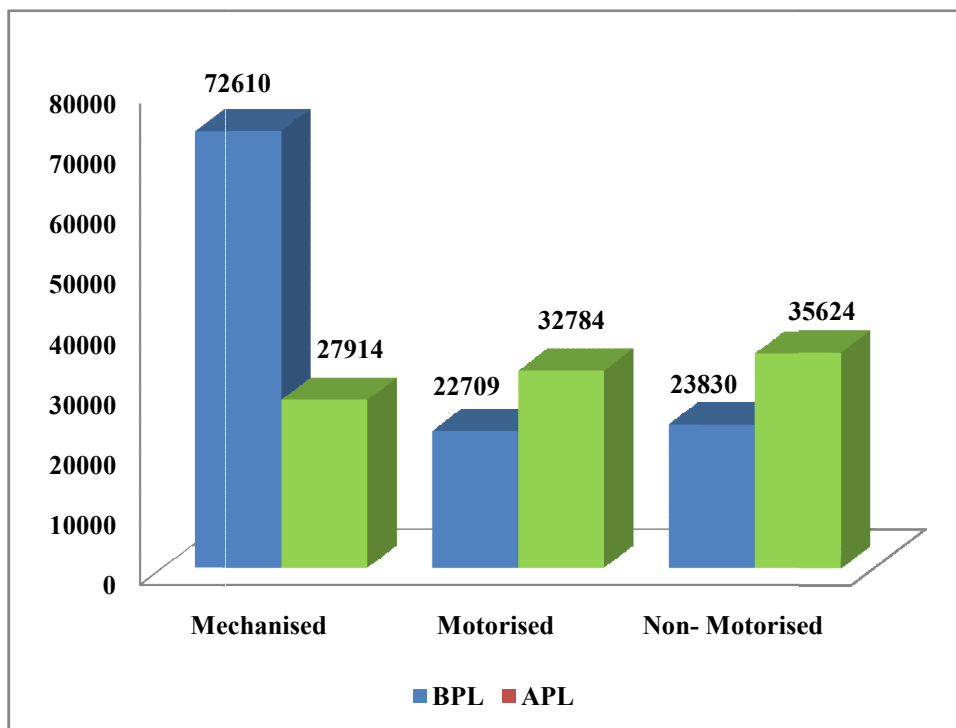


Figure 5.3

Income Category of Marine Fisher Households on their Average Annual Income

5.4 Determinants of Annual Average income

Financial status of customers is considered to be one of the determinants in providing full suite of financial products and services by any of the formal banking institutions. It appears to suggest that variation in the annual income by each and every socio-economic factor and the impact on the annual income when all the independent variables taken together is assessed to identify current position of the financial strength of the fisher households. For this purpose, Multiple Classification Analysis has been undertaken to identify the extent of effect of each and every socio-economic factor individually and in aggregate, on annual income is appended below.

The Multiple Classification Analysis is employed to determine the effect of independent variables namely Types of craft, Age of head of the

household (HH), Number of years of experience as fisherman, Year of opening bank account by head of the household, Types of bank in which Head of the Household has Bank account, Educational level of HH, Number of Family members, families with alternate sources of income, size of the landholding on the average annual income (dependent variable) of the fisher households. The MCA table is used to find out the magnitude and direction of each independent variable on average annual income of fisher households by Types of craft and the interaction between the independent variables. The table consists of mainly four columns, the first two are Unadjusted mean of predicted Annual average income and R (multiple correlation coefficient) and the second two columns are Adjusted predicted Annual average income and R.

Table.5.4
Influence of Socio-Economic Variables on Annual Average Income Fisher Households

		N	Unadjusted	Adjusted		
			Mean	R	Mean	R
Types of Craft				<i>0.174</i>		<i>0.162</i>
	Mechanised	44	50262		48965	
	Motorised	78	26455		26453	
	Non-Motorised	78	27459		28193	
Age of the Head of the Household				0.311		0.194
	Up to 40	81	16399		22097	
	41 to 50	71	30520		31429	
	Above 50	48	60867		49908	
No. of Years as Fisherman				0.185		0.108
	<15 years	43	28461		39547	
	15 - 24 years	92	23471		25685	
	25+ years	65	46673		36204	
Year of Opening Bank A/c(HH)				0.111		0.017
	Before 2010	70	40513		33354	
	After 2010	130	27546		31400	

	N	Unadjusted Mean	R	Adjusted Mean	R
Type of Bank(HH)			0.079		0.025
Public Sector Banks	148	29486		31273	
Private sector Banks	52	39478		34392	
Education of (HH)			0.200		0.110
LP	43	33710		30432	
UP	64	46709		40776	
High school & Above	93	21268		26867	
No. of Family Members			0.046		0.112
Up to Three	36	26773		19013	
Four	90	33811		33728	
Above Four	74	32568		36444	
Alternate Source of Income			0.315		0.309
No	60	5315		5870	
Yes	140	43557		43319	
Size of the Land Holding			0.093		0.143
<=3	37	25622		17571	
3.1 to 6	80	29387		31087	
6.1 to 10	45	34777		38333	
10+	38	40865		40914	
Full Model					0.49

Source: Field Survey

The result from the MCA table indicates that the Unadjusted mean predicted Annual income of the Mechanised fisher household as ₹50262/-, Motorised sector ₹26455/- and that of the Non-Motorised sector as ₹.27459/- and also the effect of Types of craft on income of the fishermen before adjusting for its inter-relationship with other eight independent variables. But the corresponding adjusted mean value for Mechanised fisher households is reduced to ₹48965/-, Motorised sector mean value also is reduced to ₹26453 and that of Non-Motorised sector households mean value is increased to ₹ 28193. Further, the R value is reduced to 0.162, from which the R^2 can be calculated as 0.0262. It means that only 2.6 per cent variation in the annual income of fisher households is determined by the Types of craft, when the

effect of other variable is kept at their mean. It also means that by the induction of independent variables, the effect of Types of Craft on annual income reduces indicating insignificant interaction between annual income and other independent variables.

In the same way, Unadjusted mean predicted annual income of the fisher households with alternate source of income is ₹43,557/- and that of the households without alternate source of income is ₹5315/- when assessing the effect of alternate source of income on the income of the fishermen before adjusting for its inter-relationship with other eight independent variables. But the adjusted mean value for households with alternate source of income is reduced to ₹43319/- and that of households without alternate source of income has increased. A further analysis showed that the R value reduces to 0.309 and the R^2 is calculated as 0.0955. It shows that 9.5 per cent variation in the annual income of fisher households is determined by the alternate source of income when the effect of other variables is kept at their mean. It indicates that by the induction of independent variables, the effect of alternate source on annual income reduces indicating insignificant interaction between annual income and other independent variables.

Similarly, the Unadjusted R-values of all socio-economic variables except Number of family members are higher than corresponding Adjusted R values indicating that the effects of socio-economic factors on annual income of fisher households are explained away by their mutual interaction. From the table, it can be seen that adjusted predicted annual income has low positive relation with socio-economic factors. In most of the cases, the mean annual income vary unsteadily depicting no particular pattern of change irrespective of the presence of variables except in the case of size of the landholding and age group of the fishermen i.e., as the size of the landholding increases annual income also increases and as the age increases their income also increases. The Adjusted R-value of the full model is 0.490 from which R^2 can be calculated as 0.2401 which indicates that the overall predictability of the independent variables is 24.01 per cent.

From the result it can be concluded that the socio-economic indicators are interrelated and are capable of predicting about 49 per cent variation in the Annual income. The most important socio-economic variable which determines annual income of fisher households is the Types of craft.

As the Adjusted R score of 0.162 expresses the effect of Types of craft on annual income, after adjusting for other variables. It is found that both Unadjusted R and Adjusted R almost equal. It can be inferred that there is significant difference in the income of fisher households by Types of craft. Similarly, households having alternate source of income make significant changes in the average annual income of fisher households as the Adjusted R score of 0.315 expresses the effect of alternate source of income on annual income after adjusting for other variables and it is found that both Unadjusted R 0.315 and Adjusted R 0.309 are almost equal.

5.5 Hypothesis Tested

Objective No.1: To examine the socio-economic factors influencing financial status of fisher households.

H₀: There is no significant difference in the annual mean income of fisher households by Types of Craft with various economic factors.

Two-Way ANOVA results depicted in Table 5.4 shows that three out of nine economic factors namely year of opening bank account by head of the households (0.008), alternate source of income of the households (0.000), and the income categorisation of the households (0.022) have influence on the annual average income of fisher households by Types of Craft. Hence, the null hypothesis formulated for the study stands rejected.

Conclusion

A glance through the socio-economic factors helped to grasp the prevailing financial status of fisher households very clearly. Educational qualifications of the fishermen have improved, but even youngsters who have completed higher secondary education are engaged in fishing activities. Two-third of the marine fisher households still belong to the BPL category in spite of the support offered by Government agencies and promotional institutions set up exclusively for the fisher households. Despite the fact that, number of initiatives have been rolled out by these agencies, alternate source of income of the fisher households even now depends upon the home maker of the households. Fishermen are left with no choice of employment during the off-seasons. As the alternate source of income has significant bearing on the mean income of the family, there should be realistic efforts to increase the income of the family. Though most of the fisher households own more than 3-6 cents of land, the value of the landholding did not have any influence on the annual average income, indicating the low value of land possessed by the fisher households. Government employees with regular income are found to be just two per cent among the fisher households. The analysis undertaken has revealed that financial status of marine fisher households is very poor. They are unable to avail full suite of financial products and services from commercial banks, especially credit products as they are unable to offer any collateral security for the loan products. Financial inclusion efforts of fisher households should also be focused on the enhancement of the income of the households.