SOCIO-ECONOMIC PROBLEMS OF FISHERMEN IN KERALA WITH SPECIAL REFERENCE TO MALABAR REGION

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By

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CERTIFICATE

Certified that the thesis entitled **SOCIO-ECONOMIC PROBLEMS OF FISHERMEN IN KERALA WITH SPECIAL REFERENCE TO MALABAR REGION**, which is being submitted for the award of the Degree of Doctor of Philosophy in Commerce is an authentic record of the work carried out by **Mr. Alavi Kutty P.M.**, under my supervision and guidance.

He is allowed to submit this thesis.

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DECLARATION

I hereby declare that the thesis entitled **SOCIO-ECONOMIC PROBLEMS OF FISHERMEN IN KERALA WITH SPECIAL REFERENCE TO MALABAR REGION** is a bonafide record of research work done by me and that no part of this thesis has been presented before for the award of any degree, diploma or other similar title.

Calicut University,
Date: 8.9.2004

ALAVI KUTTY P.M.

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INTRODUCTION

Alavy Kutty P.M. “Socio-economic problems of fishermen in Kerala with special reference to malabar region” Thesis. Department of Commerce and Management Studies , University of Calicut, 2004

CHAPTER I
INTRODUCTION

Fishing is one of the oldest employments of mankind. This occupation existed even before the emergence of agriculture and still continues to be one of the major occupations of the world.

Fish products constitute the primary sector as does agriculture. In earliest times most foodstuffs were used at once and not stored; but as population increased, techniques were developed for preserving fish by drying, smoking, salting etc. It became desirable to catch large quantities and consequently specialised equipment was devised. Individual fishing was replaced by collective efforts involving larger, more effective gear.

Fishing equipment and methods were improved through centuries. Mechanisation came to fishing in the 19^{th} century. Small fishing boats became motorised at the beginning of the 20^{th} century. Today, some industrial countries lack sufficient manpower for their fisheries and are attempting to automate with the help of sea borne computers.

In India, fishing habits race back to the first inhabitants in the coastal belt. Fishermen of India, though illiterate, conservative and superstitious, are skilful in using devices for catching fish. They form the most important factor in developing the fishing industry as they possess innate knowledge

and inborn qualities for fishing. However, they are socially and economically backward. Till recently, fishing has generally been considered as a low standard profession to be carried on exclusively by the lower class people. The caste conscious Indian society gave only very little recognition to fishermen and the fishing industry. But, it is gratifying to observe the revolutionary changes in the outlook on fisheries that have occurred in the country after the Second World War. The social stigma associated with the profession disappeared and even upper caste people occupying high status in the society started plunging into the industry.

In India, the importance of fisheries sector is well known as a provider of livelihood to more than six millions of people directly and indirectly and as a major foreign exchange earner. Development of several suitable technologies coupled with extension activities during the last 50 years increased Indian fish production manifold, particularly to occupy the eighth position in the global capture fish production. Presently the fisheries sector contributes about Rs.22200 crores to GDP, which is about 1.4 per cent of the total GDP and 4 per cent of production of the agricultural sector.[1]

The marine fisheries sector has grown to a major industry with a cumulative capital investment of around Rs.3,350 crores and a gross annual income of Rs.8,000 crores according to Central Marine Fisheries Research

[1]M.J. Modayil, "In a Crucial Phase ----------", Survey of Indian Agriculture, published by the Hindu, 139-142, 2002.

Institute (CMFRI). In 1999-2000, the share of marine products was 3.14 per cent of the aggregate export of all commodities from the country valued at Rs.1,62,925 crores. In terms of foreign exchange, the export earning from marine products was Rs.5116.7 crores. Thus, the Indian marine industry is one of the single major contributors of foreign exchange to the country.

The geographical condition of Kerala is favourable for reaping the marine wealth. Due to plenty of seashore and the backwaters, fishing as a profession existed in Kerala even before the advent of fishing habits in the country. In Kerala, fishermen community is one of the most important communities constituting more than 2.60 per cent of the total population.

The relationship of early Arabs and Europeans like Portuguese with Malabar Coast contributed to the development of fishermen in this region faster than other regions in India. The Malabar Coast provides one of the richest fishing zones in India.

IMPORTANCE OF THE STUDY

Kerala is one of the leading maritime states. It has a coastline of 590 kms, which constitute 10 per cent of India's total coastline. Fishing has naturally been the major occupation of the inhabitants of its coastal area from time immemorial. Out of the 3638 fishing villages in the country, 222 are in Kerala. Similarly, of the 2251 fish landing centres in India, 226 are in the State. Kerala, which occupied a proud place in the fish production in India

for a long period in the past, still accounts for one-fifth of the country's marine production. There were 2.26 lakh active marine fishermen in the State during the year 2000. Occurrence of mud banks (chakara) is an annual phenomenon in several localities along the Kerala Coast between Kollam and Kannur. Mud banks, which are the storehouses of nutrients like phosphate, promote rich plankton production. This in return results in abundant production of fish in the area. The importance of fisheries sector to the State is widely acknowledged. Its significance lies in three main areas, viz., (i) as a source of animal protein for human consumption (ii) as a provider of employment and (iii) as a source of foreign exchange.

PROBLEM FOCUS

In spite of its importance to the economy, the fishing sector has been facing severe problems like wide spread misery and poverty of fisherfolk. The fishing community in Kerala forms one of the most backward classes both socially and economically.

Though literacy and education are the hallmark of Kerala's social development, fishing communities lag in this aspect. As a community, they have been isolated and they live in clusters. Many of the marine villages lack drinking water and sanitation facilities which are two vital factors related to health. Most of the marine fishing villages are densely populated with the average numbers in a family exceeding the state average. Their social status

is very low due to the very nature of their occupation. Fishing is not only seasonal but the output always subject to violent fluctuations too. The fishermen are forced to depend upon merchants and middlemen for their daily life. Indebtedness is a common feature of any fishing household. Moreover, fishing belongs to an unorganised sector and hence it suffers from unscientific catching, processing and marketing of fish. In short, they have been subject to various types of exploitation, both socially and economically. However, such problems seldom received the attention by academic community or administrative authorities.

Fishermen constitute the backbone of Kerala's fishing industry. Hence the growth and development of the industry depends upon the social and economic well being of the fishermen. Interest in the study was further raised due to the technological changes in the fisheries sector. Mechanisation was introduced in 1954 and as a result mechanised boat came into operation. To counter the mechanical boat fishing, traditional fishermen motorised their crafts. The technological changes were made for the upliftment of the socio-economic conditions of fisherfolk by increasing their productivity. Hence an attempt is made to assess whether social and economic conditions imposed on the fishing community by history are still continuing in the same magnitude.

REVIEW OF LITERATURE

A review of past studies is useful to understand the various aspects of the problem taken up for the research, to plan the current study effectively.

Mishra and Beyer (1976) have studied the cost benefit of Ratnagiri Fisheries Project.

Duraraj (1981) examined the social and economic status of marine fishermen operating Catamarams and mechanical boats. According to him, there had been wide disparity in income distribution among fishermen of mechanised and traditional sectors. Of them, fishermen of mechanised sector had reaped maximum benefits. Therefore, it was suggested that increase in flow of institutional credit would help the fishermen in the other sector.

Rao P.S. (1983) shows that the fishermen in India by and large are facing problems from middlemen while marketing their fish and their heavy indebtedness push them to abject poverty.

Guptha V.K. (1984) throws light on the marine fish marketing practices in different states of India.

Subha Rao (1986) gives the details of operational efficiency of mechanised and non-mechanised boats in the coast of Andhra Pradesh. The study shows that the net profit per boat per year is higher in case of non-mechanised boat than mechanised boat.

Mathiarjunan (1989) examined the operational efficiency of fishing crafts with input-output ratio. The output ratio was relatively higher for non-motorised sector than mechanised sector due to lower input costs.

Devarajan (1989) found out from his study that village merchants and wholesalers were the main intermediaries intervening in prawn marketing between fishermen and processors. He pointed out that financial assistance extended by these intermediaries for various purposes forced them to sell the catch to them.

Bal D.V and Virabadra Rao (1990) viewed that manmade hazard like environmental pollution affected the supply of marine fish in the country. The study also shows that fishery institution like fishery co-operatives is not possessing adequate strength to support marine fishing sector.

M. Muktha Shet (1991) has made a study on the participation of women under new fisheries technology. The study revealed that the technology on the whole has benefited most of the fisherwomen directly or indirectly. However, a smaller section of the non-motorised sector has not benefited from mechanisation due to traditionality and households having a lower number of active fishermen.

Srivastava (1991) has made a study on fishery sector of India, which reveals that the growth of marine fishing in the country is constrained by the lack of proper infrastructural facilities, adequate support from the government

to export marine products, the cumbersome licensing procedures to acquire deep-sea fishing vessels etc. The study also identified the information gap pertaining to the resource availability in the deep-sea fishing grounds.

K.V.M. Varambally (1993) has made a study on the impact of mechanisation in marine fishing on fishermen households in Dakshina Karnataka.

Aveline R. D' Souza (1994) has undertaken a study to know and discern the impact of technological innovations on the cultural legacy of the fisherfolk of Karnataka coast.

Pazhani (1998) highlighted that money lenders and fish traders were playing a significant role in the credit market structure by contributing 61 per cent of the total loan advanced by different agencies, followed by banks (28 per cent) and friends and relatives (10 per cent). He further suggested that provision of credit and continuous monitoring would help for the over-all development of the fishermen society.

In Kerala, no significant studies on fisheries were done before 1975. Interest in fisheries study has increased in recent years. There is a voluntary organisation, viz., Programme for Community Organisation (PCO) with its head quarters at Thiruvananthapuram deeply interested in the studies of traditional fisheries sector. Under its supervision many significant studies on different aspects of fishermen community are being conducted now.

Some of the studies in Kerala on fisheries are as follow:

P.G.R. Mathur (1977) has made an investigation in Tanur fishing village of northern Kerala on the positive effects emerging from mechanised fishing. He has pointed out the structural and organisational changes taking place in the fishing sector due to mechanisation.

Dr. John Kurien (1978), Centre for Development Studies, has made a study on the impact of technological changes in the fisheries sector. Kurien's was a macro analysis of fisheries development on the basis of available secondary data and mainly concerned with the trends in production and distribution of fish output during the post-mechanisation period of 1963-76. Its main findings were that the output growth was distributed in favour of the mechanised sector and that the traditional sector was further marginalised.

Joseph Vattamattom (1978) found that in Poonthura, a traditional fishing village of Kerala, the fishermen encountered numerous problems. Mechanised fishing has not come to the area owing to the absence of facilities required.

Annie Felice (1980) has studied the living conditions of fishermen in the Vypeen Island of Central Kerala. Felice has also pointed out the structural and organisational changes taking place in the fisheries sector consequent on mechanisation. According to Felice, a group of absentee fishermen was emerging, a section who came from the outside fishing sector.

Abdul Hakim (1980), on the basis of a case study of a few co-operative societies in Kollam district, which accounted for a major share of mechanised fishing in Kerala, concluded that the lion's share of benefits of mechanised fishing in the State was garnered by persons or groups not actually engaged in the fish production sector, such as officials, traders and industrialists, but who set up fictitious fishery co-operatives.

P. Ibrahim's (1986) study was to trace the course of mechanisation in the fishing sector of Kerala and to examine its impact on the growth in output, employment, income and consumption. He concluded that the net impact of the introduction of mechanisation in the fishing sector of Kerala had been negative.

Jessy Thomas (1989) examined the relationship that exists between education and economic development of fisherfolk. The study reveals that education enabled the fisherfolk to be mobile up to an extent and helped them to get employment outside Kerala.

Sreeranganadhan (1989) has studied the role of co-operative societies in the socio-economic development of fishermen in Kerala. The study reveals that fishermen societies in Kerala have miserably failed to attain their objectives.

Rajan (1995) has made a study on the impact of Matsyafed on the socio-economic development of fishermen in Kerala.

The brief review of the above literatures indicate that some of the studies in India and neighbouring states pertain to constraints on the growth of marine fishing in India, environmental pollution and its effect to marine fishing activity, shortcomings of institutions like fisheries co-operatives etc.

However, in Kerala most of the studies are connected with technological change in the sector. Further, no significant study has been done with reference to Malabar Region except the one by Mathur in Tanur village of the study area and that too on technological changes in the sector. In short, no comprehensive study has been undertaken on the "socio-economic problems of fishermen in Kerala with special reference to Malabar Region". The present study is an attempt to fill this gap.

OBJECTIVES OF THE STUDY

The main objectives of the study are as under.

1) To examine the social problems of fishermen in the Malabar Region.

2) To examine the economic problems of fishermen in the Malabar Region.

3) To study the catching and marketing problems of fishermen.

4) To suggest remedial measures for improving the socio-economic conditions of fishermen.

HYPOTHESES

On the basis of the above objectives, the following hypotheses have been formulated.

H_1. Most of the households are getting educational aid from the Government for the education of their children.

H_2. Fishermen do not want their children to be fishermen.

H_3. Majority of the fishermen do not have any savings.

H_4. Most of the fishermen are in debt.

H_5. Mechanical boat fishing adversely affects traditional fishing.

METHODOLOGY

COLLECTION OF DATA

The study is designed as a descriptive one. The population under study is fishermen households in the Malabar Region. The study makes use of both primary and secondary data.

Primary data

Primary data have been collected from fishermen using structured interview schedule. Before giving a final shape, the interview schedule was pre-tested with the help of a pilot survey in two Panchayats and one

Muncipality of Malappuram district and in Kozhikode Corporation of Calicut district. The tentative interview schedule was revised and re-drafted on the basis of the experience of the pilot survey. In addition, necessary details have also been gathered from discussions with officials of Matsyafed, Fishermen's Welfare Fund Board, Fisheries Department, leaders of fishermen's organisations and other persons conversant in this field.

In order to study their social problems, the schedule contains indicators like education, health, sanitation and drainage, drinking water, housing, recreation, social activities and attitude towards the job.

Economic problems of the fishermen have been studied with the help of indicators like ownership of fishing equipment, subsidiary occupations, income and expenditure, savings, debt and their membership in the Fishermen's Welfare Fund Board.

The schedule also contains indicators to study their problems particularly in the field of catching, marketing and renovation of their fishing equipment.

Sample Design

For the purpose of studying the socio-economic problems of fishermen a representative sample of fishermen households were drawn by employing multistage random sampling method.

Sampling Area

The study area is spread over five coastal districts of Malabar region, namely Trissur, Malappuram, Calicut, Kannur and Kasargode districts. There are 60 coastal Grama Panchayats, 10 coastal Muncipalities and one coastal Corporation in the five districts.

At the first stage, two Grama Panchayats and one Municipality each have been selected from the 5 districts on a simple random technique. However, in Calicut district, the Corporation of Kozhikode is chosen on purposive basis, as this is the only corporation in the study area. Further, 2 wards from each Grama Panchayat, 2 divisions from each Municipality and 2 divisions from the Corporation are chosen in the second stage of sampling.

At the third stage, 25 households from each of these wards and divisions were taken as the sample unit. Thus, from the 5 districts 800 sample households were selected.

The basic area of sample units and their details are shown below.

District	Panchayat	Ward	Municipality	Division	Corporation	Division
CALICUT	Moodadi	13, 14	Wadagara	39,40	Kozhikode	26, 47
	Elathur	1, 15				
TRISSUR	Punnayurkulam	12,14	Chavakkad	23, 27	-	-
	Punnayoor	1, 8				
MALAPPURAM	Parappanangadi	18,20	Ponnani	1, 48	-	-
	Tanur	13,15				
KANNUR	Edakkad	1,10	Talasseri	37, 38	-	-
	Darmadam	9,10				
KASARGODE	Neelaswaram	16,17	Kanjangad	1, 2	-	-
	Ajanoor	15,16				

Secondary data

Secondary data have been collected from the following sources: -

1) Directorate of Fisheries, Trivandrum.

2) Marine Products and Export Development Authority (MPEDA), Cochin.

3) Central Marine Fisheries Institute (CMFRI), Cochin.

4) Reports and studies of Centre for Development Studies (CDS), Trivandrum.

5) Directorate of Economics & Statistics, Trivandrum.

6) Text Books on the subject.

7) Journals and Magazines.

8) Newspapers.

Tools of Analysis

To analyse the collected information, simple mathematical techniques like percentages and averages are used in appropriate circumstances. To analyse the two-way frequency tables the statistical technique χ^2 has been applied

The χ^2 test for Independence of Attributes:

To test the independence of two attributes the χ^2 test is used. The formula for statistic is

$$\chi^2 = \sum (0-E)^2 / E$$

The high value of a χ^2 rejects the hypothesis that the two attributes are independent. If p value is less than 0.01 the association is highly significant (significant at 1% level). If p value is between 0.01 and 0.05 the association is significant at 5% level. If p value is greater than 0.05 the association is insignificant.

If the association is significant, assuming the sample is a representative of the population, we can generalise the findings to the entire population.

PERIOD OF THE STUDY

For an intensive study, a period of 10 years from1992-93 to 2001-02 has been selected. However, a longer period has also been taken when the trend could be studied in its historical perspective.

LIMITATIONS OF THE STUDY

As in the case of all social science researches this study is also not free from limitations, as stated below.

1) Illiteracy of the fishermen was the serious limitation of the study. Since most of the fishermen are uneducated, the availability and reliability of data caused some difficulty.

2) Some of the respondent fishermen have been reluctant to part with information pertaining to income, debt, savings etc., fearing that the investigator is from the Fisheries Department, Matsyafed, banks, etc. In such cases the researcher had to resort to indirect methods for gathering information.

3) Some of the primary data elicited from the respondents are based on re-call methods and, therefore, subject to normal recall errors. However, maximum care has been taken to avoid the above anomalies and to reach at meaningful inferences.

DEFINITIONS OF TERMS USED IN THE STUDY

For better understanding of terms used in the study, their definitions are given below.

1) Fishing

Unless otherwise stated 'fishing' means marine fishing. Hence inland fishing does not come in the scope of the study.

2) Fishermen

The word fishermen denotes to that category of persons who earn their main source of livelihood through the process of catching the sea-fish using any type of craft. Hence persons handling the fish on the seashore, fish merchants etc. do not come under the definition of fishermen.

3) Traditional fishermen

Persons living traditionally on the coastal areas and involved mainly in fishery for their livelihood.

4) Household

A group of related persons who normally live together and take their meals from a common kitchen.

5) Nuclear family

A family consisting of only parents and their children.

6) Joint family

A large family which has a greater generation depth than nuclear family and members of which are related to one another.

7) Vallam

Includes both country and motorised crafts. These are crafts other than mechanical boats.

PRESENTATION OF THE REPORT

The study report has been presented in 6 chapters.

Chapter I gives the introduction to the topic of study and explains the importance of the study, problem focus, review of literature, objectives of the study, hypotheses, methodology, period of the study, limitation and plan of the report.

Chapter II describes the significance of fishing industry in Kerala.

Chapter III gives a detailed description of the social problems faced by fishermen.

Chapter IV examines the economic problems of fishermen.

Chapter V Mainly deals with problems relating to the catching and marketing of the fishes.

Chapter VI is used to summarise and present the findings of the study and suggest possible remedies for improving their socio-economic conditions.

SIGNIFICANCE OF FISHING INDUSTRY IN KERALA

Alavy Kutty P.M. “Socio-economic problems of fishermen in Kerala with special reference to malabar region” Thesis. Department of Commerce and Management Studies , University of Calicut, 2004

CHAPTER II

SIGNIFICANCE OF FISHING INDUSTRY IN KERALA

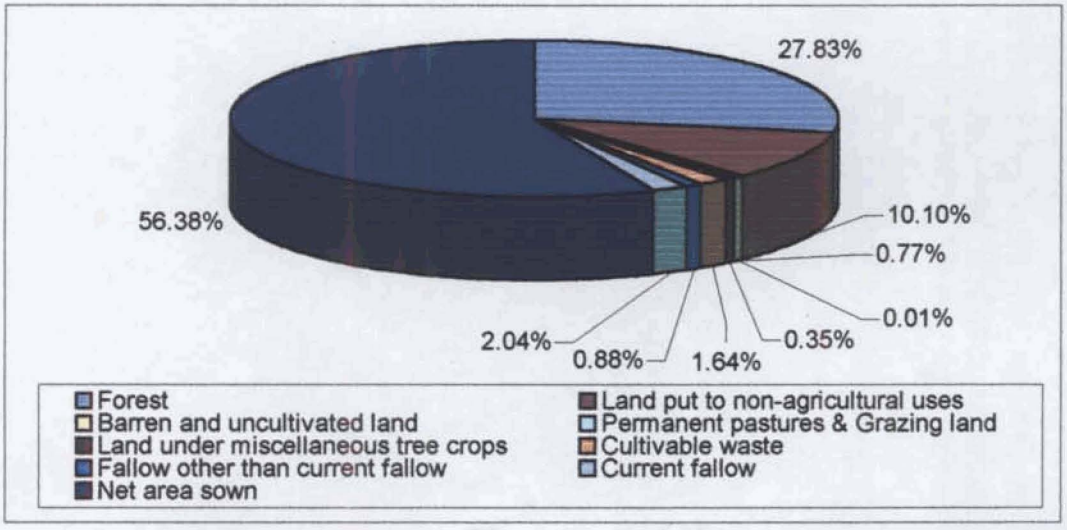
Fishing plays an important role in the economy of Kerala. Due to heavy pressure of population on land, per captia availability of arable land is dwindling. At the same time, the State fishery resources remain unexploited. The geographical feature of the State, the pattern of cultivation and the pressure of population have influenced the growth of fisheries in the State.

The geographical condition of Kerala differs from that of other states in India. Kerala is a small state tucked away in the southwest corner of India, enclosed between the high Western Ghats in the east and the Arabian Sea on the west. It has a land area of 38,863 sq.km. which is 1.18 per cent of the total area of India, but 3.1 per cent of the total population of the country is in Kerala.

The State has a coastal length of 590 kms which constitute 10 per cent of India's total coastline. Appendix-I reveals that of the total geographical area of 38.85 lakh hectares, net sown area is 56 per cent. Forest occupies 28 per cent. Agriculture and forest sectors together account for over 84 per cent of the total land area. This is depicted in Fig. 2.01. In view of high density of population, the pressure for non-agricultural uses is increasing. Appendix-I

also shows that land under non-agricultural uses was 7.79 per cent in 1992-93 and was increased to 10.10 per cent in 2001-2002. There was no perceptible improvement in the extent of land use for agriculture. In fact, the net-cropped area has declined from 22.50 lakh hectares to 21.91 lakh hectares between 1992-93 and 2001-02.

Fig. 2.01. Land Use Pattern (2001-02)



Moreover, the total area available for the cultivation of food crops is gradually decreasing due to the encroachment of plantation or non-food crops. It can be seen from Table 2-01 that the area under cultivation of food crops like rice and tapioca decreased during the period of 10 years from 1992-93 to 2001-02 while the area under cultivation of plantation crops like rubber increased during the period. This shows the tendency to convert the lands

which were earlier used for cultivation of food crops into plantation of non-food crops.

TABLE 2.01

Area of Rice, Tapioca and Rubber in Kerala

Crops	Area (Hectares)		Increase/Decrease from 19992-93 to 2001-02.
	1992-1993	2001-02	
Rice	5,37,608	3,22,368	-2,15,240
Tapioca	1,35,033	1,11,189	-23,844
Rubber	4,44,096	4,75,039	30,943

Source: Directorate of Economics and statistics, Government of Kerala, Trivandrum.

During this period from 1992-93 to 2001-02 the production of food crops shows a decreasing trend. The following Table 2.02 reveals the production of rice and tapioca during these periods.

TABLE 2.02

Production of Rice and Tapioca

Crops	Production (Tonnes)		Increase/Decrease from 19992-93 to 2001-02.
	1992-1993	2001-02	
Rice	10,84,878	7,03,504	-3,81,374
Tapioca	26,29,127	24,55,880	-1,73,247

Source: Directorate of Economics and Statistics, Government of Kerala, Trivandrum.

When the production of rice was reduced by 3,81,374 tonnes, the production of tapioca was reduced by 1,73,247 tonnes during the period from

1992-93 to 2001-02. This shows that the internal production of food crops in the State is declining. Due to this grave situation, the State has to depend heavily on other states for its food requirements.

Moreover, the shortage of food requirements in the State is further aggravated by its ever-increasing population at an alarming rate. According to 2001 census, the total population in Kerala was 318.40 lakhs. Appendix-II shows that the population in Kerala was increasing at a higher rate than All India population rate from 1901 to 1971. But since 1981 the rate of increase in the population of Kerala has been less than the All India rate of increase. However, the population in the State in absolute figures shows an increasing trend.

Thus, the ever-increasing population always exercises heavy pressure on land which is indicated by density of population. The present density of population for Kerala is 819 persons per sq.km., whereas the density of population for India as a whole is 324 persons per sq. km. The density of population in Kerala was 747 persons as per 1991 census. That means, the density of population for Kerala has raised by 72 persons during the 10 years of 1991 to 2001. Among the Indian states, Kerala is in third position in respect of density, the first being occupied by West Bengal and the second by Bihar. This increase in population is another important factor that poses the problem of food shortage in the State.

Due to these unique features of the State like scarcity of food, increasing population, high density of population, development of non-food crops instead of food crops, it is high time for the State to concentrate on alternative source of food, if we want to tackle this grave situation. In this juncture, fisheries have a significant role as an alternative source of food.

Role of Fisheries

Kerala is physically the smallest but one of the most active maritime states of India. It is blessed with a long coastline and 44 rivers and a number of lakes, which constitute the inland fishery resources. The abundant supply of fish both from sea and inland waters helps a lot to reduce the severity of food scarcity in the State. Since ancient times, fish has constituted one of the major parts of the diet of Keralites. "It is estimated that about 70 per cent of the total fish production in the State is being consumed internally. The annual percapita consumption of fish in the State is about 20.02 kg which is higher than the national average consumption."[2]

When compared to that of the other states in the country, the per capita consumption of fish in Kerala is 6 times higher than the all India average. The number of houses in Kerala where fish is being used for consumption is 829 per thousand in villages and 812 per thousand in cities. The following

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[2] Raju Narayana Swami, "Matsaya Sambath Akshaya Pathramo", Prabath Book House, Thiruvananthapuram, Page 160.

Table 2.03 reveals the monthly per capita consumption of fishes in Kerala and other states.

TABLE 2.03

Monthly per capita consumption of fish in Kerala and other states

States	Villages		Cites and Towns	
	Quantity (kg)	Fish consumption per thousand houses (No. of houses)	Quantity (Kg)	Fish consumption per thousand houses (No. of houses)
Kerala	1-06	829	1-59	812
Tamil Nadu	0-12	206	0-11	320
Karnataka	0-08	116	0-07	114
Andra	0-07	240	0-08	221
Gujarat	0-02	79	0-02	87

Source: Aasoothrana Sahayi (4) - Fisheries Sector -1998, published by State Planning Board - Govt. of Kerala.

This table reveals that in consumption of fish the State is far ahead of other states in the country. "It is often said that if the whole human population switched over to fish for staple diet, we could survive for millions of years even at the present rate of growth in population since fish resources are inexhaustible. If we don't exploit them they will be lost".[3]

[3] Dr. S.S. Khana & M.C. Deviah, "Strategy to Enhance Fish, in Particular Prawn Production in India" - Yojana - April 1-15, 1989 - Page -19.

According to John Kurian, about three quarters of the annual protein intake of the State's population is derived from fish."[4]

"The per capita availability of protein originating from fish is 4 gram per day from 20 gram edible portion of fish while that from meat, egg and milk is only nominal. Since the diet of the people is mostly protein deficient and the cereal supplies only half of the requirements, there is a pressing need for stepping up food production in the State. Proper exploitation of the rich fishery resources of the State could go a long way to help solve the food problem of the State".[5]

Thus, instead of meeting all the food requirements from land-based resources, we have to look into marine resources which are quite extensive in nature. Moreover, marine resources are renewable and replenishable year after year. Even if certain quantity of fish from the total stock in sea is exploited, it is self-renewing.

Fishery industry is a source of raw material to other industries. Fish manure serves as a source of oil for soap making. Fish skins can be converted into fine leather. Japan produces more than 200 varieties of fishery by-

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[4] John Kurian - Kerala's Marine Fisheries Development Experience" Kerala Economy, Performance, Problems & Prospects by BA Prakash, Page 195 - Published by Sage Publications, New Delhi.

[5] Integrated Fisheries Development Project for Kerala - Project Report - Beypore. By Govt. of Kerala Development Department (1975).

products. The major by-products are fish oil, fish bones, prawn pickle, frozen crab, meat, etc.

Fish Economy of Kerala

The State has all the requisite natural endowments for building a strong and vibrant fisheries economy. They include a stretch of coastal belt extending over 590 kms. and an extensive inland water resource spread over 4 lakh hectares. The exclusive economic zone (sea spread up to 200 meters) lying adjacent to Kerala coast is around 40,000 square kilometers which is almost equivalent to the land area of the State. The district-wise details of coastline and continental shelf area of Kerala are presented in Appendix III.

The assessment of fishery resources made by the Central Marine Fisheries Research Institute reveals that there is potential for capture fishery to the extent of 11.50 lakh tonnes in the marine sector. According to the statistics for 2001-02, marine fish production in Kerala was 5.94 lakh tonnes which accounted for 20.48 per cent of the production of the country. Appendix IV gives the details of fish production in Kerala and in India as a whole.

The trend in marine production of Kerala reveals that the average fish production during 1980-1988 was 3.31 lakh tonnes per annum. In other words, up to 1988 the marine production was stagnating around 3.31 lakh tonnes per annum. Since 1989 the marine fish production has been increasing

and the average production from 1989 to 2001 was 5.80 lakh tonnes. This increase in fish production was due to the resource conservation measure viz., ban on monsoon trawling introduced by the State Government since 1989.

The fish production during 1980-2001 shows that Kerala contributes an average 21.53 per cent of India's fish production. Thus, Kerala is one of the principal fish producing states in India among the maritime states in the country. Appendix IV also shows that fish production in the State was hovering around 5.7 lakh tonnes during the last one decade. As for the last two decades the year 1990 recorded the highest marine fish production of 6.78 lakh tonnes. The lowest production during the last decade was in 1997 with 5.11 lakh tonnes.

Although the fish catch from the Kerala coast include more than 300 different species, the commercially important ones comprise only 40 species of marine fish. However, the success and failure of the fish production in the State is determined mainly by a few species like sardine, mackerel and prawns.

The quantity of the highly valued species in the total catch ultimately decides the income of the fishermen. Unfortunately, the share of highly valued species among the fish catches is still very little. Prominent among them are promfret, seerfish and prawn. Appendix V reveals the species-wise composition of fish landings in Kerala from 1992-93 to 2001-02. The annual

average production of these three species is 2338 tonnes (promfret), 5098 tonnes (seerfish) and 54497 tonnes (prawns). This constitutes 0.40 per cent, 0.89 per cent and 10 per cent respectively of the average fish production of the last ten years.

Of the average fish landing in the State during the last ten years, the annual average catch of oil sardine was 86,647 tonnes, constituting 15.20 per cent of average production. Oil sardine is the most important variety consumed mainly by poor sections of the society. Mackerel, another important low-valued item, mainly consumed internally constitutes 12.60 per cent of the average fish production of the last ten years. Since the production of low-valued species is more than that of the highly valued species, a major portion of our production is consumed internally. However, we have a leading role in the export of marine fishes.

EXPORT

Fishery is an important source of foreign exchange. Export earnings from fisheries sector in India have been from marine fisheries sector, which has grown to a major industry with a cumulative capital investment of around Rs.3350 crores and a gross annual income of Rs.8000 crores according to CMFRI. During 2002-03, of the total export earnings of the country, 2.6 per cent was from marine products.[6]

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[6] Economic & Political weekly - August 2-8, 2003 page 3223.

Though India ranked 4th among the fish producing countries, it occupies only the 17th position among the fish exporting countries of the world.

Kerala plays a major role in the export of marine products in the country. Appendix-VI gives the details of marine exports from India as a whole and from Kerala from 1992-93 to 2001-02. The performance of exports from India as well as from Kerala both in terms of quantity and value are also depicted in Fig. 2.02 and 2.03 respectively.

Fig. 2.02. Quantity of Marine Exports in India & Kerala from 1992-93 to 2001-02

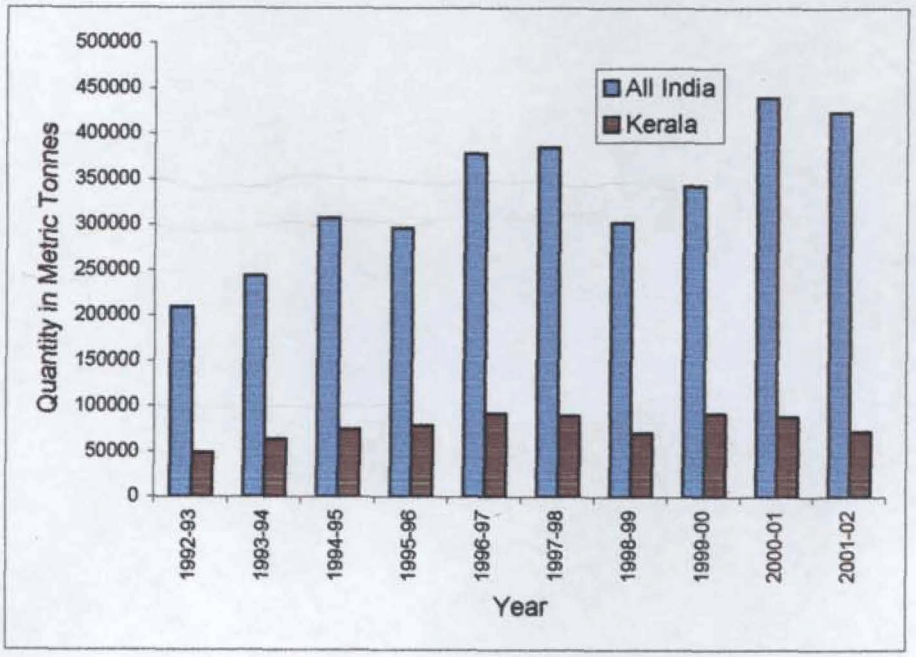
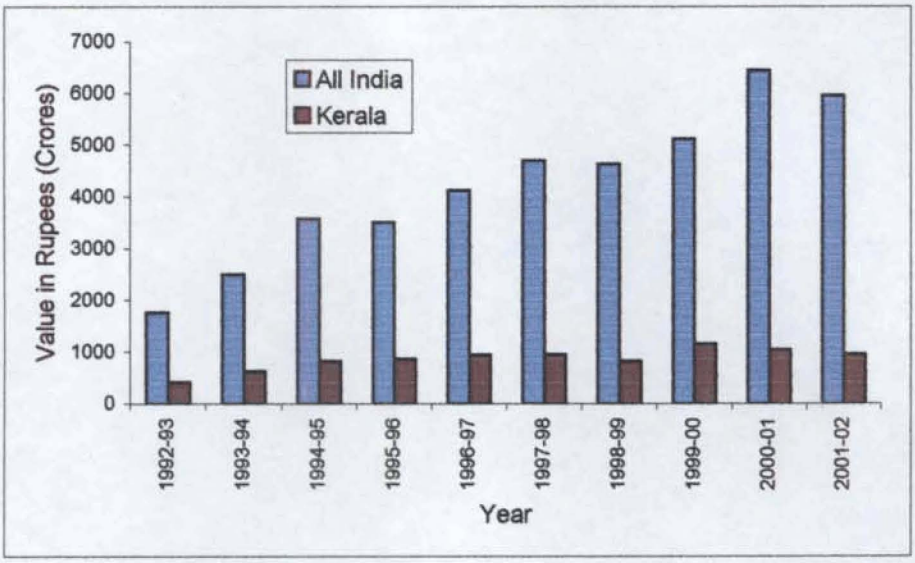


Fig. 2.03. Value of Marine Exports in India & Kerala from 1992-93 to 2001-02



From 1992 to 97 Kerala exports have increased considerably both in terms of quantity and value. However, the export of marine products from Kerala decreased from 92,288 tonnes valued at Rs.936 crores in 1996-97 to 89366 tonnes valued at Rs.948 crores in 1997-98. It shows a decrease of 3.17 per cent in quantity. But the value increased by 1.28 per cent because of hike in prices.

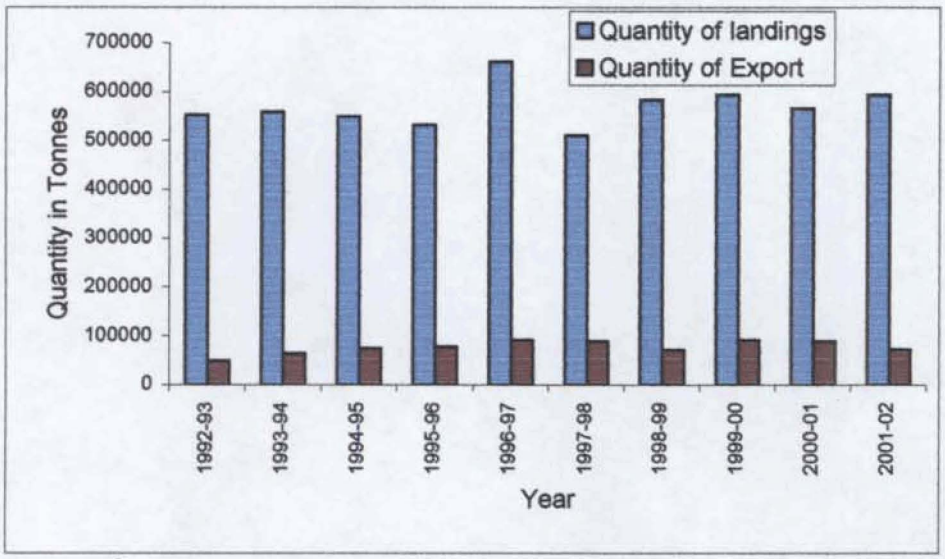
The export of marine products went up from 70641 tonnes valued Rs.817 crores in 1998-99 to 92,148 tonnes valued at Rs.1148 crores in 1999-2000. The overall export from the country also increased from 302934 tonnes valued at Rs.4627 crores to 343031 tonnes valued at Rs.5117 crores during this period. Also, during this period, the contribution of the State to the

export of marine products from the country has increased from 23 to 27 per cent, while in monetary terms, it was from 18 to 22 per cent.

The export performance of Kerala has shown a negative trend during 2001-02, both in terms of quantity and value. The marine export from the State during 2001-02 was to the tune of 72756 tonnes valued Rs.951 crores constituting 17 per cent in terms of volume and 16 per cent in terms of value of Indian marine products export. The export of marine products from the State during 2001-02 declined by 18.12 per cent in quantity terms and 9.08 per cent in rupee terms compared to the previous year's. The overall export from the country also declined during this period by 3.63 per cent in quantity and 7.56 per cent in value terms. The two reasons for the decline in export realisation could be the economic slowdown in one of the major markets, viz., Japan and crash in the price of back tiger shrimp in the international market. The State's share in the all India export has been declining in recent years. The share declined from 27 per cent in quantity terms in 1999-2000 to 17 per cent in 2001-02. But, the share in value has remained the same 16 per cent during the last two years. Yet, today Kerala continues to be the principal marine exporting state in the country. In short, though Kerala's share is coming down, export from Kerala has been generally on an upward trend except during 1997-98, 1998-99, 2000-01 and 2001-02.

When we compare the share of export quantity of marine products with the total quantity of marine landings in the State, it could be seen that export share is between 8.87 per cent and 17.49 per cent of the landings during the last 10 years, 1992-93 to 2001-02. Appendix VII shows the marine fish landings and their export from Kerala during the period 1992-93 to 2001-02. From 1992-93 to 1995-96 the share of marine fish export to the total fish production was increasing. However, in 1996-97 it decreased to 13.96 per cent. The highest percentage of export quantity to the total fish landings was registered during 1997-98 when the State exported 17.49 per cent of the total marine production. In 1998-99 the share of export to the total fish production declined to 12.13 per cent and was stagnating around 15.50 per cent in 1999-00 and 2000-01. In 2001-02 the State was able to export only 12.25 per cent of its total marine production. The marine fish landings and their export from the State during 1992-93 to 2001-02 are depicted in Fig. 2.04.

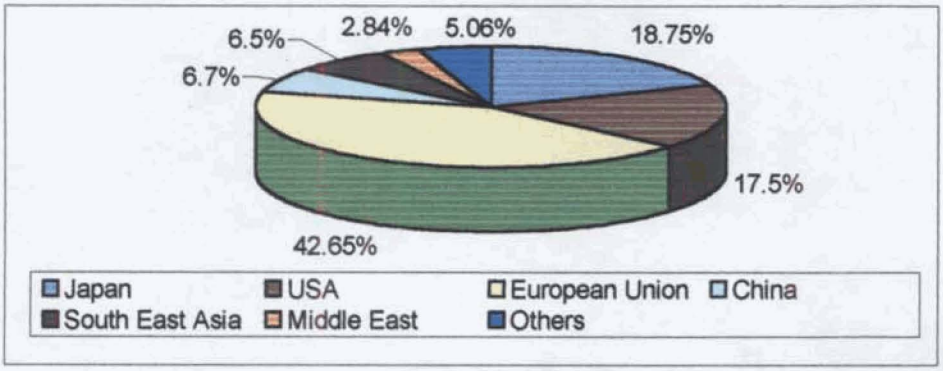
Fig. 2.04. Marine Fish Landings and their Export from the State during 1992-93 to 2001-02



The major markets for Kerala's marine products are shown in Appendix VIII. European Union continued to be the major market for the marine products exported from Kerala with a share of 42.65 per cent in value and 44.61 per cent in volume during 2001-02, compared with the 35.30 per cent in value and 32.90 per cent in volume during 2000-01. Japan is the second largest market with a share of 12.29 per cent in quantity and 18.75 per cent in value. Exports to USA in 2001-02 were 14.34 per cent of the total volume of export and 17.50 per cent of the total value of export. It shows that the exports to USA declined both in quantity and value when compared to 2000-2001. China imported 5550 tonnes (7.63 per cent) of marine products and the value realised was Rs.63.66 crores (6.70 per cent) during 2001-02.

China's share during 2000-01 was much higher than that during 2001-02. The major export markets and their share are shown in Fig. 2.05.

Fig. 2.05. Major Export Markets and their Share during 2001-02



Although, the Kerala export of marine products consists of various items, the commercially important are four products, namely, frozen shrimp, frozen fish, frozen cuttle fish and frozen squid. The other products are frozen crab, live fish, dried fish etc. The item-wise export of marine products from the State both in terms of quantity and value are shown in Appendix IX.

Out of the total 72,756 tonnes of marine products exported from the State valued at Rs.950.55 crores during 2001-02, frozen shrimp ranked first. During 2001-02, the export of frozen shrimps was 28,023 tonnes and it came up to 38.52 per cent of total volume of export. In terms of value also, frozen shrimp occupied the prime position with the largest annual export worth Rs.549.48 crores and it was 57.81 per cent of the total marine export of the State. Thus, frozen shrimp is the most important item of export of Kerala.

Frozen cuttle fish is the second major item of export in terms of quantity and value. Its share was 18.99 per cent of total quantity of export and 16.12 per cent of the total value of export during 2001-02.

Frozen squid is in the third place the share of which was 16.93 per cent of the volume of export and 12.12 per cent of the total value of export during 2001-02.

Frozen fish is another important item of export, but in value terms it accounted for only 5.83 per cent of the total value of export during 2001-02, indicating that it is a low priced item. It also suggests that there is demand for low-valued fish in the overseas market.

Appendix IX also shows that the exports of these four product lines have shown an increasing trend both in terms of quantity and value over 1992-93 period. But, they have a declining trend both in terms of quantity and value compared to the previous year of 2000-01. However, marine sector still has a significant role from the point of view of its contribution to foreign exchange, besides serving to reduce the food problem of the State. There is also enough scope for further demand for marine products in the world market due to increased health consciousness.

EMPLOYMENT

Fisheries sector also provide employment. As fishing is a labour-intensive activity, it can provide much employment opportunity in its various sectors such as fish catching, processing, freezing, transporting, marketing and allied activities. Since present day fishing is mechanised and motorised it requires highly skilled and technically qualified hands for maintenance and servicing of fishing equipments. A boatful of fish can be caught by six or seven fishermen. In case of large OBM crafts, on an average, thirty to thirty five persons are engaged in fishing. But, it requires further carriers to bring the catch into the seashore. A number of persons are also involved in carrying to the ultimate consumers or to the major marketing centres. Compared to other areas of fishing, more people are involved in its transportation.

The estimated fishermen population in Kerala during 2001-02 is 10.75 lakhs which includes 8.28 lakhs in marine and 2.47 lakhs in inland sector. Appendix X shows the details of fishermen in the State. Alappuzha district is in the first place in the number of fisherfolk with a population of 1.81 lakhs followed by Thiruvananthapuram (1.76 lakhs).

But, Thiruvananthapuram is in the first place in the number of marine fisherfolk with a population of 1.74 lakhs followed by Alappuzha (1.16 lakhs). Of the total marine population, Malabar region claims 3,63,605

fisherfolk covering Trissur, Malappuram, Calicut, Kannur and Kasargode districts. This constitutes 43.92 per cent of the total marine population of the State.

The number of active fishermen during 1999-2000 was 2.26 lakhs which comprises 1.85 lakhs (82 per cent) in marine and 0.41 lakh (18 per cent) in inland sector.

This sector also provides employment to a very large number of people who are engaged in allied activities as beach workers, small traders, dried fish workers, peeling workers, fish processing workers etc.

Since fish is a perishable commodity, it requires to send the fishes from the producing centres to ultimate consumer market without waste of time. Hence, fish marketing function includes all those activities until the product reaches from the producer to the consumer. There is enough scope for employment in the field of preserving the fish with ice or freezing, salting, drying etc.

In a state like Kerala where unemployment is the crucial problem, fisheries sector plays a vital role in providing jobs to thousands. Moreover, the peculiar feature of Kerala's unemployment is that women outnumber men who seek employment through Employment Exchanges. The total number of women job seekers who registered their names in Employment Exchanges in Kerala as on September 2002 was 22.26 lakhs compared to 17.30 lakhs men

registered with Employment Exchanges. Hence, the women job seekers are more by 12 per cent than the men job seekers. In this circumstance, there is enough scope for employment of women in allied sector of fisheries. There is a large number of women employed in this sector as peeling workers, fish processing workers, factory workers, small retail traders, beach workers etc. Hence, fisheries sector provides more employment to a large number of women than any other primary sector in the State.

Many industries associated with fisheries can also absorb people for productive employment. Industries such as boat-building, net-manufacturing plants, construction of processing establishments, workshop for maintenance of boat, repair shop for engines, creating infrastructural facilities for preserving the fish and so on can provide very good scope for employment at fisheries.

A number of entrepreneurs have started export oriented processing units in the State. There are 124 freezing plants with the freezing capacity of 2154 tonnes per day in Kerala. The infrastructure facilities in the fisheries sector also generate employment to a large number of people.

Thus, fisheries sector contributes directly and indirectly to the generation of employment in the State, and such sectors must be given due importance to tackle the unemployment problem in the State.

The above discussion clearly shows that fisheries sector is of vital significance to the economy from the point of view of food - supply, foreign exchange earnings and employment opportunities.

Although Kerala boasts of highest quality of life in the country as measured by human development indicators, it is a fact that the State's fishing community has largely been left out of the general development experience. This necessitates a detailed study of the socio-economic problems of fishermen in Kerala, which is going to be discussed in subsequent chapters.

SOCIAL PROBLEMS OF FISMERIMEN IN THE MALABAR REGION

Alavy Kutty P.M. “Socio-economic problems of fishermen in Kerala with special reference to malabar region” Thesis. Department of Commerce and Management Studies , University of Calicut, 2004

CHAPTER III

SOCIAL PROBLEMS OF FISHERMEN IN THE MALABAR REGION

The last chapter revealed the significance of fishing industry in terms of being a source of cheap and protein rich food, employment and income generator, foreign exchange earner etc. Thus, fishing has the potential to make a significant impact on the socio-economic conditions of fishing communities. However, the Fishermen are considered to be one of the socially backward communities.

This chapter provides a brief description of the social problems of the fishermen in the Malabar Region.

Education

TABLE 3.01

Respondents' Educational Level

(Percentages)

District	Illiterate	Primary	Secondary	College	Total
Calicut	27.00	63.00	9.00	1.00	100
Trissur	38.67	56.00	5.33	0.00	100
Malappuram	45.33	48.00	6.00	0.67	100
Kannur	16.00	67.33	16.67	0.00	100
Kasargode	38.00	45.33	16.00	0.67	100
Total	32.63	56.38	10.50	0.50	100

Source: Survey data.

Table 3.01 describes the educational level of the respondents. The data indicate that 32.63 per cent of the total sample respondents are illiterates. The highest percentage of illiterates is in Malappuram (45.33 per cent) followed by Trissur (38.67 per cent) and Kasargode (38 per cent). The Lowest percentage of illiterates is in Kannur district (16 per cent) followed by Calicut (27 per cent).

Of the total respondents, 56.38 per cent have education up to primary level and 10.50 per cent have education up to secondary level. The highest primary educated and secondary educated respondents are from Kannur district (67.33 per cent and 16.67 per cent respectively).

College level education is 0.50 per cent among the respondents. When one per cent of respondents in Calicut have college level education, it is 0.67 per cent each in Malappuram and Kasargode.

Hence the educational level of fishermen is very low. Among the literates, majority has education up to primary level. Higher education is still a distant dream to them.

The level of education of the respondents is also viewed from the angle of nature of family as shown in the following table.

TABLE 3.02

Education of Respondents by Nature of Family

(Percentages)

Nature of Family	Illiterate	Primary	Secondary	College	Total
Nuclear family	29.21	59.74	11.05	0.00	100
Joint family	35.71	53.33	10.00	0.95	100
Total	32.63	56.38	10.50	0.50	100

Source: Survey data.

Table 3.02 reveals that illiterates are more (35.71 per cent) in joint families than in nuclear (29.21 per cent) families. However, 0.95 percent respondents in the joint family has college level education, as against nobody in the nuclear family. Primary and secondary level education of respondents is higher (59.74 per cent and 11.05 per cent) in the nuclear family as against the joint family.

Further, the status of education among the members of the fishermen family has been revealed by the respondents. Table 3.03 shows the level of education of the members of the family.

TABLE 3.03

Educational Level of the Family Members

(Percentages)

Age	Illiterate	Primary	Secondary	College	Other professional education	Total
Less than 06	100.00	0.00	0.00	0.00	0.00	11.27
06-13	0.96	90.30	8.74	0.00	0.00	16.19
13-18	1.36	22.52	73.80	2.31	0.00	14.29
18-22	1.53	35.20	56.80	6.29	0.17	11.40
22-60	15.23	51.11	31.49	2.08	0.09	43.79
Above 60	65.82	32.28	1.90	0.00	0.00	3.06
Total	20.48	45.22	32.29	1.96	0.05	100

Source: Survey data.

The education of the members of the families of the respondents is examined on the basis of the age of the members. Of the total members in the sample region, 11.27 per cent constitute children below the age of 6 years, and they are treated as illiterates though they are attending schools. This is based on the criteria of the population Census of India 2001.

The children between the ages of 6-13 years constitute 16.19 per cent of the total members of the sample household. This age group is considered to be the primary level of education. In this group, 0.96 per cent are illiterates and 8.74 per cent are attending for the secondary education.

Members between the age group of 13-18 years are 14.29 per cent in the sample households. This age group is considered to be the secondary educational level. In this group, 1.36 per cent are illiterates and 22.52 per cent are having primary education. However, there are 2.31 per cent members in this group who are attending the first year of college classes.

The age between 18-22 is treated as the age of graduation. Upon examining the educational level of this group, only 6.29 per cent are having college level education.

The age group between 22-60 is considered to be the main working group among the fisherfolk and 43.79 per cent of the sample members lie in this category. Among this group, 15.23 per cent are illiterates and 51.11 per cent have only primary education.

Members above 60 years of age constitute 3.06 per cent of the sample members, and 65.82 per cent of this group are illiterates. The professionally qualified persons among the fisherfolk are quite negligible since there are only 0.05 per cent professionally qualified persons among the sample household.

Hence, the literacy rate among the fisherfolk is not only low, but their status of education is also hovering around primary and secondary levels.

Since the respondents of the family constitute the age above 22 years, where the percentage of illiteracy is higher than the other group, it is found necessary to examine their attitude towards education. Hence, the respondents were asked the level of education which they want to give their children. Table 3.04 reveals the education that the respondents want to give to their children.

TABLE 3.04

Opinion of Respondents Relating to Education to be Attained by their Children

(Percentages)

Districts	No children	Less than 7th Std.	Complete 10th Std.	Complete Degree	Complete Professional Course	Up to they are ready to study	Total
Calicut	3.00	1.50	33.50	10.50	2.00	49.50	100
Thrissur	4.67	0.67	49.33	3.33	2.00	40.00	100
Malappuram	1.33	2.00	42.67	9.33	0.67	44.00	100
Kannur	2.67	0.00	14.67	0.00	0.00	82.67	100
Kasargode	2.67	2.67	11.33	18.00	5.33	60.00	100
Total	2.88	1.38	30.50	8.38	2.00	54.88	100

Source: Survey data.

Since 2.88 per cent of the respondents have no children, they didn't respond to this question. In Kannur and Kasargode districts 82.67 per cent and 60 per cent respondents respectively want their children to be educated up to the level the children are ready to study. In Trissur district nearly half of the respondents (49.33 per cent) want their children to complete 10th standard.

In Malappuram district also, 42.67 per cent of the respondents want their children to complete 10th standard. There are 18 per cent respondents in Kasargode who have a specific objective that their children should complete degree in colleges as against the respondents in Kannur who have no such specific aim of higher education. Similarly the interest in professional degree is more (5.33 per cent) in the respondents of Kasargode than any other districts. Only 1.38 per cent of the total respondents want education less than 7th standard for their children.

Though 54.88 per cent of the respondents in the sample region want to educate their children up to which the children are ready to study, there are a few children in the fishing community who are not attending the schools. Therefore, the reasons for not attending the schools were also examined, which are shown in Table 3.05.

TABLE 3.05
Reasons for Not Attending School

(Percentages)

Districts	Poverty	Over Importance of Madrassass	Attraction to Fishing	Constant Failure in Classes	Other Reasons	Not Applicable
Calicut	3.50	1.00	4.50	1.50	1.50	88.00
Trissur	0.00	0.00	1.33	0.00	0.67	98.00
Malappuram	3.33	8.00	9.33	0.67	2.00	76.67
Kannur	1.33	0.00	0.00	0.00	2.00	96.67
Kasargode	0.00	0.00	0.00	0.00	0.67	99.33
Total	1.75	1.75	3.13	0.50	1.37	91.50

Source: Survey data

Table 3.05 shows that around 90 per cent of the children are attending schools in all districts except in Malappuram, where 23.33 per cent of the children are not attending school due to poverty (3.33 per cent), over importance to Madrassas (8 per cent), attraction to fishing (9.33 per cent), constant failure in classes (0.67 per cent) and other reasons (2 per cent) like illness and being female members in the family. Most dominating reason for not attending school is attraction to fishing. It was pointed out by the respondents that the children could collect fish worth Rs.10-15 in a day by walking around the landed craft. Hence, it is a source of income to them. Poverty of the respondents is another reason that they could not educate their children. In Calicut 3.50 per cent of children are not attending due to poverty. Hence the attention is diverted towards the traditional fishing job, which is the easiest means of earning their bread.

For the encouragement of education among the fisherfolk children, the State government has been providing financial aid. Besides, there might be agencies providing helps to them. Hence, the sample study revealed that 78.37 per cent of the sample households were getting some sort of aid for the education of their children. While 90 per cent of the households got aid for the education of their children in Malappuram district, only 69.31 per cent of households in Kasargode got assistance for educating their children.

The various agencies from which they availed of assistance for the education of their children are shown in Table 3.06.

TABLE 3.06

Sources of Educational Aid

(Percentages)

Districts	Govern-ment	Govt. & Welfare Fund Board	Govt. & Social/Religious Organisations	Govt. & Welfare Fund Board and Socio/Religious Organisation	No Aids Availed of	Total
Calicut	56.50	1.50	20.00	1.50	20.50	100
Trissur	68.67	0.67	2.67	0.00	28.00	100
Malappuram	84.67	2.00	3.33	0.00	10.00	100
Kannur	80.00	0.00	0.67	0.00	19.33	100
Kasargode	66.00	0.00	3.33	0.00	30.69	100
Total	70.25	0.88	6.89	0.38	21.63	100

Source: Survey Data.

The importance source of aid is the "Fishermen Scholarship' provided by the State Government from the nursery class onwards. This scholarship varies from Rs.50 to Rs.540 per annum. Moreover, a monthly pocket money of Rs.250 is also paid to the fishermen students beyond 10^{th} standard. The sample study shows that 70.25 per cent of the households have got only this fishermen scholarship for their children's education.

Besides Fishermen Scholarship of the Government, the "Fishermen Welfare Fund Board" is also providing scholarship to those students of the

community who secure first or second rank in the S.S.L.C. examination at state or district level among the fishermen students. The Board also provides monthly grant for two years to the rank holders of district and state level for continuing their plus two education. Among the sample households, 2 per cent of households in Malappuram, 1.50 per cent of households in Calicut and 0.67 per cent of households in Trissur have got assistance from Welfare Fund Board for their children's education, besides the State Fishermen Scholarship.

Along with Government's help, 6.89 per cent of sample households got assistance from social and religious organizations. Besides, the fishermen's scholarship of the government, the help of social and religious organization for encouragement of education is the major help to the fishing community. In Calicut district, 20 per cent of the households have got help from social and religious organizations apart from the State scholarship. The role of social and religious organizations for the upliftment of education among the fishing community is quite negligible in Kannur district. In Calicut district, there are 1.50 per cent households who got help from Government, Welfare Fund Board and social and religious organizations.

HEALTH

The health hazards of fishing community in the sample region was analysed and it revealed that 93.50 per cent of the sample households do not

have any serious health problems. However, there are 6.50 per cent households who have some chronic and prolonged illness.

Calicut has the highest percentage (9 per cent) of chronic diseases followed by Kannur (7.33 per cent) and Malappuram (6.67 per cent). Kasargode has the lowest percentage of (2.67 per cent) such prolonged illness.

The various types of illness affected to the households are shown in Table 3.07.

TABLE 3.07

Nature of Illness among the Households

(Percentages)

Districts	CANCER	HEART DISEASES	FILARIA	LUNACY	RHEUMATISM	PARALYSIS	LEPROSY	OTHERS	No Diseases	TOTAL
Calicut	1.00	3.50	0.00	0.50	0.00	0.00	2.00	2.00	91.00	100
Trissur	0.67	1.33	0.67	0.67	1.33	0.67	0.00	0.67	94.00	100
Malappuram	1.33	1.33	0.67	1.33	0.00	0.67	0.00	1.33	93.33	100
Kannur	0.67	1.33	1.33	1.33	0.00	1.33	0.00	1.33	92.67	100
Kasargode	0.00	0.00	0.00	0.00	2.00	0.67	0.00	0.00	97.33	100
Total	0.75	1.63	0.50	0.75	0.63	0.63	0.50	1.13	93.50	100

Source: Survey data

The percentage of chronic diseases is very little among the households. In the sample households, 0.75 per cent has cancer diseases and 1.63 per cent

has heart diseases. The percentage of heart patients (3.50 per cent) is more among the households of Calicut than other districts. Filaria was reported from all districts except from Calicut and Kasargode. The percentage of lunacy is more in Malappuram and Kannur than in Calicut and Trissur. Rheumatism and paralysis are the two diseases reported from Kasargode. Leprosy among fisherfolk is found only in 2 per cent of households in Calicut district. The other diseases include T.B, Polio, kidney diseases, asthma, etc.

Though 6.5 per cent of households in the sample region are subjected to various chronic diseases, 32.69 per cent of them are not getting any treatment for the diseases. Table 3.08 shows whether there is medical treatment for the diseases or not.

TABLE 3.08

Medical Treatment

(Percentages)

District	Yes	No	Total
Calicut	66.67	33.33	100
Trissur	55.55	44.45	100
Malappuram	90.00	10.00	100
Kannur	72.73	27.27	100
Kasargode	25.00	75.00	100
Total	67.31	32.69	100

Source: Survey data.

While 75 per cent of the households affected by various diseases in Kasargode district have no treatment for their diseases, it is only 10 per cent in Malappuram who are having no treatment for their diseases. In Calicut, 33.33 per cent of the households have no treatment for their diseases whereas in Trissur district 55.55 per cent have treatment for their diseases.

TABLE 3.09

Reasons for Lack of Treatment

(Percentages)

District	Poverty	Incurable	Total
Calicut	33.33	66.67	100
Trissur	75.00	25.00	100
Malappuram	100.00	0.00	100
Kannur	100.00	0.00	100
Kasargode	33.33	66.67	100
Total	58.82	41.18	100

Source: Survey data.

The major reason for lack of treatment in the region is poverty. In Malappuram and Kannur district poverty is the only reason for lack of treatment as against Calicut and Kasargode, where the two-third of the affected have no treatment since the diseases being incurable, while in Trissur district 75 per cent of the diseases are not treated due to poverty.

Further, those who are having treatment for their diseases are getting some sort of financial aid for their treatment from various sources. The

sample study reveals that 13.46 per cent of those having treatment for their diseases are getting financial aid. In Kasargode district, none of them are getting any financial aid for their treatment as against Malappuram where only 0.09 per cent is getting the financial aid.

The various sources of financial aid for the treatment are shown in Table 3.10.

TABLE 3.10

Sources of Financial Aid for Treatment

(Percentages)

District	Government	Fishermen's Welfare Fund Board	Religious Organisations	Total
Calicut	50.00	0.00	50.00	100
Trissur	50.00	50.00	0.00	100
Malappuram	0.00	0.00	100.00	100
Kannur	0.00	100.00	0.00	100
Kasargode	0.00	0.00	0.00	0.00
Total	28.57	28.57	42.86	100

Source: Survey data.

The major source of financial aid for the treatment of diseases is from the religious organizations. The above table shows that while 42.86 per cent of financial aid is from religious organizations, the role of government and the Welfare Fund Board is 28.57 per cent each. In Calicut district, of the total financial aid, 50 per cent each is received from the government and religious

organizations as against Trissur where 50 per cent each of the financial aid received is from government and the Welfare Fund Board. In Kannur, the entire financial aid is from the Welfare Fund Board as against Malappuram where the whole aid for treatment of diseases received by the households are from religious organizations.

SANITATION

Sanitation is an important indicator to analyse the social conditions of fishermen. Of the total sample households, 22.13 per cent do not have any latrine facility. Instead, the fishermen use the seashore, where the fish landings take place, for their toilet purposes. It makes the coast unhygienic. It also affects adversely the environment for landing of fish. The Table 3.11 shows the latrine facilities of the households in the sample region.

TABLE 3.11

Latrine Facilities of the Households

(Percentages)

District	No Toilet	Own Toilet	Total
Calicut	16.50	83.50	100
Trissur	35.33	64.67	100
Malappuram	15.33	84.67	100
Kannur	27.33	72.67	100
Kasargode	18.00	82.00	100
Total	22.13	77.88	100

Source: Survey data.

The above table shows that 35.33 per cent of households in Trissur and 27.33 per cent of households in Kannur do not have toilet facilities and they depend on the seashore for toilet purposes. In all other districts, more than 80 per cent of the households have their own toilet facilities. The highest percentage of households having toilet facility is in Malappuram district (84.67 per cent) followed by Calicut (83.50 per cent), and Kasargode (82 per cent) districts.

When the facility of toilet is viewed from the angle of nature of family, it is seen that 27.37 per cent of nuclear households use open air for toilet purpose, while in joint family 17.38 per cent do not have own toilet and sea beach is used for that purpose.

There are various schemes for providing financial assistance to the fishing community for toilet construction. Hence, the households who have own toilet were asked whether they had received any financial aid for toilet construction. Table 3.12 shows the financial aid received for toilet construction.

TABLE 3.12

Financial Aid for Toilet Construction

(Percentages)

District	Yes	No	Total
Calicut	25.15	74.85	100
Trissur	79.38	20.62	100
Malappuram	46.46	53.54	100
Kannur	40.37	59.63	100
Kasargode	38.21	61.79	100
Total	43.18	56.82	100

Source: Survey data

Of the total sample households who have toilet facility, only 43.18 per cent have received some sort of financial aid for toilet construction. The above table shows that 79.38 per cent of the households in Trissur district received financial aid for toilet construction as against 25.15 per cent households in Calicut district. In all other three districts, more than 50 per cent of the households have not received any aid for toilet construction.

There are various agencies providing financial assistance for toilet construction. Initially, the Fisheries Department of the State Government was extending financial aid for toilet construction. Besides, the fishermen's Welfare Fund Board had provided cash assistance of Rs.2500 for toilet construction in two instalments of Rs.1500 and Rs.1000 each. However, since the implementation of People's Plan Programme in the State, the

assistance of the Fisheries Department and Welfare Fund Board have been shifted to the Local Bodies like Panchayat, Muncipalities and Corporations. Table 3.13 reveals the assistance received by the households for their toilet construction from various sources.

TABLE 3.13

Sources of Assistance for Toilet Construction

(Percentages)

District	Govt.	Fishermen's Welfare Fund Board	Local Bodies	Total
Calicut	52.38	4.76	42.86	100
Trissur	3.90	0.00	96.10	100
Malappuram	11.86	1.70	86.44	100
Kannur	6.82	18.18	75.00	100
Kasargode	6.38	6.38	87.24	100
Total	14.13	5.20	80.67	100

Source: Survey Data

The above table reveals that 80.67 per cent of assistance for toilet-construction was from local bodies. However, the district-wise distribution of sources of assistance indicates that in Calicut district, the assistance from the Fisheries Department of the Government is (52.38 per cent) higher than the assistance of the Local bodies (42.86 per cent) in the district. The highest percentage of the assistance from local bodies is received by the households in Trissur district (96.10 per cent) and the lowest contribution of assistance by

the Fisheries Department of the Government and the Welfare Fund Board is also in Trissur district. Hence, it is found that the task of implementing the plan programmes prepared by the local bodies connected with decentralized planning under Peoples Plan Programme is effective. It has enabled to provide assistance to fishermen to meet their basic social need to a greater extend.

DRAINAGE

Another important factor that affects the quality of life of the fisherfolk is drainage facilities. Like deplorable sanitation conditions, drainage facilities are also poor. Table 3.14 reveals the drainage facility in the sample area. In the sample region, only 16.63 per cent households have drainage facility. The highest percentage of households having drainage is in Calicut (26.50 per cent) followed by Kasargode (22.67 per cent) district. In Trissur, 0.67 per cent households have drainage facility. This indicates the deplorable drainage condition prevailing in the fishing community. Lack of drainage coupled with the open-beach toilet causes misery to the fisherfolk.

TABLE 3.14

Households' Drainage Facility

(Percentages)

Districts	Yes	No	Total
Calicut	26.50	73.50	100
Trissur	0.67	99.33	100
Malappuram	18.00	82.00	100
Kannur	12.00	88.00	100
Kasargode	22.67	77.37	100
Total	16.63	83.37	100

Source: Survey data

Upon examining the agency providing the drainage facilities, Table 3.15 shows that 51.13 per cent of households have drainages of their own. The drainage provision of government is mainly concentrated in Calicut (83.02 per cent), Malappuram (62.96 per cent) and Kasargode (8.82 per cent). The entire households of Trissur and Kannur claim that their drainage is provided by themselves. However, in Calicut district 1.89 per cent of households have the drainage constructed by a religious organization. Lack of enthusiasm on the part of government in the drainage provision is a major cause for poor drainage facilities of the fishermen.

TABLE 3.15

Agency Providing Drainage Facilities

(Percentages)

Districts	Own	Government	Religious Organisation	Total
Calicut	15.09	83.02	1.89	100
Trissur	100.00	0.00	0.00	100
Malappuram	37.04	62.96	0.00	100
Kannur	100.00	0.00	0.00	100
Kasargode	91.18	8.82	0.00	100
Total	51.13	48.12	0.75	100

Source: Survey data.

DRINKING WATER

The sample study revealed that 30.63 per cent of households have scarcity of drinking water in the region. In Kannur district 77.33 per cent of households have scarcity of drinking water. Kannur district have the acute scarcity of water followed by Calicut (31 per cent). Only 14 per cent of households in Malappuram and 14.67 per cent households in Trissur have scarcity of water.

The sources of drinking water of the households are shown in Table 3.16.

TABLE 3.16

Sources of Drinking Water

(Percentages)

Districts	Own Well	Public Well	Own Tap	Public Tap	Neighbour's Well	Own well & Public Tap	Other sources	Total
Calicut	32.00	9.00	2.50	47.50	1.50	4.00	3.50	100
Trissur	85.33	0.00	0.00	2.67	9.33	2.67	0.00	100
Malappuram	56.00	2.00	0.67	14.67	0.00	23.33	3.33	100
Kannur	16.67	15.33	9.33	56.00	0.00	1.33	1.33	100
Kasargode	54.67	16.00	20.00	8.00	0.00	0.67	0.67	100
Total	47.88	8.50	6.25	27.13	2.13	6.25	1.86	100

Source: Survey data.

Wells and Public taps are the main sources of drinking water in the sample region. The sample study revealed that in Kannur district, the scarcity of drinking water is highest where 56 per cent households depend upon public tap for drinking water and 15.33 per cent of households in the district use public well for water. Only 16.67 per cent of households in Kannur rely on their own wells for drinking water. In Calicut also, 47.50 per cent take water from public tap, where the scarcity of water is 31 per cent.

In Malappuram district, 56 per cent households have own well and 23.33 per cent households have own well and public tap for drinking water. Hence, only 14 per cent households in the district reported that they had

scarcity of drinking water. Moreover, 14.67 per cent of households rely entirely own public tap for their drinking purposes.

In Trissur district, 85.33 per cent have their own well for drinking water, 9.33 per cent of households rely on neighbours' well and 2.67 per cent depend on public tap for drinking water. In Trissur, only 14.67 per cent households reported that they had scarcity of water.

Hence, it is found that the higher the percentage of households depend on well, instead of public tap and neighbour's well, the lower will be the scarcity of water. Thus, the scarcity of drinking water in the districts may be due to mal-functioning of public water taps or inadequate supply of public water in proportion to the demand on account of various reasons such as lack of water in rivers, power failures, etc.

In the sample region 6.25 per cent have direct tap water supply. Other sources of water include combination of own well and public well, own tap and own well, public well and own tap, own tap and public tap etc. for drinking water.

HOUSING

The sample study shows that in all districts except Kasargode, more than 98 per cent of the households live in their own houses. But, in Kasargode district 11.33 per cent of households live in rented houses.

Even a casual observer of the coastline of the region is struck by the poor housing conditions of the fishing communities. Fishermen's compulsion to stay as close as possible to the sea makes for clustering settlement patterns. Some of the houses are prone to erosion by the monsoon sea due to poor housing structures. The Table 3.17 reveals that 30 per cent of the households live in thatched huts. Some of the families in huts have both thatched walls and roofs.

TABLE 3.17

Type of House

(Percentages)

Districts	Thatched	Tiled	Terraced	Partly Terraced	Total
Calicut	23.00	50.50	23.00	3.50	100
Trissur	74.00	24.00	0.67	1.33	100
Malappuram	23.33	59.33	14.00	3.33	100
Kannur	9.33	51.33	22.00	17.33	100
Kasargode	22.67	53.33	17.33	6.67	100
Total	30.00	47.88	15.88	6.25	100

Source: Survey data.

The highest percentage of households living in thatched huts is in Trissur district (74 per cent). In all districts more than 50 per cent of households live in tiled houses except in Trissur district where only 24 per cent of households live in tiled houses. Similarly, the lowest percentage of terraced houses (0.67 per cent) of fisherfolk is in Trissur district. Calicut district has the highest percentage of terraced houses (23 per cent) followed

by Kannur (22 per cent) and Malappuram (14 per cent). Partly terraced households are more in Kannur (17.33 per cent) than in any other districts.

When the type of house of the sample households are viewed from the angle of nature of family, Table 3.18 shows that thatched huts are more in nuclear families (36.58 per cent) than in joint families (24.05 per cent). However, nuclear family dominates (17.37 per cent) over joint family (14.52) in the case of terraced buildings. Households with tiled and partly terraced houses are more in joint families than in nuclear families.

TABLE 3.18

Type of House Based on Nature of Family

(Percentages)

Nature of Family	Thatched	Tiled	Terraced	Partly Terraced	Total
Nuclear	36.58	42.63	17.37	3.42	100
Joint	24.05	52.62	14.52	8.81	100
Total	30.00	47.88	15.88	6.25	100

Source: Survey data.

The nature of work of the fishermen compels them to stay very close to the sea. This clustering settlement pattern limits the extent of land occupied by them. The sample study shows that 47.80 per cent of the households have a land area of less than 5 cents for their owned houses. Table 3.19 reveals the extent of the land in which the owned house is built.

TABLE 3.19

Land Area of the Owned House

(Percentages)

Districts	Less than 5 cents	5-10 cents	10-15 cents	15-20 cents	20-25 cents	Above 25 cents	Total
Calicut	63.13	22.73	6.06	4.54	2.52	1.01	100
Trissur	25.00	36.49	14.19	7.43	9.46	7.43	100
Malappuram	47.97	41.22	5.40	2.03	2.03	1.35	100
Kannur	55.78	27.89	8.16	6.12	1.36	0.68	100
Kasargode	41.35	40.60	11.28	4.51	0.75	1.50	100
Total	47.80	32.95	8.78	4.91	3.23	2.33	100

Source: Survey data

The above table shows that in Calicut district, 63.13 per cent of households have a land area of less than 5 cents, while in Trissur 75 per cent of households have a land area of more than 5 cents. Moreover, Trissur has the highest percentage of households (7.43 per cent) having a land area of above 25 cents. It should also be noted that 80.75 per cent of the households in the region, who have owned houses, have an area of land upto 10 cents. It shows the deplorable land occupancy of the fisherfolk in the region.

The sample study also revealed that many of the households do not have the title deeds for the land occupied and hence they live in 'Puramboke' (the land which belong to the public authority).

Further, 52.13 per cent of the households in the sample region have less than 3 rooms for their houses. While 43.38 per cent have 3-5 rooms and

4.50 per cent have more than five rooms for their houses in the sample region. Table 3.20 shows the distribution showing the number of rooms for the houses in the sample region.

TABLE 3.20

Numbers of Rooms for Houses

(Percentages)

Districts	Less than 3 Rooms	3-5 Rooms	Above 5 Rooms	Total
Calicut	63.00	33.00	4.00	100
Trissur	46.00	46.00	8.00	100
Malappuram	42.67	54.67	2.67	100
Kannur	50.00	48.67	1.33	100
Kasargode	55.33	38.00	6.67	100
Total	52.13	43.38	4.50	100

Source: Survey data.

In Calicut district, 63 per cent of fishermen houses have rooms less than 3, while in Kasargode 55.33 per cent of houses have rooms less than 3. In Kannur, 50 per cent of the houses are having rooms less than 3. In Malappuram district, 54.67 per cent of houses have rooms of between 3 to 5 for their houses. In Trissur, 8 per cent of fishermen houses have rooms more than 5.

In order to examine whether the houses are over occupied or not, it is necessary to analyse the number of persons living in each house. Table 3.21 reveals the number of persons living in these houses.

TABLE 3.21

Number of Persons Living in Houses

(Percentages)

Number of Rooms	Less than 5 persons	5-10 Persons	10-15 Persons	15-20 Persons	Above 20 persons	Total
Less than 3 Rooms	25.90	61.87	11.27	0.72	0.24	100
3-5 Rooms	12.10	55.04	25.36	6.34	1.15	100
Above 5 Rooms	5.56	44.44	30.56	13.89	5.56	100
Total	19.00	58.13	18.25	3.75	0.88	100

Source: Survey data.

As stated earlier, 52.13 per cent of houses have less than 3 rooms in the sample region. In these houses, 61.87 per cent have 5-10 persons, 11.27 per cent have 10-15 persons, 0.72 per cent has 15-20 persons and 0.24 per cent has above 20 persons. Even in a house of 3-5 rooms, 25.36 per cent have occupancy of 10-15 persons, 6.34 per cent have 15-20 persons and 1.15 per cent have above 20 persons. Hence, it is found that fishermen houses are over crowded.

The sample study further revealed that 33.20 per cent of the households are living in their inherited houses, and remaining 66.80 per cent owned-houses are constructed by the households themselves.

Since there have been several housing schemes implemented by the government for construction of houses to the fishing community, it is found

necessary to examine whether the households had ever received any assistance from the government for house construction. Hence, the various sources of funds mobilized for the construction of houses are shown in Table 3.22.

TABLE 3.22

Sources of Funds for House Construction

(Percentages)

Districts	With savings	Govt. Aid	Loan from Banks	Loan from Friends and Relatives	Savings + loan from Friends	Govt. Aid + Loan from Banks	Govt. Aid + Loans from friends	Bank Loan + Loan from friends	Other sources	Total
Calicut	31.78	22.48	2.33	3.10	4.65	10.85	6.20	10.85	7.75	100
Trissur	24.24	9.85	6.06	22.73	11.36	3.79	5.30	9.85	6.82	100
Malappuram	30.11	3.23	3.23	2.15	9.68	11.83	12.90	16.13	10.75	100
Kannur	9.68	10.75	10.75	7.53	8.60	15.06	3.23	21.50	12.90	100
Kasargode	37.14	2.86	18.57	1.43	4.29	7.14	1.43	18.57	8.58	100
Total	26.31	11.03	7.16	8.51	7.93	9.48	6.00	14.50	9.09	100

Source: Survey data.

The above table shows that 11.03 per cent of houses were constructed exclusively with government aid, 9.48 per cent of houses were constructed with government aid and loan from banks, and 6 per cent houses were constructed with government aid and loan from friends and relatives. Hence altogether, 26.51 per cent of the houses were constructed by the household with the help of the assistance from the government.

Calicut ranks first in receipt of government aid for house construction since 39.53 per cent of households received funds for house construction.

Kannur ranks second in receipt of government aid for house construction where 29.04 per cent of the houses were constructed with government aid. On the other hand, in Kasargode district, only 11.43 per cent of the houses were constructed with government aid.

"Other sources" of funds for the house construction include loan from private moneylenders, houses constructed by Christian missionary, savings plus loan from banks etc.

Another basic amenity related to housing is electric lighting. The sample study shows that 38.50 per cent of the households have no electricity. The Table 3.23 reveals the electrification of houses in the region.

TABLE 3.23

Electrified Houses

(Percentages)

Districts	Not Electrified	Electrified	Total
Calicut	36.50	63.50	100
Trissur	85.33	14.67	100
Malappuram	32.67	67.33	100
Kannur	6.67	93.33	100
Kasargode	32.00	68.00	100
Total	38.50	61.50	100

Source: Survey data.

In all districts, majority of the houses are electrified except in Trissur district where 85.33 per cent of houses have no electricity. The highest

percentage of electrified houses is in Kannur (93.33 per cent) followed by Kasargode (68 per cent). The lowest percentage of electrified houses is in Trissur (14.67 per cent) and Calicut (63.50 per cent).

Though, the Government of Kerala have been implementing "Theerajyothi" for electrifying the houses of fishermen, still the electric lighting is a distant dream to the fishing community.

The standard of living of a community, to a great extent, depends upon the household articles they possess. Hence, it is noteworthy to examine the durables that the households have in their houses. In the sample region, 28.63 per cent do not have the household durables. In Kannur district, 90 per cent of households have various durables as against Trissur where only 52.67 per cent have household articles. Table 3.24 shows the various articles possessed by the households in the region.

TABLE 3.24
House hold Articles

(Percentages)

Districts	Radio/Two-in one	T.V	Radio + T.V	Radio + T.V. + Tele-phone	T.V. + Refrigerator + Tele-phone	Radio + T.V. + Refri-gerator	Radio + Tele-phone	Radio + Refri-gerator	Other Articles	No Articles
Calicut	31.50	8.50	17.50	1.00	2.00	2.00	0.50	1.00	1.00	35.00
Trissur	48.67	0.00	0.00	0.00	0.00	0.00	2.67	0.00	1.33	47.33
Malappuram	51.33	0.00	6.00	2.00	0.00	0.00	2.00	0.67	0.00	38.00
Kannur	28.67	16.67	25.33	8.00	1.33	6.00	0.67	2.67	0.67	10.00
Kasargode	44.00	5.33	23.33	4.00	6.67	0.67	0.67	0.67	4.00	10.67
Total	40.25	6.25	14.63	2.88	2.00	1.75	1.25	1.00	1.38	28.63

Source: Survey data.

The most common item is the portable radio or radio-cum-tape recorder. In the sample region, 40.25 per cent of the households have radio or two-in-one only.

Certain items like T.V., refrigerator, telephone, which are commonly found in the ordinary class homes are uncommon in the fishing homes. T.V is not at all found in the sample houses of Trissur district. However, 27.51 per cent of the households have T.V., either alone or in combination with radio or radio and telephone or refrigerator and telephone or refrigerator and radio. In Malappuram district, only 8 per cent of the households have T.V. The combination of T.V., refrigerator and telephone could be seen only in 2 per cent of the houses in the samples region. However, this combination is not at all found in any house in the Malappuram and Trissur districts.

Besides the above articles like radio, T.V., refrigerator, telephone, there are some other items like two wheelers, auto rickshaws, which are grouped under "other articles". On an average 1.38 per cent of households in the region have such other articles.

In fishing community telephone and refrigerator are considered to be luxurious and just about 8.88 per cent are privileged to own them in the sample region.

RECREATION

Fishermen are actually engaged in fishing while they are in the sea. They have a lot of time at their leisure when they are back at home. Hence, it is found necessary to examine how they spend their leisure time. Table 3.25 shows the leisure time spent by the fishermen.

TABLE 3.25

Pattern of Leisure Time Spending

(Percentages)

Districts	Net Re-pairing	Net Repairing + House-hold work	Net Repairing + House-hold work + Chit-chatting	Net Repairing + Playing cards	Net Repairing + Watching TV/movie + Playing cards	Net Repairing + Reading + Watching TV/Movie	Net Repairing + Household work + Watching TV/Movie	Net repairing + House-hold work + Watching TV + Chit-chatting	Other combina-tions	Total
Calicut	2.00	6.50	0.50	10.50	18.50	16.50	0.50	1.50	43.50	100
Trissur	6.67	12.00	25.33	36.67	5.33	1.33	2.00	2.00	8.67	100
Malappuram	0.00	1.33	34.67	3.33	4.67	16.00	2.00	16.00	22.00	100
Kannur	0.00	24.00	8.67	0.00	0.00	0.67	32.67	8.00	26.00	100
Kasargode	6.00	12.67	6.67	9.33	8.00	1.33	2.67	9.33	44.00	100
Total	2.88	11.00	14.25	11.88	8.00	7.75	7.50	7.00	29.73	100

Source: Survey data.

The above table reveals that during leisure hours fishermen are mainly engaged in repairing nets, because the nets are prone to damage while fishing and that is a common hazard of the occupation. On average, 2.88 per cent of the fishermen are only engaged in net repairing during leisure hours. But, in Malappuram and Trissur districts, they are engaged in various activities along

with net repairing. In the sample region, along with net repairing, card playing dominates in Trissur district during leisure hours. Though reading is not so popular among the fisherfolk, watching TV or movie is popular among the fishermen.

In the sample region 29.73 per cent are engaged in other activities which are the various combinations of net repairing, household work, chit-chatting, watching TV etc.

SOCIAL ACTIVITIES

It is a belief that fishing community is an isolated group from the main stream of the society. They are busy with their occupation and remain away from the society. In order to examine their relationship with other members of the society, it is helpful to analyse the social activities of the fishermen. Table 3.26 reveals the role of fishermen in various social activities like political, religious, cultural and educational field.

TABLE 3.26
Social Activities

(Percentages)

Districts	Political Organisations		Religious Organisations		Cultural Organisations		Educational Institutions	
	Yes	No	Yes	No	Yes	No	Yes	No
Calicut	45.50	54.50	22.00	78.00	6.00	94.00	2.50	97.50
Trissur	82.67	17.33	18.67	81.33	3.33	96.67	2.67	97.33
Malappuram	77.33	22.67	62.67	37.33	4.00	96.00	6.67	93.33
Kannur	32.00	68.00	18.00	82.00	12.67	87.33	0.67	99.33
Kasargode	58.00	42.00	32.00	68.00	5.33	94.67	0.00	100
Total	60.50	39.50	30.13	69.87	6.25	83.75	2.50	97.50

Source: Survey data.

The above table shows that on an average 60.50 per cent of the respondents have connections with some political parties. Majority of the respondents in Trissur (82.67 per cent), Malappuram (77.33 per cent), and Kasargode (58 per cent) are either members or well-wishers of their respective political organizations.

Though the respondents belong to various religions, 69.87 per cent of the respondents in the sample region have no connection with any religious organization. However, in Malappuram district, 62.67 per cent of the respondents belong to various religious organizations in the district.

The role of fisherfolk in various cultural activities is marginal, since 83.75 per cent of the respondents in the sample region have no connection with any cultural organization. The highest percentage of the respondents participating in any cultural activity is in Kannur district (12.67 per cent). The lowest percentage of fisherfolk engaged in cultural activities is in Trissur district (3.33 per cent) which is the cultural capital of Kerala.

The role of fishermen in the organization and working in any educational institution is very little. In Malappuram district, 6.67 per cent of the respondents are actively taking part in the educational activities. None of the respondents in Kasargode has any connection with the activities of educational institutions. In short, 97.50 per cent of the respondents in the sample region are not participating in any educational activities connected

with the educational institutions. It is a clear indicator of the attitude of the fishermen towards education.

Attitude Towards the Job

Since fishermen are considered to be one of the socially disadvantaged groups, the respondents have been asked whether they want to continue this occupation or not, inorder to examine their attitude towards the job. Table 3.27 shows their attitude towards the job.

TABLE 3.27

Attitude Towards the Job

(Percentages)

Districts	Continue the Job	Not continue the Job	Total
Calicut	85.50	14.50	100
Trissur	51.33	48.67	100
Malappuram	80.67	19.33	100
Kannur	96.00	4.00	100
Kasargode	65.33	34.67	100
Total	76.38	23.62	100

Source: Survey data.

The above table shows that 76.38 per cent of the respondents want to continue this occupation as against 23.62 per cent of the respondents who do not want to continue in this job. The highest percentage of the respondents

who want to continue this job is in Kannur (96 per cent) and the lowest percentage is in Trissur (51.33 per cent).

The reasons for continuing the job as revealed by the respondents in the sample region are shown in Table 3.28.

TABLE 3.28

Reasons for Continuing the Fishing Occupation

(Percentages)

Districts	No Alternative Job	Attraction to Fishing	Only knows Fishing	Debt to the Owner	Total
Calicut	89.47	8.77	1.75	0.00	100
Trissur	74.03	15.58	2.60	7.79	100
Malappuram	86.78	13.22	0.00	0.00	100
Kannur	89.58	10.42	0.00	0.00	100
Kasargode	40.82	59.18	0.00	0.00	100
Total	79.21	18.99	0.82	0.98	100

Source: Survey data.

As stated earlier, 76.38 per cent of the total respondents want to continue this occupation. But, the most important reason for their continuance is no alternative job is available to them. Out of the respondents who want to continue this job, 79.21 per cent stick on this field only because no other alternative job is available to them. Only 19 per cent consider attraction to fishing as the reason for continuing this occupation. However, in Kasargode district, 59.18 per cent consider attraction to fishing as the reason

for continuing in fishing. In Trissur district, 7.79 per cent want to do fishing due to their indebtedness to the owner of fishing equipments.

There are 23.62 per cent respondents in the sample region who do not want to continue this occupation due to various reasons. Table 3.29 shows the various reasons that make them not to continue this occupation.

TABLE 3.29

Reasons for Not to Continue Fishing Occupation

(Percentages)

Districts	In-sufficient Income	Ill health	Stre-nuous & Risky job	Insufficient income + Ill health	Insufficient Income + Risky job	Total
Calicut	75.86	0.00	6.90	3.45	13.80	100
Trissur	78.08	10.96	1.37	6.84	2.74	100
Malappuram	68.97	0.00	13.79	13.79	3.45	100
Kannur	50.00	50.00	0.00	0.00	0.00	100
Kasargode	96.15	0.00	1.92	1.92	0.00	100
Total	80.42	5.82	4.23	5.82	3.70	100

Source: Survey data

The major reason that the respondents do not want to continue this occupation is the insufficient income from fishing. In the sample area, 80.42 per cent consider insufficient income as the cause for non-continuance in this job. However, 5.82 per cent do not want to continue fishing due to ill health and 4.23 consider it as a risky and strenuous job and hence they do not want to continue this job. There are 5.82 per cent respondents who do not want to

do fishing due to ill health and insufficient income and another 3.70 per cent do not want to remain in fishing due to insufficient income and risk in this field. Another striking feature observed is that in Kannur, 50 per cent of respondents consider ill health as the constraint to continue in fishing while the other 50 per cent consider income from fishing is not sufficient for their livelihood.

In short, majority of the respondents are not satisfied with their fishing job. Even those who want to remain in fishing are going for fishing since no alternative job is available to them. Hence they are not satisfied with their occupation.

Further, to study what occupation the future generation of the fishermen want to continue, the respondents were asked to state the occupation that their children want to follow. Only 10.88 per cent of the total respondents suggested fishing job for their children. This also shows their attitude towards fishing. Table 3.30 shows the types of occupation suggested by the respondents to their children.

TABLE 3.30

Occupation Suggested by the Respondents to their Children

(Percentages)

Districts	Fishing	Govt. Job	Busi-ness	Gulf Job	Children's Like	Not Fishing	Other jobs	Total
Calicut	18.00	17.50	7.50	4.50	15.00	18.00	19.50	100
Trissur	5.33	0.67	4.67	1.33	26.67	56.00	5.33	100
Malappuram	8.67	10.67	2.67	24.00	26.00	19.33	8.67	100
Kannur	10.67	50.67	4.00	6.67	5.33	15.33	7.33	100
Kasargode	9.33	27.33	12.00	36.67	6.00	4.00	4.67	100
Total	10.88	21.13	6.25	14.00	15.75	22.25	9.75	100

Source: *Survey data*

When 10.88 per cent of the respondents in the region suggested that their children should follow fishing, 22.25 per cent outrightly suggested any job for their children other than fishing. There are 15.75 per cent respondents who do not have any suggestion of job for their children and left the children to choose the job they like.

In Calicut when 18 per cent suggested fishing for their children, another 18 per cent outrightly rejected fishing for them. In Trissur district, 56 per cent of the respondents strongly rejected fishing for their children.

The highest percentage of respondents who suggested government job for their children is in Kannur (50.67 per cent) followed by Kasargode (27.33 per cent). The respondents in Trissur give least importance to government job (0.67 per cent).

Only 6.25 per cent of respondents in the region suggested business for their children. When 12 per cent of respondents in Kasargode suggested business for their children, it was 2.67 per cent in Malappuram.

Gulf job is highly preferred in Kasargode (36.67 per cent) and Malappuram (24 per cent) districts.

There are 9.75 per cent respondents who suggested certain miscellaneous jobs like Coolie, driving, retailing, salesman etc. to be followed by their children which are grouped under "other jobs."

Hence, it is found that majority of the respondents in the region do not want their children to follow their traditional fishing. Due to various socio-economic problems, fishermen didn't suggest their community occupation for their future generation.

The foregoing discussion in the previous pages revealed their social problems. Their economic problems are to be discussed in the next chapter.

ECONOMIC PROBLEMS OF FISHERMEN IN THE MALABAR REGION

Alavy Kutty P.M. “Socio-economic problems of fishermen in Kerala with special reference to malabar region” Thesis. Department of Commerce and Management Studies , University of Calicut, 2004

CHAPTER IV
ECONOMIC PROBLEMS OF FISHERMEN IN THE MALABAR REGION

Having reviewed the social problems of fishermen in the previous chapter, now it is sought to examine their economic problems. This chapter deals with the ownership of crafts and gear, the income, expenditure, savings, debt, etc. of the fishermen to analyse their economic problems.

Method of Fishing

For an efficient fishing operation, there is a need for a combination of craft and gear. The craft is important in that it is used to take the fishermen to the fishing ground. The gear (nets) is what actually catches the fish. The size, strength and form of gear, to a large extent, determine the type and size of the fish that will be caught by using it. The fishing craft becomes a full-fledged unit when it is equipped with fishing gear.

The fishing crafts generally found in the sample region are classified into four categories. They are (a) country craft (b) motorized small craft (c) motorized large craft (d) mechanical boat.

Country craft is a traditional craft driven by sails and muscle power with a length of 15-18 feet. This type of crafts are called 'Toni' in Malabar.

Normally one or two persons are going for fishing in this type of craft. These are non-motorised craft.

The motorized crafts are dugout canoes or plank built canoes or plywood canoes or fibre vallam fitted with Out Board Motors (OBM). There are two types of motorized craft, viz., small (OBM) craft and large (OBM) craft or "chundanvallam". Small (OBM) craft has a length of 22-28 feet and fitted with 8 HP/10 HP OBM. Normally 3-5 persons go for fishing in this type of craft. Large (OBM) craft has an average length of 60 feet fitted with 2-3 OBM engines of 25 HP or 2-3 OBM engines of 40 HP. Normally 30-40 persons go for fishing in this type of craft.

Mechanical boats have a length of upto 40 feet. Normally 5-7 persons go for fishing.

In the sample region the fishermen utilize the above types of crafts for fishing. The method of fishing adopted by the respondents in the sample region is shown in Table 4.01.

TABLE 4.01
Method of Fishing

(Percentages)

Districts	Country craft	Small (OBM) craft	Large (OBM) craft	Mechanical Boat	Others	Total
Calicut	39.00	27.00	18.50	13.50	2.00	100
Trissur	18.67	14.00	66.00	0.67	0.67	100
Malappuram	5.33	56.00	22.67	16.00	0.00	100
Kannur	41.33	38.67	8.00	2.67	9.33	100
Kasargode	38.67	40.67	15.33	4.00	1.33	100
Total	29.25	34.75	25.63	7.75	2.62	100

Source: Survey data

The above table shows that the most common method of fishing is by using motorized crafts. Of the total respondents in the region, 34.75 per cent use small (OBM) craft for fishing, while 25.63 per cent use large (OBM) craft for fishing. Altogether 60.38 per cent of the respondents adopt motorized method of fishing.

In Malappuram district, 56 per cent of the respondents use small (OBM) craft for their fishing as against Trissur district, where only 14 per cent of the respondents depend on small (OBM) craft for fishing. However, 66 per cent of the respondents in Trissur depend entirely on large (OBM) craft for their fishing. Hence, Trissur district dominates (80 per cent) over other districts in the use of motorized crafts.

The traditional method of fishing prevailing in this sector was using country crafts. Only 29.25 per cent of the respondents depend on this method of fishing. Kannur has the highest percentage of respondents (41.33 per cent) followed by Calicut (39 per cent) who use country craft for fishing.

Fishing with mechanical boat is not so common among the fishermen in this region. On an average 7.75 per cent of the respondents use the boat for fishing in this region. In Malappuram district, 16 per cent of the sample respondents use mechanical boat for fishing.

The above table reveals that 97.38 per cent of the respondents stick on to a single type of craft for their fishing. While there are 2.62 per cent respondents in the region who are using more than one type of craft for their fishing and they are grouped as "Others".

The economic conditions of the fishermen largely depend upon the fishing assets they own and occupy. Hence, the ownership of the crafts and gears they used for fishing are shown in Table 4.02. On an average 20.38 per cent of the respondents are owners of craft and gear while 11.13 per cent of the respondents own the equipment in partnership. Thus, majority of the respondents are not owners of fishing equipment and are working as labourers or on lease as shown in the Table 4.02 below.

TABLE 4.02
Ownership of Craft and Gear

(Percentages)

Districts	Owners	Partners	Labourers	On Rent	Total
Calicut	17.50	13.50	69.00	0.00	100
Trissur	7.33	5.33	87.33	0.00	100
Malappuram	25.33	16.00	58.67	0.00	100
Kannur	24.00	13.33	60.67	2.00	100
Kasargode	28.67	6.67	63.33	1.33	100
Total	20.38	11.13	67.88	0.63	100

Source: Survey data.

It is clear from the above table that 67.88 per cent of the respondents are not owners of crafts and gear and they work as labourers. There are 0.63 per cent respondents who have taken the fishing equipment on lease. The highest percentage of labour respondents (87.33 per cent) is in Trissur district. Hence, the lowest percentage of owners (7.33) and partners (5.33) are also seen in Trissur district. In Malappuram district, 25.33 per cent of the sample respondents are owners of fishing equipment and 16 per cent own them in partnership. Hence this district has the lowest percentage of labour respondents (58.67 per cent). However, in all districts, the labour respondents dominate over owners and partners of crafts and gear.

Just like agriculture, fishing depends upon natural elements. The difference is that agriculture depends upon monsoon, where as fish catching gets closed with starting of monsoon. In rainy season, the activity cannot be

done. Even during fishing season, actual fishing is done hardly 20-25 days in a month or the peak fishing in a year are only around an average 200 days. Moreover, the Government of Kerala bans trawling by boat in the sea for 45 days in the State during June – July every year to protect the fish wealth during the monsoon period, because it is the breeding season for several fishes. The fishermen do not get any income during off-season and fishing is possible only if weather permits. Hence, it is analysed whether the fishermen are engaged in any subsidiary occupation, like fish curing, fish vending, ice loading, net repairing, mussel collections etc. The Table 4.03 shows the subsidiary occupations of the respondents in the region.

TABLE 4.03
Subsidiary Occupations of Respondents

(Percentages)

Districts	Nothing	Fish curing	Net Repairing	Fish Vending	Mussel Collection	Other occupations	Total
Calicut	92.50	2.00	2.00	0.00	3.50	0.00	100
Trissur	86.67	0.67	1.33	9.33	0.00	2.00	100
Malappuram	96.67	0.00	1.33	0.67	0.00	1.33	100
Kannur	92.00	0.00	6.00	0.67	0.67	0.67	100
Kasargode	77.33	5.33	8.67	8.67	0.00	0.00	100
Total	89.25	1.63	3.75	3.63	1.00	0.74	100

Source: Survey data.

The above table shows that 89.25 per cent of the respondents have no subsidiary occupation. However, 10.75 per cent of the respondents are engaged in various subsidiary occupations. In Kasargode district, 5.33 per cent of the respondents are engaged in fish curing and 8.67 per cent each are

engaged in net repairing and fish vending. As against Kasargode, the highest percentage of respondents working as fish merchants is in Trissur district (9.33 per cent). There are 3.50 per cent respondents in Calicut, who are engaged in mussel collections. In the sample region, 0.74 per cent is engaged in other occupations like loading of fish and packing of fish.

INCOME

It is very difficult to estimate the income of the fishermen since their income is variable depending upon the quantity and quality of the fish catch. However, an effort has been made to obtain the estimates of the average annual income earned by them. Table 4.04 shows the average annual income of the respondents.

TABLE 4.04
Average Annual Income of the Respondents

(Percentages)

Income (Rs.)	Calicut	Trissur	Malappuram	Kannur	Kasargode	Total
Below 12000	36.00	21.33	20.67	31.33	61.33	34.25
12000 - 24000	40.50	63.33	55.33	58.00	36.00	50.00
24000-36000	18.00	14.00	16.67	6.67	1.33	11.75
36000 – 48000	3.00	1.33	4.67	4.00	0.00	2.63
48000-60000	1.50	0.00	0.67	0.00	0.00	0.50
Above 60000	1.00	0.00	2.00	0.00	1.33	0.88
Total	100	100	100	100	100	100

Source: Survey data

The above table shows that 50 per cent of the respondents have an annual average income between Rs.12000 – 24000. However, in Kasargode district, 61.33 per cent of the respondents' annual income is below Rs.12000. In the sample region, 84.25 per cent of the respondents' average annual income is upto Rs.24000. No respondents in Trissur and Kannur have an annual income beyond Rs.48000. There are a few respondents in Calicut, Malappuram and Kasargode whose annual income exceeds Rs.60,000.

Besides the income earned by the respondents, the other members of their family may also be getting income from fishing or some other sources. Hence it is necessary to analyse the income of the other members of the household. Table 4.05 reveals the income earned by the members of the family from fishing.

TABLE 4.05
Members' Income from Fishing

(Percentages)

Annual Income (Rs.)	Calicut	Trissur	Malappuram	Kannur	Kasargode	Total
No Income	40.00	79.33	31.33	36.67	56.67	48.25
Below 10000	15.50	5.33	9.33	12.67	18.00	12.38
10000 – 20000	18.50	9.33	28.67	19.33	20.00	19.13
20000 – 30000	10.50	4.00	16.00	17.33	4.67	10.50
30000 – 40000	6.50	0.00	8.00	3.33	0.67	3.88
40000 – 50000	4.00	2.00	4.00	6.00	0.00	3.25
50000 – 100000	4.00	0.00	2.67	4.67	0.00	2.38
Above 100000	1.00	0.00	0.00	0.00	0.00	0.25
Total	100	100	100	100	100	100

Source: Survey data

In the sample region, 48.25 per cent of the households have no income from fishing other than the respondents' income. In Trissur district, 79.33 per cent of the households have no income from fishing other than the respondents' income from fishing. But, in Calicut, Malappuram and Kannur districts, most of the households have income from fishing contributed by their family members. In Kasargode, no member is deriving any income from fishing beyond Rs.40,000 and in Trissur district no member is getting fishing income in excess of Rs.50,000. However, in Malappuram and Kannur there are 2.67 per cent households and 4.67 per cent households respectively deriving fishing income between Rs. 50000 – 100000 from their family members. In Calicut district, one per cent of the households has an annual income from fishing above Rs.100000 contributed by their family members.

Income analysis of the members of the family from fishing is also significant when it is viewed from the nature of family. It is to be noted that the more the earning members the more will be the household income. Table 4.06 shows the members' income from fishing distributed by nature of family.

TABLE 4.06
Family Members' Income from Fishing by Nature of Family
(Percentages)

Annual Income (Rs.)	Nuclear	Joint	Total
No Income	72.37	26.43	48.25
Below 10000	11.05	13.57	12.38
10000 – 20000	10.26	27.14	19.13
20000 – 30000	3.68	16.67	10.50
30000 – 40000	1.58	5.95	3.88
40000 – 50000	0.53	5.71	3.25
50000 – 100000	0.26	4.29	2.38
Above 100000	0.26	0.24	0.25
Total	100	100	100

Source: Survey data

It is clear from the above table that 72.37 per cent of the households in the nuclear family have only fishing income of the respondent. No other member of his family contributing anything from fishing towards the household income. But in the case of joint family, 73.57 per cent of the households have income from fishing earned by the members of the household.

The members of the respondents' family may also be engaged in some other occupations other than fishing. Hence they may derive certain income from these occupations. Table 4.07 shows that 17.75 per cent of the households in the region are getting certain income by means of the salary of their members.

TABLE 4.07
Salary Income of the Members

(Percentages)

Annual Income (Rs.)	Calicut	Trissur	Malappuram	Kannur	Kasargode	Total
No Income	89.00	72.67	84.67	71.33	91.33	82.25
Below 5000	2.00	2.00	2.67	2.67	2.67	2.38
5000 – 10000	1.00	5.33	3.33	13.33	4.00	5.13
10000 – 20000	4.00	12.00	8.00	9.33	1.33	6.75
20000 – 30000	2.00	4.67	0.00	2.00	0.00	1.75
30000 – 40000	1.00	1.33	0.67	0.00	0.67	0.75
40000 – 50000	0.00	1.33	0.67	1.33	0.00	0.63
Above 50000	1.00	0.67	0.00	0.00	0.00	0.38
Total	100	100	100	100	100	100

Source: Survey data

The above table reveals that 82.25 per cent of the households have no income from salary in the sample region. When compared to other districts, Kannur has the highest percentage of salaried households, since 28.67 per cent of the households have income from salary. In this, 16 per cent of the households' salary income is upto Rs.10,000 per annum. In Trissur also there are 27.33 per cent salaried households. In Trissur, 2 per cent of the households have salary income beyond Rs. 40,000 per annum.

The lowest percentages of salaried households are seen in Kasargode district followed by Calicut and Malappuram.

Another source of income of the households is the income derived from the land. Since the area of land owned by the fishermen is very little,

the income from it is also too little. Only a few households have land income especially those households of northern districts; viz. Kannur and Kasargode. Table 4.08 shows the land income of the households.

TABLE 4.08
Income from Land

(Percentages)

Annual Income (Rs.)	Calicut	Trissur	Malappuram	Kannur	Kasargode	Total
No Income	99.50	92.67	98.67	83.33	56.67	87.00
Below 1000	0.00	3.33	0.67	1.33	4.00	1.75
1000 – 2000	0.50	2.00	0.00	2.00	8.67	2.50
2000 – 4000	0.00	2.00	0.00	4.67	18.00	4.63
4000 – 6000	0.00	0.00	0.00	5.33	7.33	2.38
6000 – 8000	0.00	0.00	0.00	2.00	2.00	0.75
8000 – 10000	0.00	0.00	0.67	0.67	2.00	0.63
Above 10000	0.00	0.00	0.00	0.67	1.33	0.38
Total	100	100	100	100	100	100

Source: Survey data.

The above table shows that only 13 per cent of the households in the sample region have agricultural income. In Calicut district, 0.50 per cent households have annual income from land between Rs.1000 – 2000. In Malappuram, 0.67 per cent of the households have an annual income from land below Rs.1000 and another 0.67 per cent has an income between Rs.8000 – 10000. In Trissur district, 3.33 per cent of the households have an annul income from land below Rs.1000.

Kasargode has the highest percentage of households (43.33 per cent) having income from land followed by Kannur district (16.67 per cent). In Kasargode, 18 per cent of the households have an annual income from land between Rs.2000-4000 as against Kannur where 4.67 per cent of the households have such an income.

During the early 1980s, the migration to Gulf countries for employment and the remittances from such employment buoyed up the Kerala economy. Hence it is found necessary to examine the employment of fisherfolk in Gulf and their remittances to home. Table 4.09 reveals the income of the households from the Gulf job.

TABLE 4.09
Income from Gulf Job

(Percentages)

Annual Income (Rs.)	Calicut	Trissur	Malappuram	Kannur	Kasargode	Total
No Income	93.50	95.33	77.33	94.67	77.33	88.00
Below 10000	0.50	0.00	0.00	0.00	1.33	0.38
10000 – 20000	2.00	2.00	4.67	0.67	7.33	3.25
20000 – 40000	2.50	1.33	13.33	3.33	13.33	6.50
40000 – 60000	0.50	0.67	4.00	1.33	0.67	1.38
Above 60000	1.00	0.67	0.67	0.00	0.00	0.50
Total	100	100	100	100	100	100

Source: Survey data.

The above table shows that only 12 per cent of the households have gulf income in the sample region. Malappuram and Kasargode districts are

leading in the gulf jobs among fishing community vis a vis other districts in Malabar. In the sample region, 6.50 per cent of the households have annual remittances from gulf between Rs.20000 – 40000. Only 0.50 per cent of the households in the region have gulf remittances above Rs.60000. None of the households in Kannur and Kasargode have an income from gulf beyond Rs.60000 per annum.

Certain members of the households are also working as fish merchants. Table 4.10 reveals the income derived from fish vending by the members of the respondents' households.

TABLE 4.10
Income from Fish Merchants

(Percentages)

Annual Income (Rs.)	Calicut	Trissur	Malappuram	Kannur	Kasargode	Total
No Income	98.50	98.67	98.67	98.00	66.67	92.50
Below 5000	0.00	0.67	0.00	0.00	18.00	3.50
5000 – 10000	0.00	0.67	0.00	0.67	14.67	3.00
10000 – 20000	1.00	0.00	0.67	1.33	0.67	0.75
20000 – 50000	0.00	0.00	0.00	0.00	0.00	0.00
Above 50000	0.50	0.00	0.67	0.00	0.00	0.25
Total	100	100	100	100	100	100

Source: Survey data.

The above table shows that only 7.50 per cent of the households have fish-merchant members in the sample region who contribute certain income to their family. It is clear from the table that more than 98 per cent of the

households in all districts have no fish merchants except Kasargode. Kasargode has the largest percentage of fish merchants that too are female members among the sample households. However, in Kasargode 18 per cent of the households income from fish vending is less than Rs.5000 per annum. There are 14.67 per cent households in Kasargode whose annual income from fish vending is between Rs.5000-10000. In Calicut and Malappuram, there are 0.50 per cent and 0.67 per cent households respectively who have income from fish vending above Rs.50000 per annum.

Besides the above mentioned major sources of income of the members of the respondents' family, there are a few members in the family who are working as small traders, telephone booth operators, beedi makers, auto-drivers etc. They also get a little income from these occupations, which are grouped under the income from 'other sources'. Table 4.11 shows the income of the members of the households from 'other sources'.

TABLE 4.11
Income from Other Sources

(Percentages)

Annual Income (Rs.)	Calicut	Trissur	Malappuram	Kannur	Kasargode	Total
No Income	93.00	66.00	92.67	93.33	94.67	88.25
Below 5000	1.00	5.33	3.33	0.00	2.00	2.25
5000 – 10000	2.00	19.33	1.33	3.33	3.33	5.63
10000 – 20000	2.50	7.33	1.33	2.67	0.00	2.75
20000 – 40000	0.00	1.33	0.67	0.67	0.00	0.50
Above 40000	1.50	0.67	0.67	0.00	0.00	0.63
Total	100	100	100	100	100	100

Source: Survey data.

The above table shows that in the sample region only 11.75 per cent of the households have income from other sources. In Trissur district, 34 per cent households have income from other sources. This is mainly due to the fact that there are 34 per cent households in the district where female members are engaged in beedi making and they contribute a little income to their family. In Trissur, 19.33 per cent of the households get an annual income from beedi making between Rs.5000-10000.

Income from other sources is lowest in Kasargode since only 5.33 per cent households have such an income and the maximum income limit is upto Rs.10000 per annum.

However, in the sample region there are 0.63 per cent households who earn an annul income from other sources beyond Rs.40000. The foregoing

discussion on the income of the households reveals that besides the income of the respondents, 51.75 per cent of the households have the annual income supplemented from fishing by other members of the households. Moreover, 17.75 per cent households have income from salary, 13 per cent have land income, 12 per cent have earnings from gulf jobs, 7.50 per cent have income from fish vending and 11.75 per cent have income from various 'other sources' in the sample region.

Thus, the income derived by the households from various sources is being spent for meeting various expenditures of the households. The amount spent by the households and the pattern of expenditure has a great influence on the economic well being of the members. Hence a discussion on different types of expenditure is made in the following pages.

EXPENDITURES

As in the case of income, it is very difficult to collect information of annual expenditures for various purposes from fishermen. However, informations have been collected from them to understand their pattern of expenditure. Their annual expenditure is mainly for meeting the household expenses. Besides, a few fishermen have to spend for their occupational purposes. Hence, the expenditures are mainly classified into household expenditures and occupational expenditures.

Household Expenditures

These are the general expenditures, which are to be borne by all the households. They include expenditure for meeting primary needs like food, clothing, medicine and education. Besides, the households spend money for marriages and religious ceremonies. Some of the households also incur expenditures on thatching the houses, payment of electricity and telephone charges and so on. All these household expenditures are briefly classified into three heads, viz., primary expenditures, expenditure on marriages and religious ceremonies and miscellaneous expenses.

(a) Primary Expenditures

These are the amounts spend on food, clothing, medical expenses and education. Hence, these expenses are to be borne by all the households. However, the amount of such expenses varies in accordance with the number of members in each family. Table 4.12 shows the annual primary expenses of the households in the sample region based on the number of members in the family.

TABLE 4.12
Primary Expenses Based on Number of Persons in the Family
(Percentages)

Amount of Annual Expenses (Rs.)	Less than 5 persons	5-10 persons	10-15 persons	15-20 persons	Above 20 persons
Below 10,000	5.92	0.00	0.00	0.00	0.00
10000 – 20000	36.84	7.74	0.00	0.00	0.00
20000 – 30000	42.76	27.10	4.11	0.00	0.00
30000 – 40000	7.89	27.53	6.85	3.33	0.00
40000 – 50000	4.61	27.53	45.21	3.33	0.00
50000 – 75000	1.32	8.17	30.14	43.33	28.57
75000-100000	0.00	1.72	12.33	43.33	57.14
Above 100000	0.66	0.22	1.37	6.67	14.29
Total	100	100	100	100	100

Source: Survey data.

The above table shows that in a household having less than [illegible] 42.76 per cent have an annual primary expense between Rs.20000-30000 and another 36.84 per cent households have an annual primary expense between Rs.10000-20000. However, 0.66 per cent households have an expense beyond rupees one lakh and it is mainly due to the medical expenses.

In an household of 5-10 persons, annual primary expenditures varies between Rs.20000-30000 for 27.10 per cent households and Rs.20000-40000 and Rs.40000-50000 for an household of 27.53 per cent each. In this type of households there are 0.22 per cent households whose primary expenses are above Rs.1,00,000 per annum.

In an household of 10-15 persons, 45.21 per cent have annual primary expenses between Rs.40000-50000 and 30.14 per cent have expenses between Rs.50,000-75000.

In an household of 15-20 persons, 86.67 per cent of their primary expenses are between Rs.50000-100000 and 57.14 per cent of primary expenses in family of more than 20 persons ranges between Rs.75000-100000. Hence the amount spent on primary expenses depends mainly upon the number of persons in a family.

(b) Expenditure on Marriage and Religious Ceremonies

Majority of the households are spending a certain amount annually towards auspicious occasions like marriage and religious festivals. Table 4.13 shows that 78 per cent of the households are incurring certain expenses by way of marriages and religious ceremonies.

TABLE 4.13
Expenditure on Marriages and Religious Ceremonies

(Percentages)

Annual Amount of Expenses (Rs.)	Calicut	Trissur	Malappuram	Kannur	Kasargode	Total
No Expenses	15.00	28.00	37.33	4.67	27.33	22.00
Below 1000	31.00	52.67	16.67	14.00	22.67	27.63
1000 – 2000	12.50	14.00	25.33	28.00	23.33	20.13
2000 – 4000	11.50	1.33	9.33	33.33	19.33	14.75
4000 – 6000	16.50	0.67	5.33	14.67	3.33	8.63
6000 - 10000	5.50	0.00	0.67	2.00	0.00	1.88
10000 - 25000	3.00	0.00	0.00	3.33	2.00	1.75
25000 – 50000	2.00	0.00	1.33	0.00	0.67	0.87
50000 – 100000	0.50	1.33	2.00	0.00	0.67	0.87
100000 – 200000	1.50	0.67	0.00	0.00	0.67	0.63
Above 200000	1.00	1.33	2.00	0.00	0.00	0.87
Total	100	100	100	100	100	100

Source: Survey data.

The district-wise distribution of the above expenses shows that in Calicut district the expenses vary from below Rs.1000 to above Rs.200000. While 31 per cent of the households in the district are spending less than Rs.1000 per annum for these expenses, one per cent of the household in the district is spending above Rs.200000 per annum. In Trissur district, 52.67 per cent of the households are spending less than Rs.1000 annually while 1.33 per cent is spending above two lakh rupees. In Kannur district, 33.33 per cent of the households' expenses on marriage and religion come between

Rs.2000-4000 annually and no household is incurring more than Rs.25000 for such expenses. In Kasargode also, there are 0.67 per cent households each whose expenses are between Rs.25000 – 50000, Rs.50000 – 100000 and Rs.100000 – 200000 for marriage and religious ceremonies.

c) Miscellaneous Expenses

Besides the primary expenditure and expenditure on marriage and religious ceremonies, some fishermen households also incur certain expenditure on thatching of houses, fencing, electricity and telephone charges etc. All these expenses are included under miscellaneous expenses. The Table 4.14 reveals the miscellaneous expenses distributed on the basis of type of houses.

TABLE 4.14
Miscellaneous Household Expenses

(Percentages)

Amount of Annual Expenses (Rs.)	Thatched	Tiled	Terraced	Partly Terraced	Total
No expenses	12.50	14.10	14.17	0.00	12.75
Below 1000	7.08	79.11	83.46	96.00	59.25
1000 – 2000	44.17	1.83	0.00	0.00	14.13
2000 – 4000	33.33	3.13	0.00	0.00	11.50
4000 – 6000	2.50	1.31	0.79	2.00	1.63
6000 – 10000	0.42	0.00	0.00	2.00	0.25
Above 10000	0.00	0.52	1.57	0.00	0.50
Total	100	100	100	100	100

Source: Survey data.

The above table shows that miscellaneous expenses are below Rs.1000 only for 79.11 per cent of tiled households, 83.46 per cent of terraced households and 96 per cent of partly terraced households. This is mainly due to the fact that their miscellaneous expenses constitute only electricity charges. However, in case of thatched huts, 44.17 per cent houses have expenses between Rs.1000-2000 per annum, and 33.33 per cent thatched houses have miscellaneous expenses of Rs.2000 – 4000 per annum. And there are 0.42 per cent thatched houses whose miscellaneous expenses ranges between Rs.6000 – 10000 per annum. Hence the thatched huts have to incur annually up to Rs.10000 for thatching of their houses. This expense varies according to the size of the house. Besides, certain households also incur expenses on fencing their area annually. There are 0.52 per cent tiled households and 1.57 per cent terraced households whose miscellaneous expenses go beyond Rs.10000 per annum. It is mainly due to their electricity and telephone charges. Hence it is found that annul miscellaneous expenses are higher in case of thatched households than the other types of households. There are 12.75 per cent households in the region who are not incurring any miscellaneous expenditure.

Occupational Expenses

Apart from the general household expenses discussed earlier, the fishermen have to incur certain particular expenses in connection with their fishing occupation. These expenses are grouped in to two categories.

(i) Recurring Expenses

These are the expenditures, which are to be met daily or per trip. They include fuel expenditures, expenditure on food while going for fish, expenses on ice for preserving the catch while in sea for two or three days etc.

Recurring expenditures normally depends on the type of craft used for fishing, H.P of motor used in the craft, number of crews in the craft, the distance travelling in the sea and the duration of fishing. The owner of the craft and gear initially advances these expenditures. Then the catch price is divisible between the owner and the crews on an agreed proportion after deducting the recurring expenditures for fishing. The following table shows the recurring expenditures on various crafts.

TABLE 4.15
Recurring Fishing Expenses

(Percentages)

Amount of Expense per Trip (Rs.)	Country Craft	Small (OBM) craft	Large (OBM) craft	Boat	Total
No Expenses	50.62	0.00	0.00	0.00	16.08
Below 100	23.46	0.00	0.00	0.00	7.45
100 – 500	22.22	0.00	0.00	0.00	7.05
500 – 1000	3.70	75.83	0.00	0.00	36.86
1000 – 2000	0.00	18.33	0.00	25.00	9.80
2000 – 4000	0.00	4.17	0.00	41.67	3.92
4000 – 6000	0.00	1.67	21.43	33.33	5.88
6000 – 7000	0.00	0.00	71.43	0.00	11.76
Above 7000	0.00	0.00	7.14	0.00	1.18
Total	100	100	100	100	100

Source: Survey data.

The above table shows that recurring expenses on country crafts are a little when compared to other crafts. Since country crafts are non-motorised, the only recurring expenses for such a method of fishing is the food expenses. In the Sample region, 50.62 per cent of country crafts do not incur any recurring expenses since there are no crews for them, the owner himself is going for fishing in the inshore areas. Normally the food expenses varies from Rs.75-150 per head depending upon the season and one to two persons are going for fishing in this craft, in certain cases, 3-4 persons may also be going for fishing.

Since small (OBM) craft is motorized, their major item of recurring expenses is the fuel. The main item of fuel is kerosene, which is used along with petrol and engine oil in certain proportion. Besides fuel, crews are paid food expenses at the rate of Rs.100-150 per head depending upon the situation. Normally 3-5 crews are employed in this craft. The recurring expenses of these crafts vary from Rs.500-Rs.6000 depending upon the type of engine used, distance travelled and the number of crewmembers. However, 75.83 per cent of recurring expenses of these crafts range between Rs.500-1000 per trip.

The highest amount of recurring expenses is incurred by large (OBM) crafts. These crafts use 25x2 HP/40x2 HP engines to go for deeper waters and 30-40 crews are employed in this craft. The above table reveals that

71.43 per cent of these crafts have recurring expenses between Rs.6000 and 7000. If they work for a full day their expenses may go beyond Rs.7000 and 7.14 per cent of large crafts are having recurring expenses beyond Rs.7000.

In the case of mechanical boats, their recurring expenses include not only fuel and food expenses but also amount spent on ice for preserving the fish since they are landing to the sea-shore only after two or three days of catch. Their recurring expenses various from Rs.1000-6000 per trip. Only 25 per cent of them have expense between Rs.1000-2000 per trip, while the remaining have expenses from Rs.2000-6000 in which 41.67 per cent have an expense between Rs.2000-4000 per trip.

Besides the aforesaid recurring expenses, the owner of the craft has to bear certain non-recurring expenses which are discussed below.

(ii) Non-Recurring Expenses

These expenses include the cost of repairing and maintenance of craft, engine, repairs and replacement of gear, etc. These expenses are to be borne by the owner of the fishing equipment and not by the crews. Hence in this study, the owners and partners of the equipment bear the non-recurring expenses. Table 4.16 shows the non-recurring expenses on various crafts.

TABLE 4.16
Non-Recurring Fishing Expenses

(Percentages)

Amount of Annual Expenses (Rs.)	Country craft	Small (OBM) craft	Large (OBM) craft	Boat	Total
500-10000	98.77	70.00	0.00	0.00	64.31
10000-20000	1.23	24.17	4.76	8.33	12.94
20000-50000	0.00	4.17	16.67	25.00	5.88
50000 – 100000	0.00	1.67	45.24	41.67	10.20
100000 – 200000	0.00	0.00	21.43	25.00	4.71
Above 200000	0.00	0.00	11.90	0.00	1.96
Total	100	100	100	100	100

Source: Survey data.

The non-recurring expenditure on country crafts is mainly for repairing and maintenance of craft and replacement of gear. The annual expenditure of 98.77 per cent of these crafts comes between Rs.500-10000.

In the case of small (OBM) crafts, 70 per cent of crafts have expenditure between Rs.500-10000 per annum. While 1.67 per cent have expenses from Rs.50,000-1,00,000 per annum. The fluctuations in these expenses are mainly due to the repairs and maintenance to the OBM engines. Besides, they are also incurring expenses for replacement of gear and maintenance of craft. The replacement of gear requires Rs.5000-10000 depending upon the type of gear used for fishing.

In the case of large (OBM) crafts, 45.24 per cent have an amount of non-recurring expenses between Rs.50000 and 100000 and 11.90 per cent have an annual expense above Rs.200000. Here also, the major share of non-recurring expense is the replacement of gear which may cost above Rs.100000 per annum as reported by the respondents. Besides, they have also to incur the cost of repairing and maintenance of OBM engines and crafts.

The non-recurring expense of mechanical boats ranges from Rs.10000-200000 annually. Here also the expenses are increased mainly for repairs and replacement of gear and repair and maintenance of boat.

Since the total catch is divisible between owners and crews in an agreed proportion after meeting the recurring expenses, the catch price should leave something in excess of recurring expenses. The catch price always depends upon the quality and quantity of fish. In certain season, fishermen are not going for fishing, as they cannot recover these recurring expenses. Moreover, the owners have to meet the non-recurring expenses out of their earnings. Hence the fishing occupational expenses have a great influence on the well being of the fishermen.

SAVINGS

The general assumption regarding the fishing community is that they lack thrift and they seldom save. Table 4.17 shows that 72.13 per cent of

fishermen have some kind of savings and 27.88 per cent have no savings whatsoever.

TABLE 4.17
Savings of Fishermen

(Percentages)

Districts	No	Yes	Total
Calicut	41.50	58.50	100
Trissur	36.67	63.33	100
Malappuram	14.67	85.33	100
Kannur	16.67	83.33	100
Kasargode	25.33	74.67	100
Total	27.88	72.13	100

Source: Survey data.

The above table shows that the habit of saving is more in Malappuram (85.33 per cent) and Kannur (83.33 per cent) among the fishermen. The lowest percentage of savings is in Calicut (58.50 per cent) followed by Trissur (63.33 per cent).

It is also important to examine the channels into which these savings are diverted. Table 4.18 shows the method of savings of fishermen in the sample region.

TABLE 4.18

Method of Savings

(Percentages)

Districts	Deposits Bank/ Post office	Chitties	SRS	Deposits + SRS	Chitties + SRS	Deposits + Chitties + SRS	Others	Total
Calicut	2.56	1.71	26.50	17.95	35.90	7.69	7.70	100
Trissur	3.16	4.21	60.00	15.79	10.53	0.00	6.32	100
Malappuram	0.00	2.34	43.75	7.03	36.72	5.47	4.69	100
Kannur	0.00	0.80	72.00	19.20	2.40	3.20	1.60	100
Kasargode	0.80	5.36	19.64	19.64	29.46	14.29	11.61	100
Total	1.21	2.77	44.37	15.77	23.40	6.24	6.24	100

Source: Survey data.

The above table shows that 1.21 per cent of fishermen have saving only through deposits in bank/post office. While 2.77 per cent of fishermen in the region divert their funds only into chitties.

The most important method of savings among the fishing community is the Saving cum Relief Scheme (SRS) introduced by the Fisheries Department of the State Government. This is a scheme providing relief assistance to fishermen during lean period by mobilizing their savings during peak season. In the sample region, 44.37 per cent of fishermen have only this method of savings. In Kannur district, 72 per cent of fishermen have only this savings while in Trissur 60 per cent of fishermen have only SRS. There are a

few fishermen in the region who have deposits in bank/post office and chitties along with SRS. There are 6.24 per cent of fishermen in the region who make use of all the three methods of savings viz., deposits, chitties and SRS. There are other 6.24 per cent fishermen in the region whose savings are chanallised into various other fields like investment in gold, life insurance policy, chitties and deposits in bank/post office, in other combinations of theses fields.

From the above analysis it is clear that the percentage of savings among fishing community is higher mainly due to the SRS introduced by the government.

DEBT

Since the fishermen have to meet their income not only for primary needs but also for occupational expenses, it is very difficult for them to survive with the income alone. Hence there is the problem of indebtedness. Table 4.19 shows the indebtedness of fishermen.

TABLE 4.19
Indebtedness of Fishermen

(Percentages)

Districts	Yes	No	Total
Calicut	54.00	46.00	100
Trissur	92.67	7.33	100
Malappuram	81.33	18.67	100
Kannur	69.33	30.67	100
Kasargode	44.67	55.33	100
Total	67.50	32.50	100

Source: Survey data.

The above Table shows that 67.50 per cent of the fishermen are in debt. The highest percentage of borrowers is in Trissur (92.69 per cent) and the lowest percentage of borrowers is Kasargode (44.67 per cent).

a) Sources of Loan

Fishermen are borrowing funds from various sources like commercial bank, co-operative bank, Matsyafed and friends and relatives. Table 4.20 shows the various sources of loan.

TABLE 4.20
Sources of Loan

(Percentages)

Sources of Debt	Calicut	Trissur	Malappuram	Kannur	Kasargode	Total
Commercial bank	9.26	1.44	9.02	12.50	5.97	7.41
Co-operative Bank	19.44	2.16	13.93	56.73	53.73	25.19
Matsya Fed	7.41	2.16	4.92	4.81	7.46	5.00
Friends and Relatives	24.07	11.51	22.13	6.73	11.94	15.55
Others	8.33	44.60	15.57	6.73	4.48	18.52
Commercial + Co-operative Bank	0.93	0.72	0.82	3.85	1.49	1.48
Commercial + Friends	6.48	1.44	4.92	0.96	1.49	3.15
Commercial + others	0.93	4.32	4.92	1.92	0.00	2.78
Co-operative + Friends	7.41	2.16	9.84	0.96	8.96	5.55
Co-operative + Others	1.85	6.48	3.27	3.85	2.99	3.89
Friends + Others	4.63	19.42	3.27	0.00	1.49	6.85
Commercial + Co-operative + Friends	4.63	0.72	1.64	0.00	0.00	1.48
Co-operative + Friends + Others	4.63	2.88	5.74	0.96	0.00	3.15
Total	100	100	100	100	100	100

Source: Survey data.

Their main source of institution for borrowing is co-operative bank, since 25.19 per cent of the borrowers have taken loan from this institution

alone. When 7.41 per cent of borrowers have taken loan from commercial banks only 5 per cent of the borrowers have taken loan from Matsyafed. Of the total borrowers, 15.55 per cent are indebted to their friends and relatives. Besides, there are 18.52 per cent respondents who have taken loan from various "other sources" like owners of crafts, fish auctioneers, village money lenders, local bodies, etc. In Trissur, 44.60 per cent had taken loan from "other sources".

There are respondents who have taken loan from various combinations of two or three sources.

In the sample region 6.85 per cent have taken loan from friends and others and 5.55 per cent have taken loan from co-operative banks and friends. Similarly, 3.15 per cent have taken loan from three sources viz. co-operative banks, friends and others; and 1.48 per cent has taken loan from commercial banks, co-operative banks and friends and relatives.

Thus, the main source of borrowing is co-operative banks followed by other miscellaneous sources and friends and relatives. However, the role of Matsya Fed in providing credit to the fishermen is not satisfactory.

b) Purpose of Loan

The loan taken by the fishermen from the above mentioned sources are for meeting their different purposes. Thus, the purpose for which the loan is

taken is grouped in to three categories, viz. primary, secondary and occupational purposes.

Primary purposes constitute loan for livelihood, house construction and repairs, toilet construction, medical expenses and marriage and for repayment of old debts.

Secondary purpose include borrowing for purchasing T.V., refrigerator etc., loan for business purposes, loan advanced to friends and relatives in order to help them, and borrowing for going abroad.

Loan taken for buying fishing equipment, repair and maintenance of them are grouped under occupational loan.

Table 4.21 shows the loan taken from various sources for primary, secondary and occupational purposes.

TABLE 4.21

Purpose wise Classification of Loan

(Percentages)

Sources	Primary	Secon-dary	Occupa-tional	Primary + Secon-dary	Primary + Occupa-tional	Secon-dary + Occu-pational	Total
Commercial bank	72.50	2.50	22.50	0.00	2.50	0.00	100
Co-operative Bank	74.26	11.03	12.50	0.74	0.74	0.74	100
Matsya Fed	25.93	0.00	70.37	0.00	3.70	0.00	100
Friend and Relatives	69.05	19.05	4.76	1.19	5.95	0.00	100
Others	46.00	7.00	15.00	15.00	15.00	2.00	100
Commercial + Co-operative Bank	62.50	12.50	0.00	0.00	12.50	12.50	100
Commercial + Friends	58.82	11.76	5.88	5.88	11.76	5.88	100
Commercial + others	26.67	6.67	13.33	6.67	40.00	6.67	100
Co-operative + Friends	63.33	6.67	10.00	10.00	6.67	3.33	100
Co-operative + Others	52.38	0.00	23.81	9.52	14.29	0.00	100
Friends + Others	37.84	10.81	8.11	29.73	10.81	2.70	100
Commerical + Co-operative + Friends	50.00	0.00	0.00	12.50	25.00	12.50	100
Co-operative + Friend + Others	52.94	0.00	11.76	5.88	29.41	0.00	100
All groups	58.70	9.07	14.81	6.85	8.89	1.67	100

Source: Survey data.

What is remarkable about the purpose is that 58.70 per cent of the loan taken from various sources is for primary purposes alone and only 14.81 per cent of the loan is for occupational purposes alone. Since primary

purpose dominates over the other two purposes, it is clear that their income is not sufficient to meet their primary needs.

It is also worth mentioning that 70.37 per cent of loan taken from Matsyafed are exclusively for occupational purposes. However, there are 25.93 per cent borrowings from Fed for meeting primary needs.

Loan taken for secondary purposes only constitute 9.07 per cent. Besides, there are 6.85 per cent of loan taken for meeting both primary and secondary purposes and 1.67 per cent for meeting secondary and occupational purposes.

c) Amount of Loan

The study further shows that the total amount of their borrowings ranges from Rs.2000 and goes beyond Rs.200000. Table 4.22 shows the total amount of loan taken by the respondents.

TABLE 4.22

Amount of Loan

Amount of Debt (Rs.)	Percentage of Respondents
2000 – 5000	4.45
5000 – 10000	8.15
10000 – 20000	22.60
20000 – 50000	38.33
50000 – 100000	15.55
100000 – 200000	8.70
Above 200000	2.22
Total	100

Source: Survey data.

As stated earlier, 67.50 per cent of the households are in debt. From the above table it is found that 38.33 per cent of the borrowers' debt ranges between Rs.20000 and 50000, while 2.22 per cent of borrowers have debt in excess of Rs.2 lakhs. These only constitute the principal amount of the debt; if the interest on loan is also added to the principal amount, the amount of the loan will definitely increase. But the fishermen are not aware of the interest on loan. Hence it is difficult to collect information as to the interest on loan.

d) Loan Repayment

In the sample area, 67.50 per cent of the respondents are in debt, but only 46.11 per cent of them are only making some repayment towards their loan. The remaining 53.89 per cent are not contributing anything towards the loan mainly due to their irregular income. Table 4.23 shows the distribution of borrowers who are making repayments towards their loan.

TABLE 4.23

Loan Repayment

(Percentages)

Districts	Repayment	Non-Repayment	Total
Calicut	49.07	50.93	100
Trissur	33.81	66.19	100
Malappuram	36.07	63.93	100
Kannur	46.15	53.85	100
Kasargode	85.07	14.93	100
Total	46.11	53.89	100

Source: Survey data.

The above table reveals that in all districts, except in Kasargode, more than 50 per cent of the borrowers are not repaying their loan. In Kasargode district, 85.07 per cent are repaying their loan amount. In Calicut 49.07 per cent repay while nearly 51 per cent does not repay their debt.

With regard to the extent of repayment, Table 4.24 shows the amount of loan and the annual repayment towards the loan.

TABLE 4.24

Amount of Repayment

Loan Amount (Rs.)	Percentage of Borrowers	Average Annual Repayment Amount (Rs.)	Percentage of Annual Repayment
2000 – 5000	4.45	215	7.95
5000 – 10000	8.15	1160	19.06
10000 – 20000	22.60	1990	18.12
20000 – 50000	38.33	2360	8.41
50000 – 100000	15.55	6421	10.29
100000 – 200000	8.70	9787	7.62
Above 200000	2.20	7000	2.68
Total	100		11.55

Source: Survey data.

The above table shows that, of the total borrowers within the range of Rs.2000 – 5000, their average annual repayment is Rs.215. That means only 7.95 per cent of their loan amount is repaid annually. The highest percentage of loan repayment amount is among borrowers within the range of

Rs.5000 – 10000. Those who are in debt above Rs.200000 are repaying on an average Rs.7000 per annum, that is 2.68 per cent of their loan amount is repaid annually. Hence it is found that even a debt of Rs.2000 – 5000, requires a repayment period of above 12 years since the annual repayment is only about 8 per cent of the loan. The borrowers beyond Rs.200000 may take nearly 40 years to discharge their loan amount since the average annual amount of repayment is about 2.50 per cent of their debt. However, if the fishermen get a bumper catch in a particular season, they may contribute a higher amount towards their loan repayment and discharge their loan at an early date. In short, the loan repayment of the respondents is not found to be satisfactory.

Fishermen's Welfare Fund Board

For the economic well being of the fishing community, the Kerala Fishermen's Welfare Fund Board was established in 1986 having its head quarters in Trissur. It is an agency implementing welfare and relief schemes to the fishermen in the State. Among the various activities, old age pension, group insurance, financial assistance to death during and immediately after fishing, financial assistance for the funeral functions on the death of the fishermen or his relatives, assistance for the marriage of daughters of fishermen, financial assistance for the treatment of fatal diseases etc. are important ones.

Those fishermen who are the members of the Welfare Fund Board have to make an annual contribution of Rs.30 to the Board. The Board will issue a card identifying them as fishermen who are eligible for various schemes and assistances of the Welfare Fund Board. Besides the annual subscription of Rs.30, the owners of crafts and gear are also to contribute a certain sum annually according to the type of the craft used by them.

In the sample region, 86.75 per cent of the respondents are the members of the Welfare Fund Board and the remaining 13.25 per cent have no membership in the Board. Table 4.25 shows the membership of the respondents in the Welfare Fund Board.

TABLE 4.25

Membership in the Fishermen Welfare Fund Board

Districts	No	Yes	Total
Calicut	5.50	94.50	100
Trissur	32.00	68.00	100
Malappuram	5.33	94.67	100
Kannur	9.33	90.67	100
Kasargode	16.67	83.33	100
Total	13.25	86.75	100

Source: Survey data.

The highest percentage of respondents who have no membership in the Welfare Fund Board is in Trissur district (32 per cent) followed by Kasargode

(16.67 per cent), while in all other districts more than 90 per cent of the respondents are members of the Welfare Fund Board.

The various reasons for lack of membership in the Welfare Fund Board are revealed in Table 4.26.

TABLE 4.26

Reasons for not having Membership in the Board

District	Applied for Membership	Not Interested	Not Approved by the Board	Economic Backwardness	Pensioned off	Total
Calicut	9.09	45.45	18.18	0.00	27.27	100
Trissur	29.17	31.25	8.33	31.25	0.00	100
Malappuram	0.00	50.00	12.50	37.50	0.00	100
Kannur	7.14	42.86	14.28	7.14	28.57	100
Kasargode	0.00	56.00	36.00	8.00	0.00	100
Total	15.09	41.51	16.98	19.81	6.60	100

Source: Survey data.

The above table shows that the major reason for not having the membership in the Board is the lack of interest of fishermen to become a member in the Board. Next to lack of interest, economic backwardness constraints them to take membership in the Board. Of the total respondents who have no membership in the Board, 15.09 per cent have already applied for membership and are awaiting approval, while 16.98 per cent lack membership since their applications have not been approved off by the Board

due to various reasons. Of those who do not have membership in the Board, 6.60 per cent were earlier members of the Board and now pensioned off since they attained the age of 60 years. When compared to other districts, Trissur district has more applicants for membership in the Board among the respondents.

The above analyses indicate the economic problems of fishermen. Majority of the respondents do not own fishing equipment and they work as labourers. Fishermen do not get any income during off-season and 89.25 per cent do not have any subsidiary occupation. Their annual incomes are not sufficient even to meet their primary needs. The annual income of 84.25 per cent of the respondents are below Rs.24000, of these 34.25 per cent have an annual income below Rs.12000. Supporting income from other members of the family are also not satisfactory, since 48.25 per cent of the households have no income from fishing other than the respondent's income. Supporting income of members from various other sources are also less. The mechanization and motorization of fishing equipment increased their daily fishing expenses. Besides, they have to incur non-recurring expenses for maintenance and replacement of fishing equipment. Most of the fishermen have the habit of savings mainly due to the SRS introduced by the Government. However, majority of the fishermen are in debt and are not repaying their loan regularly and their annual repayment amount is too small to get rid of their indebtedness.

In short, like social conditions, their economic conditions are far from being satisfactory. Besides socio-economic problems, fishermen are also facing problems particularly in the field of catching and marketing of fishes which will be discussed in the forthcoming chapter.

CATCHING AND MARKETING PROBLEMS OF FISHERMEN

Alavy Kutty P.M. “Socio-economic problems of fishermen in Kerala with special reference to malabar region” Thesis. Department of Commerce and Management Studies , University of Calicut, 2004

CHAPTER V

CATCHING AND MARKETING PROBLEMS OF FISHERMEN

The study in the previous chapters enabled to identify their socio-economic problems. The indicators used to analyse their Socio-economic problems were literacy, sanitation and drainage, drinking water, housing, electricity, household durables, ownership of fishing equipment, income, household expenses, fishing expenses, savings and debt. Apart from socio-economic problems, fishermen also have problems in the field of catching of fish, marketing of fish etc.

Hence this chapter is devoted to discuss the catching and marketing problems of fishermen in this region.

Problems in Catching

Catching of fish is not free from problems. The following data have been collected from the respondents regarding the various constraints in catching of fish. The factors adversely affecting fishing are shown in Table 5.01.

TABLE 5.01

Factors Adversely Affecting Fishing

(Percentages)

Districts	No. Problem	Rough weather	Govt. policies	Rough weather + Govt. policies	Rough weather + Rock in the Sea	Rough weather + Boats and ships	Rough weather + Govt. polities + Boats and Ships	Misce-llaneous factors	Total
Calicut	1.00	39.00	1.00	14.00	19.00	1.50	21.00	3.50	100
Trissur	0.00	80.67	0.00	7.33	2.00	8.67	0.00	1.33	100
Mala-ppuram	0.67	19.33	0.00	10.00	45.33	2.00	19.33	3.33	100
Kannur	1.33	75.33	0.67	4.00	12.67	1.33	4.67	0.00	100
Kasar-gode	0.67	80.67	0.67	17.33	0.00	0.00	0.00	0.67	100
Total	0.75	57.75	0.50	10.75	16.00	2,63	9.75	1.88	100

Source: Survey data.

The above table reveals that the most important factor affecting fishing is rough weather. In all the districts, except Malappuram and Calicut rough weather has been the single major factor that adversely affects fishing. In Malappuram district, 45.33 per cent respondents have reported that both rough weather and rocks in the sea adversely affect their fishing. Since the fishermen are unable to identify sea rocks, their crafts and gears are subject to losses due to sea rocks. There are 19.33 per cent respondents in Malappuram who consider government policies, rough weather and boat & ship fishing as the constraints that affect their fishing.

In Calicut district, 39 per cent consider rough weather as the only cause adversely affecting their fishing. While 21 per cent argue that government policies, boat and ship fishing and rough weather are their main problems in catching fish. Thus, the major factors affecting fishing are rough weather, rocks in the sea, government policies and boats and ships. There are 1.88 per cent respondents in the region who complained of the various combinations of the above factors as the problems for their fishing. They are put under miscellaneous factors. However, there are 0.75 per cent respondents in the region who stated that they have no problems in fishing.

Hence it is found that there are differences of opinion among the respondents as to the various factors that adversely affect their fish catching. It is tested to see whether the differences were significant or not by using χ^2 test. The calculated value of χ^2 is 351.69. Since P value is very much less than 0.01, it can be proved that there is highly significant difference between the opinions of respondents in various districts with respect to the factors that adversely affect the fish catching.

The above mentioned factors not only limit their catching, but also cause damages to the fishing equipment. Hence the owner or partners were asked whether they had incurred any losses to the crafts and gear last year due to rough weather, rocks in the sea and fishing by boats and ships.

In the region 88.88 per cent of owners/partners of fishing equipments reported that they had not incurred any loss or damage to their crafts and gear during the last year. But there are 11.12 per cent, who have incurred losses due to the following causes which are shown in Table 5.2.

TABLE 5.02

Losses to Crafts and Gear

(Percentages)

Districts	Rough weather	Rocks in the sea	Boat fishing	Rough weather and Boat fishing	Total
Calicut	11.11	48.15	40.74	0.00	100
Trissur	75.00	0.00	16.67	8.33	100
Malappuram	45.00	40.00	15.00	0.00	100
Kannur	74.07	18.52	7.41	0.00	100
Kasargode	66.67	0.00	33.33	0.00	100
Total	48.31	29.21	21.35	1.12	100

Source: Survey data.

The major cause of loss to their craft and gear was rough weather. Next to rough weather, sea rocks caused accidents to crafts and gear. In Thrissur and Kannur about 75 per cent of the loss to the fishing equipment was due to rough weather, while in Calicut 48.15 per cent of loss was due to accidents by sea rocks. In all districts, the craft owners and partners suffered losses during the last year due to boat fishing. Boat fishing damages the nets of fishermen. In Trissur district, 8.33 per cent of owners/partners suffered losses due to rough weather and boat fishing.

Since there are complaints against boat fishing, all the respondents were asked to express their views whether fishing by boats affected the traditional fishing. Table 5.03 shows their responses.

TABLE 5.03

Whether Mechanical Boat Fishing Affects Traditional Fishing

(Percentages)

Districts	No	Yes	Total
Calicut	26.00	74.00	100
Trissur	1.33	98.67	100
Malappuram	13.33	86.67	100
Kannur	64.00	36.00	100
Kasargode	43.33	56.67	100
Total	29.38	70.63	100

Source: Survey data

In the sample region more than 70 per cent of the respondents complained against boat fishing. The hightest percentage of complaint against boat fishing was from Trissur (98.67 pre cent) followed by Malappuram (86.67 per cent). In Kannur district, however, 64 per cent of the respondents stated that fishing by mechanical boat did not affect their traditional fishing.

Since there is no unanimity among the respondents in various districts as to whether boat fishing affects traditional fishing, χ^2 test was applied to test whether the difference of opinion among respondents in the various districts was significant or not. The calculated value of χ^2 is 46.198. Since P value is

very much less than 0.01, it can be proved that there is highly significant difference between the opinions of the respondents in various districts as to whether boat fishing affects traditional fishing.

Since these respondents use various types of crafts for their fishing, including mechanical boat, their views are further examined through the angle of the type of craft they used for fishing. Majority of the fishermen who use country crafts and motorised crafts for their fishing complained that boat fishing adversely affected traditional fishing. While among the boat fishermen, 59.68 per cent of them argue that their fishing in no way affects traditional fishing. However, there are 40.32 per cent boat fishermen who admit that their fishing adversely affects traditional fishermen. Like boat fishermen, 61.90 per cent of the respondents using more than one type of craft for their fishing, argue that boat fishing does not affect traditional fishing.

Since 70.63 per cent of respondents in the region had said that boat fishing affects traditional fishing, they were asked to state how boat fishing affected traditional fishing. Table 5.04 shows the ways by which traditional fishing is affected by mechanised boat fishing.

TABLE 5.04

Ways by which Traditional Fishing is affected by Boat Fishing

(Percentages)

Districts	Destroys Fry & eggs	Destroys nets of vallam	Fishing inshore	Night fishing	Many species are not available	Destroys Fry & eggs + Nets of Vallam	Destroys Fry & eggs + Fishing inshore	Destroys fry & eggs + Night fishing	Destroys fry & eggs + Many species not available	Destroys nets of vallam + Night fishing	Destroys fry & eggs + Nets of Vallam + Night fishing	Destroys fry & eggs + Inshore fishing + Night fishing
	1	2	3	4	5	1 + 2	1 + 3	1 + 4	1 + 5	2 + 4	1 + 2 + 4	1 + 3 + 4
Calicut	22.30	22.30	0.00	14.19	0.00	12.16	2.03	14.86	0.00	7.43	4.73	0.00
Trissur	56.76	1.35	2.03	6.08	0.00	6.08	6.76	16.89	0.00	0.00	1.35	2.70
Malappuram	35.38	5.38	4.62	23.85	0.77	11.54	3.85	6.15	1.54	2.31	3.08	1.54
Kannur	50.00	7.41	1.85	11.11	9.26	1.85	5.56	5.56	3.70	3.70	0.00	0.00
Kasargode	57.65	5.88	5.88	2.35	4.71	8.24	8.24	0.00	4.71	0.00	0.00	2.35
Total	42.30	9.03	2.65	12.21	1.77	8.85	4.96	10.27	1.42	2.83	2.30	1.42

Source: Survey data.

The table 5.04 shows that in the sample region the major complaint against fishing by boat is that they destroy fry and eggs of fish. In Calicut district, 22.30 per cent complained that fishing by boat destroys eggs and fry and another 22.30 per cent complained that mechanical boat destroys the nets of Vallam. In Malappuram, 35.38 per cent complained about boats that they destroy fry and eggs, while 23.85 percent stated that fishing by boat during night caused the fishes to go to deeper waters causing non-availability of fish to traditional fishermen. There are 1.77 per cent complainants in the region who argue that fishing by mechanised boat was the reason for non-availability of certain species which had been available earlier. However, in Calicut and Trissur, none has registered such a complaint.

Hence, the study reveals that majority of the respondents in the region complain that, in the process of trawling by boat, the heavy iron-chains and outer boards attached to the trawl nets destroy all organic matters including juveniles of fishes and eggs in the bottom of sea and causes crisis in the fish production and the depletion of fishery resources. Also fishing by mechanical boat causes capital loss to the owners, by damaging their nets. There are a few fishing boats operating in the inshore areas, though they are allowed to operate only beyond 22 kms. from the coast, causing problems to traditional fishermen. Night fishing by boat causes the fishes not to come towards the inshore areas and that adversely affects the traditional fishermen operating in the inshore areas.

A few respondents in the region have complained against boat fishing by raising more than one complaint which are the combinations of the first five.

Hence it is found that there is difference of opinion among the fishermen in various districts regarding the ways in which boat fishing affects traditional fishing. χ^2 test was used to test whether the difference of opinion among fishermen in various district was significant or not. The calculated value of χ^2 is 210.82. Since P value is very much less than 0.01, it can be proved that there is highly significant difference between the opinions of respondents in various districts with respect to the ways by which boat fishing affects traditional fishing.

When the complaints against boat fishing were examined according to the type of crafts they used for fishing, it is seen that the major complaint of country craft fishermen against boat fishing is that, boat fishing destroys fry and eggs. Next to this complaint, country craft fishermen stated that night fishing by boats adversely affects their traditional fishing. They also pleaded that fishing by boats destroyed their nets and caused capital losses to them.

Like country craft fishermen, small (OBM) fishermen also consider destruction of fry and eggs by boat as the major factor that affects traditional fishing. Besides this, damaging of nets and night fishing are considered the two other factors affecting traditional fishing. Majority of the large (OBM)

craft fishermen also stated that boat fishing destroyed fry and eggs. However, only 0.53 per cent of these type fishermen complained about non-availability of certain species due to boat fishing. Species depletion issue was raised mainly by country craft and small (OBM) craft fishermen.

Those fishermen who are using more than one type of craft stated that boat fishing destroyed the fry and egg and they consider it as the major grievance against boat fishing.

It is to be noted that even among the boat fishermen, who admit that their fishing affects traditional fishing stated that their fishing destroyed fry and eggs. When 48 per cent of them admit destruction of fry and eggs, the other 28 per cent among them stated that due to their fishing during night, fishes were going into deeper waters and were not coming towards the inshore areas. Thus traditional fishermen are adversely affected by their fishing. There are 12 per cent boat fishermen who stated that their fishing during night caused damage to the nets of Vallam. However, none of the boat fishermen in the sample region agree that there is non-availability of certain species due to their fishing.

In the sample region 29.38 per cent respondents argue that boat fishing does not affect traditional fishing. The various reasons stated by them to support their arguments are shown in Table 5.05.

TABLE 5.05

Reasons for Not Affecting Traditional fishing

(Percentages)

Districts	Deep sea fishing by boat	Boat catches from the bottom of the sea	Traditional fishermen not inexistence	Trawling Ban	Traditional not inexistence + Trawling Ban	Total
Calicut	69.23	0.00	3.85	23.08	3.85	100
Trissur	50.00	50.00	0.00	0.00	0.00	100
Malappuram	30.00	20.00	15.00	15.00	20.00	100
Kannur	17.71	0.00	57.29	6.25	18.75	100
Kasargode	64.62	0.00	26.15	3.08	6.15	100
Total	43.40	2.13	32.77	9.79	11.91	100

Source: Survey Data.

Of the 29.38 per cent respondents in the region, 43.40 per cent argue that, mechanised boat fishing does not affect traditional fishing, because boats are fishing in deep sea unlike traditional fishermen fishing in the inshore areas. In Calicut 69.23 per cent and in Kasargode 64.62 per cent of them argue that traditional fishing is not affected by boat fishing due to fishing in deep sea by boats.

There are 32.77 per cent respondents in the region among the supporters of boat fishing who argue that boat fishing does not affect traditional fishing since traditional fishermen are not inexistence. Their argument is based on the fact that traditional fishermen are also doing deep-sea fishing with the help of motorised crafts and hence the bifurcation of fishermen into traditional and non-traditional is meaningless. In Kannur

district, 57.29 per cent argue that traditional fishing is not affected by boat fishing since traditional fishermen are not inexistence as before.

In Trissur district 50 per cent are of the argument that fishing by mechanised boat is done from the bottom of the sea as against traditional fishermen who catch the floating fishes from the sea. Hence boat fishing does not affect traditional fishing.

There are 9.79 per cent respondents in the region who argue that due to trawling ban by the Government during monsoon boat fishing does not affect traditional fishing. Another 11.91 percent agree that due to both trawling ban and non-existence of traditional fishermen, there is no problem posed by boat fishing.

Hence, it is found that there are differences of opinion among fishermen in various districts why boat fishing does not affect traditional fishing. χ^2 test was applied to test whether the difference of opinion among fishermen in various districts was significant or not. The calculated value of χ^2 is 144.73. Since P value is very much less than 0.01 it can be proved that there is highly significant difference between the opinions of fishermen in various districts with respect to the ways in which boat fishing does not affect traditional fishing.

Among the respondents who argue that boat fishing does not affect traditional fishing, certain country craft fishermen stated that they are fishing in the inshore area unlike boat fishermen fishing from deeper waters. Hence, their fishing is not affected by boat.

Among the small (OBM) craft fishermen only 28.78 per cent have the opinion that boat fishing does not affect traditional fishing. Of this 28.78 per cent, 38.75 argue that boat fishes in deeper waters, while 35 per cent, say that traditional fishermen are also doing deep sea fishing, hence boat fishing does not create any problem to traditional fishing. Only 7.50 per cent of them believe that due to trawling ban, they have no problem with fishing by boat also.

Among the large (OBM) craft fishermen only 8.29 per cent believe that boat fishing does not affect traditional fishing. According to 35.29 per cent of them, they have no problem due to boat fishing since boats' catching are in deep waters, while 29.41 per cent say that no traditional fishermen are in existence as before. However, the percentage of respondents (17.65) who consider that due to trawling ban they have no problem with boat fishing is higher in case of large (OBM) craft than country and small (OBM) crafts.

The major class fishermen who believe that boat fishing does not affect traditional fishing are boat fishermen. According to 27.03 per cent of them

they are doing deep-sea fishing while another 27.03 argue that traditional fishermen are not affected due to trawling ban.

Only boat fishermen stated that they were fishing from the bottom of the sea as against traditional fishermen and hence their fishing did not affect traditional fishing. There are 21.62 per cent fishermen among boat users who believe that traditional fishermen are not inexistence.

In the category of fishermen who catch fishes with the help of more than one type of craft, 53.85 per cent stated that boat fishing did not affect traditional fishing, because traditional fishermen were not inexistence as before, and because they too did deep-sea fishing. However, 30.77 per cent of them consider that trawling ban and non-existence of traditional fishermen are the reason why boat fishing does not affect traditional fishing.

INNOVATION

The exploitation of fishery resources depends upon the equipment used for fishing. Traditionally the hand-driven country craft were used for fishing. Innovation in fishing was initiated with the implementation of Indo-Norwegian Project in 1953, with the result that mechanised fishing boats were used for fishing. Recently the motorised crafts have assumed a place between traditional country craft and mechanical boats. A large number of country crafts have already been motorised. And the motorised kerosene craft owners now want to use diesel engine crafts. Hence, there is a tendency among the

fishermen to renovate their fishing equipment. The major reasons for renovation are saving in fuel, low maintenance cost of engines, enabling deep-sea fishing to get more quantity and quality of fish etc. The response of the owners and partners towards the renovation of fishing equipment are shown in Table 5.06

TABLE 5.06

Willingness to Renovation

(Percentages)

Districts	No	Yes	Total
Calicut	68.25	31.75	100
Trissur	75.00	25.00	100
Malappuram	58.06	41.94	100
Kannur	57.89	42.11	100
Kasargode	72.22	27.78	100
Total	64.84	35.16	100

Source: Survey data

The above table shows that majority of the owners/partners do not want to renovate their fishing equipments. In all districts the percentage of respondents who do not want to renovate their crafts is more than that of those willing to renovate. Table 5.07 shows the various reasons for their unwillingness to renovation.

TABLE 5.07

Reasons for Unwillingness to Renovation

(Percentages)

District	Satisfied with present craft & gear	Lack of Funds	More fishing Expenses	Total
Calicut	23.26	48.84	27.90	100
Trissur	40.00	53.33	6.67	100
Malappuram	27.78	55.56	16.67	100
Kannur	12.12	87.88	0.00	100
Kasargode	66.67	33.33	0.00	100
Total	33.73	54 .82	11.45	100

Source: Survey data

The major reason for unwillingness to renovation is lack of funds. Only 33.73 per cent are satisfied with the present equipment and not ready to renovate. While 54.82 per cent are not renovating due to financial deficiency. There are 11.45 per cent fishermen who think that renovation may increase their fishing expenses.

In Kasargode 66.67 per cent do not want to renovate, as they are satisfied with their present craft while 33.33 per cent are not willing to renovate due to lack of funds. While in Kannur, only 12.12 are satisfied with the present craft and 87.88 per cent cannot renovate due to lack of funds. In Trissur and Malappuram more than 53 per cent fishermen are not ready for renovation due to lack of funds. In Calicut, 27.90 per cent believe that renovation leads to higher expenses on fishing and hence are not willing to

renovate. Nearly 49 per cent in Calicut stated that fund deficiency limits renovation.

Hence the major reason that restricts renovation is the lack of funds in all districts except in Kasargode, where majority are satisfied with their fishing equipment.

Since the reasons for unwillingness to renovation in various district are different, it is tested to see whether the difference is significant or not by using χ^2 test. The calculated value of χ^2 is 42.88. Since P value is very much less than 0.01, it can be proved that there is highly significant difference between the reasons for unwillingness to renovation in various districts.

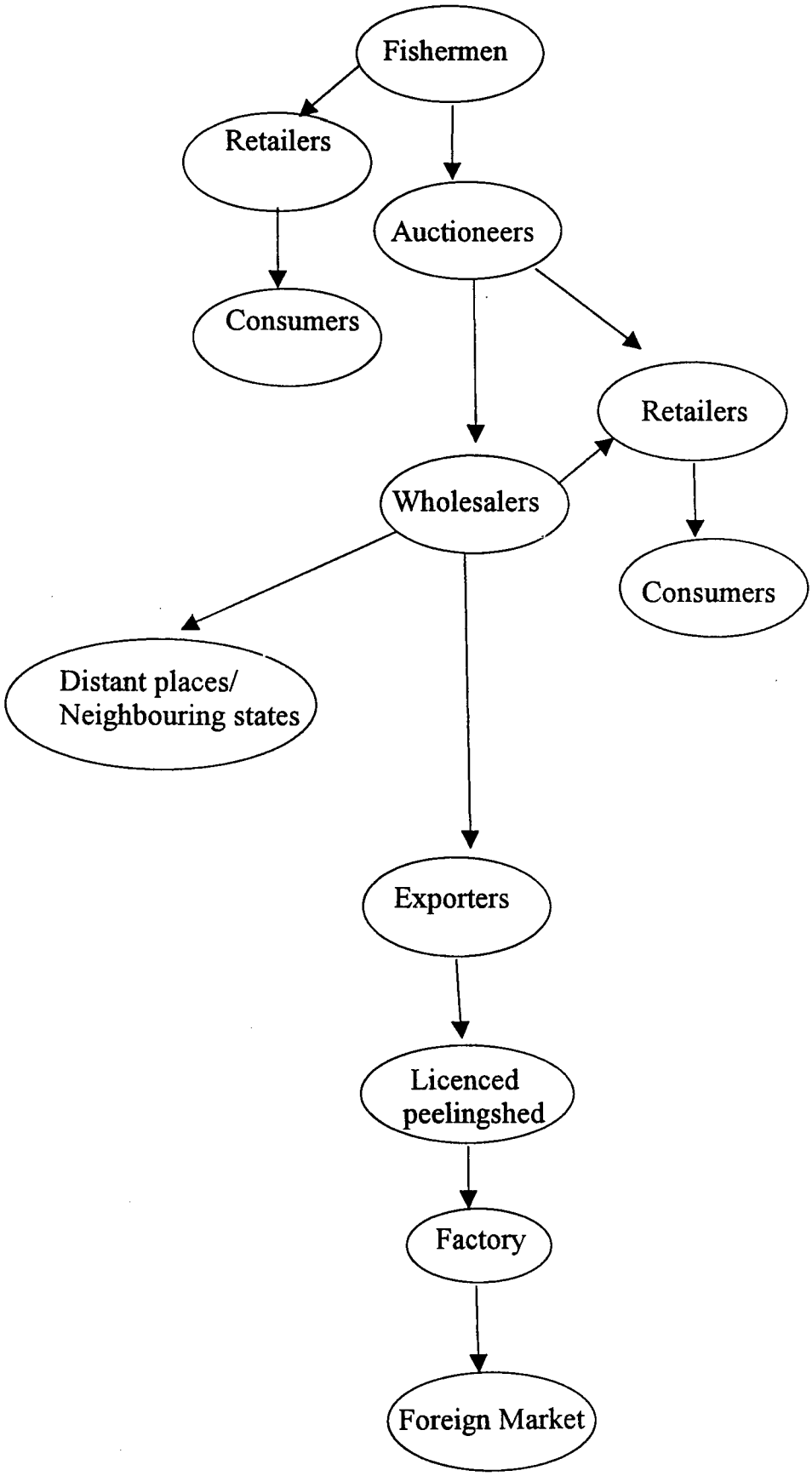
MARKETING

There are wide channels of intermediaries between the fishermen and the ultimate consumers. As soon as the fish caught is landed on the shore, it is sold to wholesalers and retailers through auctioneers. Auction implies that the fish is sold to the highest bidder. The retailers cart the fish as head load, or on cycles or two wheelers or goods autorickshaws be sold in the nearby market places. There are retailers who deliver the fish at the doorsteps of consumers.

Generally, the fish bought by the wholesalers are sent to distant markets. There are a few wholesalers who sell the fish to retailers to be sold to the consumers in the local market. When the catch contains exportable varieties like shrimps, cuttle fish etc., they are sold to exporters. The wholesalers have also facilities for salting and drying of fish.

Auctioneers and wholesales are the prime factors in fisheries marketing channels. There is a long chain of middlemen between the fishermen and ultimate consumer. This has resulted in lower income of fishermen and higher price for the ultimate consumer. Figure 5.01 depicts the marketing channels.

Fig. 5.01. Marketing channels



The auctioneer plays an important role as middleman between the fishermen and the merchant and performs the role of initiating and settling a bid. In this role, no one will dispute the fact that he is performing a useful service. His remuneration consists of the auction fee which is known as "Lela fee" from the fishermen. This fee usually amounts to 2 to 5 per cent of total sales value and is deducted from the advance paid by the merchant. The advance is paid only through the auctioneer.

The sample study reveals that majority of the fishermen sell their catch though auctioneers. There are two types of auctioneers on the beach. Private auctioneers and the auctioneers appointed by the Matsya Fed. In certain cases, the owner of crafts and gear himself acts as the auctioneer. Table 5.08 shows how the respondents sell their catch.

TABLE 5.08

Method of Sale of Catch by Fishermen

(Percentages)

Districts	Private Auctioneers	Matsya Fed Auctioneers	Direct Sale	Owner cum Auctioneer	Total
Calicut	90.50	5.50	4.00	0.00	100
Trissur	84.00	5.33	6.67	4.00	100
Malappuram	86.67	2.00	8.00	3.33	100
Kannur	88.00	4.00	8.00	0.00	100
Kasargode	70.00	28.00	2.00	0.00	100
Total	84.24	8.75	5.63	1.38	100

Source: Survey data.

Among the auctioneers, private auctioneers dominate in all districts. In Calicut district, 90.50 per cent of the respondents sell their catch through private auctioneers as against Kasargode district where 70 per cent of the respondents sell through private auctioneers. In Kasargode, the sale of catch by 28 per cent respondents' is through Fed auctioneers. In Malappuram District only 2 per cent of the respondents sell their catch through Matsya Fed auctioneers.

When the sale is through the auctioneer appointed by the Matsya Fed, the commission or fee to the auctioneer is 5 per cent of the sale value. But the auctioneer will get only 1.50 per cent, the remaining 3.50 per cent shared by the primary society and the Fed in the ratio of 2:1.5.

There are a few respondents in the region who sell their catch directly to the merchants without the intervention of auctioneers. This is generally seen in case of traditional fishermen who are using the non-motorized craft for their inshore fishing. Since the quantity of fish in this case is comparatively low, it is directly sold to retailers. In Kannur and Malappuram districts, 8 per cent of the respondents sell their catch directly, while in Kasargode district, only 2 per cent of the respondents sell directly.

In Trissur and Malappuram districts, the owner himself acts as the auctioneer. In Trissur, 4 per cent of the respondents and in Malappuram 3.33 per cent of the respondents effect the sale through the owner cum auctioneer.

Here also the owner may deduct his "Lela fee" ranging between 2-5 per cent depending upon the catch.

There is a difference in the method of sale in various districts. Hence it is tested to see whether the difference in the sale of catch in various districts was significant or not by using χ^2 test. The calculated value of χ^2 is 110.83. Since P value is very much less than 0.01, there is highly significant difference between the methods of sale of catch in various districts.

Instead of selling their catch directly, majority of the respondents are selling it through auctioneers. Hence, the respondents were asked to state the reason for the sale of catch through the auctioneers. Table 5.09 shows the various reasons for the sale of catch through auctioneers.

TABLE 5.09

Reasons for the Sale of Catch through Auctioneers

(Percentages)

Districts	Indebted-ness	Employ-ment	Know the Market trend	Owner's decision	Misce-llaneous	Indebted-ness + Know Market Trend	Indebted-ness + Owner's decision	Employ-ment + Know Market trends
	1	2	3	4	5	1+3	1+4	2+3
Calicut	38.02	1.04	4.17	10.94	15.63	6.77	11.98	11.46
Trissur	2.14	5.71	2.86	75.00	8.57	0.00	2.14	3.57
Malappuram	15.94	0.72	7.25	44.20	6.52	13.04	9.42	2.90
Kannur	26.09	2.90	9.42	31.88	11.59	7.25	8.70	2.17
Kasargode	14.97	4.76	34.01	14.29	22.45	4.76	0.00	4.76
Total	20.66	2.91	11.26	33.38	13.25	6.36	6.75	5.43

Source: Survey data

As seen earlier, of the total respondents, 5.63 per cent sell directly their catch to the merchant. The remaining 94.37 per cent of the respondents are selling their catch through auctioneers. Those who are working on the craft as labourers said that it were the owner of the craft who decided the sale of the catch. In the sample region, 33.38 per cent reported that it was the owners' decision to sell the catch through auctioneers. In Trissur district, 75 per cent respondents stated that it was owners' decision to sell it through auctioneers. In Malappuram district 44.20 per cent reported that it was owners' decision and that they had no role in the sale but bringing the catch to the seashore. In Kannur district, 31.88 per cent reported the sale was as per owner's decision.

In Calicut district 38.02 per cent of fishermen sell their catch through auctioneers due to the indebtedness to the auctioneer. In Kannur district, 26.09 per cent reported that indebtedness was the reason for the sale through auctioneer. This reason is very insignificant in Trissur district as only 2.14 per cent of the respondents say it as the reason for sale of catch. In Malappuram and Kasargode districts, 15.94 per cent and 14.97 per cent respondents respectively consider the indebtedness as the reason for sale through auctioneers.

Hence it is found that fishermen take loan from auctioneers either for consumption purpose during the lean period or for the purchase of fishing equipment. In such a case the fishermen are compelled to sell their catch

through the auctioneers and auctioneers have a right over the fishermen and their catch.

According to 11.26 per cent of the respondents, the role of auctioneers cannot be overlooked, as somebody must be there to know the market trends, while the catch lands the shore. In Kasargode, 34.01 per cent of the respondents consider the auctioneer as a link to know the market trend and hence the sale through him. Yet in Trissur district, only 2.86 per cent consider it as the reason for sale through auctioneer.

Only 2.91 per cent respondents consider that the sale through auctioneer is to give job for one more person. The highest percentage is 5.71 per cent, which is at Trissur, that consider employment as the reason for sale through auctioneers. In Malappuram, only 0.72 believe that one more person is getting a job through auctioneering.

Besides indebtedness, employment, knowing the market trend, and owner's decision, there are some other reasons why the sale is taking place through auctioneers. For instance, the wholesaler only contacts the auctioneer for transaction. So they are compelled to sell through auctioneers. The Fed appoints Matsya Fed auctioneers. Hence when the fishing equipment is purchased through Fed they may be compelled to sell the catch through the auctioneer appointed by the Fed. All these reasons are grouped under

"Miscellaneous reasons". In this region, 13.25 per cent are selling their catch through auctioneers due to these various miscellaneous reasons.

There are respondents in the region who sell their catches through auctioneers due to reasons which are the combinations of the first four. In the region, 6.36 per cent reported that both indebtedness and inaccessibility to the market trends make them sell their catch through auctioneers. The other 6.75 per cent make the sale through auctioneers due to indebtedness as well as the owner's decision. Another 5.43 per cent do so not only to know the market price but also to get job for one more person.

It is found necessary to prove statistically whether there is any significant difference or not as to the reasons why the sale of catch through auctioneers is made in various districts. The calculated value of χ^2 is 356.48. Since P value is very much less than 0.01, it is proved that there is a highly significant difference between the reasons for the sale of catch through auctioneers in various districts.

Since there are different methods of sale of catch in the sample region, the fishermen have been asked whether they face any problem in marketing of their catch. In the sample region 71 percent of the respondents reported that they had marketing problems. The highest percentages of respondents who have the problems of marketing are in Malappuram district (85.77 per cent)

and the lowest percentage of the respondents reporting about the problems of marketing are in Kasargode district (56 per cent).

Hence, it is found necessary to analyse the various marketing problems. Table 5.10 reveals the various problems of marketing reported by the respondents in various districts.

TABLE 5.10

Marketing Problems

(Percentages)

Districts	Auctioneer's Malpratices	Price fluctua-tions	Lack of storage facility	No spot pay-ment	Mal practices + Storage problem	Price fluctua-tion + Storage problem	Storage problem + No spot Payment	Total
	1	2	3	4	1 + 3	2 + 3	3 + 4	
Calicut	4.00	30.67	1.33	32.00	8.00	20.00	4.00	100
Trissur	2.94	8.82	41.18	23.53	2.94	0.00	20.59	100
Malappuram	4.55	13.64	0.00	45.45	18.18	0.00	18.18	100
Kannur	25.71	8.57	5.71	28.57	25.71	2.86	2.86	100
Kasargode	0.00	46.97	0.00	12.12	10.61	9.09	21.21	100
Total	6.03	27.16	7.33	25.86	11.64	9.48	12.50	100

Source: Survey Data.

In the sample region, 27.16 per cent consider price fluctuation as the only problem of marketing. In Kasargode, 46.97 per cent consider it as the only problem of marketing and another 9.09 per cent fishermen in the district consider price fluctuations and lack of storage facilities as the main problems of marketing.

Hence it is found that in Kasargode and Calicut, price fluctuation dominates over other problems of marketing. The prices of fishes are determined according to demand and supply. During peak season, supply of fish is so great that it normally fetches a depressed price for a large number of species of fish. Oversupply of fish may be due to sudden increases in catches or decreased demand at particular time and place.

In the sample area, there are 7.33 per cent who consider lack of storage facility as the only problem of their marketing. In Trissur, 41.18 per cent stated that their problem of marketing was lack of storage facility and another 20.59 per cent of fishermen in the district stated both lack of storage facility and no spot payment of catch prices are their problems of marketing. Hence, in Trissur there is acute problem of storage facility compared with other districts.

In Kannur district also, 25.71 per cent complain that their problem of marketing is lack of storage facility and auctioneer's malpractices. In short, in the sample area there is complaint about the lack of proper storage facility. Since fish is a perishable commodity, it has to be preserved by proper means for enhancing the marketability. The adequate supply of ice for freezing the fish is essential. Ice plants and storage facilities are not available near the landing centres. Moreover, artificial scarcity of ice is created by middlemen

and merchants so as to get the catch at cheaper price in case of oversupply of fish.

There are 6.03 percent fishermen in the region who complain that auctioneers cheat fishermen in many ways. In Kannur, 25.71 per cent have the only marketing problem that they are cheated by auctioneers, while another 25.71 per cent complain that they lack storage facility in the district and there are unfair practices on the part of auctioneers. Auctioneers who mediate between the fishermen and merchants are not neutral men. There are instances that they maintained some kind of link with merchants and the auctioneers might operate in favour of merchants.

Another important problem of marketing is that no spot payment is made for the sale of catch. Also there are instances, where price bidden is not paid in full at the time of settlement of money.

In the sample area, 25.86 per cent fishermen's complaint in marketing is that no spot payment is made for the catch at the time of sale. In Malappuram District, 45.45 per cent fishermen see this as the only problem of their marketing. While 18.18 per cent have both the problem of lack of spot payments and storage facilities. In Trissur also 23.53 per cent have problems due to lack of spot payment and another 20.59 per cent have the problems of no spot payment and lack of storage facility.

It is found that there is difference among fishermen in various districts as to their problems in marketing. χ^2 test was used to test whether there is significant difference in the various problems of marketing in different districts or not. The calculated value of χ^2 is 159.24. Since P value is very much less than 0.01, it is proved that there is highly significant difference between the marketing problems in different districts.

The forgoing discussions in this chapter revealed the various problems of fishermen in the State in catching and marketing fish. If these problems are left unattended the fishing industry will perish in the near future. The development of fishing industry highly depends upon the well being of the fishermen. Based on the analysis and discussion an attempt is made in the next chapter to give suitable suggestions to solve the problems of fishermen and to improve their socio-economic conditions in the State.

SUMMARY,FINDINGS AND SUGGESTIONS

Alavy Kutty P.M. “Socio-economic problems of fishermen in Kerala with special reference to malabar region” Thesis. Department of Commerce and Management Studies , University of Calicut, 2004

CHAPTER VI

SUMMARY, FINDINGS AND SUGGESTIONS

Fishing is an ancient activity of mankind. It has developed through centuries all over the world. Almost all countries and world institutions have fishery development programmes. Development of fisheries involves not only increased production, but also the socio-economic development of the people – fishermen – involved in production. But the stress in the fisheries sector has been mainly on the increase in production. Technological growth in the fisheries sector was primarily for increased production. Fishing crafts and gears improved over the years. Mechanisation and motorisation came to fishing. Modern gears like trawl nets, persiene nets, etc. came into fishing sector. In an underdeveloped country like India, revolutionary changes took place in the fisheries sector. Those people and groups who treated fishing as a mean profession came into fishing as capital providers, traders, etc. Fishing industry became one of the major industries both in terms of gross domestic product and foreign exchange.

Fisheries play a crucial role in the well being of the Kerala's economy. Kerala's coast line of 590 kms is only about one-tenth of the whole coast line of India. The inshore waters of about 16000 sq. kms in the State is estimated to yield, on a sustainable basis, 5.7 lakh tonnes of fish per annum or about 35

tonnes per sq. km as against the all India average of 13 tonnes per sq-km. This makes Kerala coastal waters most productive in the country. The marine fish production of Kerala constitutes one-fifth of the country's total.

In spite of its importance to the economy, the fishing community is one of the most backward classes both socially and economically. Although Kerala boasts high quality of life in the country as measured by the human development indicators, it is a fact that fishermen have been largely left out of the general development experience. The development of fisheries in Kerala too concentrated on maximisation of production through improved fishing equipment and the fishermen involved in this sector have been neglected. Fishermen constitute the backbone of the fishing industry and the growth and development of this industry depends on their social and economic well-being. The development programmes in this sector led to the unregulated entry of 'rich outsiders' in this caste-bound sector. The new entrants took the role of craft owners, middlemen, traders etc and the ordinary fisherfolk were unable to free themselves from their stranglehold.

The specific objectives set for the study are examination of social, economic, catching and marketing problems of fishermen and suggestions for improvement.

On the basis of the above objectives the following hypotheses have been formulated.

(i) Most of the households are getting educational aid from the Government for their children's education.

(ii) Fishermen do not want their children to be fishermen.

(iii) Majority of the fishermen do not have any savings.

(iv) Most of the fishermen are in debt.

(v) Mechanical boat fishing adversely affects traditional fishing.

The study has been designed as a descriptive one based on survey method. Both primary and secondary data have been used for this purpose. The secondary data have been collected from books, journals, newspapers, CMFRI, MPEDA, Directorate of Fisheries, CDS, Directorate of Economics and Statistics.

Primary data have been collected from fishermen personally using pre-tested structured schedule of questions. To analyse the collected data simple mathematical techniques like percentages and averages were used. The statistical technique χ^2 has been applied to analyse the two-way frequency tables.

A brief review of the literature indicates that some of the studies in India pertain to the growth of marine fishing in India, environmental pollution and its effects to marine fishing activity, shortcomings of fisheries co-operatives etc. In Kerala most of the studies are connected with technological changes in this sector. Further, no significant study has been done with

reference to Malabar region except the one by Mathur in Tanur village of the study area and that too on technological changes in the sector. In short, no comprehensive study has been carried on the socio-economic problems of fishermen in Kerala with special reference to Malabar Region. Hence the present study is carried on to fill this gap.

The whole study is presented in six chapters as shown in the introductory chapter.

The significance of fishing industry in Kerala lies in three main areas:-

(i) As a source of protein rich food for millions.

(ii) As a source of foreign exchange.

(iii) As a source of employment.

Owing to the unique features of the State like scarcity of food, increasing population, high density of population, development of non-food crops instead of food crops, fisheries has a significant role as an alternative source of food. The annual per capita consumption of fish in the State is 20.02 kg which is higher than the national average consumption. It is estimated that 70 per cent of the total fish production in the State is consumed internally. Moreover, the per capita availability of protein originating from fish is greater than that from milk, egg and meat. Unlike land resources, marine resources are extensive in nature and are renewable and replenishable year after year.

Kerala occupies a major position in the export of marine products in the country. Though the share of Kerala is coming down, export from the State was generally on an upward trend except during 1997-98, 1998-99, 2000-01 and 2001-02. During 2001-02 the share of Kerala in overall export of marine products from India was 17 per cent in quantity and 16 per cent in value. During 2001-02, the share of Kerala's export was 12.25 per cent of the fish landings in the State. As far as export from the State is concerned, European Union in the largest market accounting for 44.61 per cent by volume and 42.65 per cent in value during 200-02. Japan is the second largest market with a share of 12.29 per cent in quantity and 18.75 per cent in value. Shrimp is the principal commodity of export from the State constituting 38.52 per cent of total volume of export and 57.81 per cent of the total value of export from the State during 2001-02.

Since fishing is a labour-intensive activity, it can provide many employment opportunities in various sectors such as fish catching, processing, freezing, transporting, marketing, and allied activities. Present-day fishing is mechanised and motorised, hence it requires highly skilled and technically qualified persons for maintaining and servicing fishing equipments. The estimated marine population of the State is 8.28 lakh in 2001-02. Of this, Malabar region constitutes 43.92 per cent of the total marine population. The peculiar feature of Kerala's unemployment is that women job seekers are more by 12 per cent than men job seekers as per Employment Exchange

records. There is enough scope for employment of women in this sector compared with any other primary sector. Many industries associated with fisheries, like boat-building, net-making, construction of processing establishments, creating infrastructural facilities, etc. can also absorb many people for productive employment. The fishing industry must be given due importance to tackle the unemployment problem in the State as this industry can generate employment directly and indirectly.

One of the objectives of this study is to examine the social problems of fishermen in the Malabar region. With this end-in-view, the indicators like education, health, sanitation and drainage, drinking water, housing, recreation, social activities and fishermen's attitude towards their job are taken for study.

All the respondents in the sample region are fishermen who are actually going into sea for catching fish. Of these respondents, 32.63 per cent are illiterates, 56.38 per cent have primary education, 10.50 per cent have secondary education and only 0.50 per cent has college levels of education. Illiterate respondents are more in joint families than in nuclear families. However no respondent from a nuclear family has a collegiate education. Besides that of the respondents, the statuses of the education of the members of his family shows that 0.96 per cent of the primary school-going age are illiterates. While at the age of secondary education, 1.36 per cent are illiterates and at the age of graduation 1.53 per cent are illiterates. The age

group between 22-60 years is considered to be the main working group among the fishing community, in which 15.23 per cent are illiterates, 51.11 per cent have primary education, and only 0.09 per cent have college level education. Majority of the respondents want to educate their children up to the level the children are ready to study. However, 30.50 per cent respondents want their children to be educated up to 10^{th} standard and another 1.38 per cent to complete only 7^{th} standard. There are a few children who are not attending school. The main reason for not attending school is attraction to fishing.

For encouraging education among fishermen's children, the State Government has been providing financial assistance and 78.37 per cent of the households are getting such assistance. Besides, a few have received assistance for education from the Welfare Fund Board and social and religious organisations.

Among the fishermen households, only 6.50 per cent have any chronic and prolonged illness. Of this, 32.69 per cent have no treatment for their diseases. The main reason for lack of treatment is their poverty. Those who are having treatment received financial aid for their treatment from various sources. Of the patients who have treatment, only 13.46 per cent have got financial aid. When 42.86 per cent of financial aid was from religious

organisations, 28.57 per cent each of the aid was from Government and Welfare Fund Board.

Sanitation is an important indicator used to analyse the social conditions of fishermen. Of the sample households, 22.13 per cent do not have toilet facility. Among the joint families, 17.38 per cent do not have toilet and among nuclear households 27.37 per cent use open air for toilet purpose. Those with own toilet, 43.18 per cent have constructed it with financial aid. When 80.67 per cent of financial aid for toilet construction was received from Local bodies, 14.13 per cent was from the Government and 5.20 per cent was from the Welfare Fund Board.

Like the deplorable sanitary condition, 83.37 per cent do not have drainage facility. Of those with drainage facility, 51.13 per cent households have constructed it by themselves, while 48.12 per cent have drainage constructed by the Government. There are 0.75 per cent households whose drainage is made by a religious organisation.

Scarcity of drinking water is experienced by 33.63 per cent of the households. When 47.88 per cent have their own well for drinking water, 27.13 per cent rely on public taps, 8.50 per cent take water from public well and 6.25 per cent have water connection to their houses. Neighbour's well is the source of drinking water for 2.13 per cent of households. About 8 per cent households have more than one source for drinking water.

In all districts, except Kasargode, above 98 per cent of the households live in their own houses. In Kasargode, 11.33 per cent of the households are in rented houses. Of the sample households, 47.88 per cent are in tiled houses, 30 per cent are in thatched houses, 15.88 per cent are in terraced buildings and 6.25 per cent are in partly-terraced houses. Thatched houses and terraced houses are owned more by nuclear families than by joint families. While tiled and partly terraced buildings are more among joint family than nuclear households. The nature of their work compels the fishermen to stay very close to the sea; and their clustering settlement pattern limits the extent of land occupied by them. In the sample area, 47.80 per cent of the households have a land area of less than 5 cents for their owned houses.

Further, 52.13 per cent of the households have less than 3 rooms for their houses, 43.88 per cent households have 3-5 rooms. Fishermen houses are over crowded since 61.87 per cent of houses with less than 3 rooms have 5-10 members, and 11.27 per cent houses with less than 3 rooms have 10-15 persons. Even in a house of 3-5 rooms, 25.36 per cent have occupancy of 10-15 persons, 6.34 per cent houses with 3-5 rooms have 15-20 persons and 1.15 per cent houses with 3-5 rooms have above 20 persons.

In the sample area, 33.20 per cent are living in inherited houses, remaining 66.80 per cent are dwelling in houses constructed by the household itself. Though there are several housing schemes by the Government for

fishermen, only 26.51 per cent households received the government assistance for housing construction. While others used their own savings, bank loans, loans from friends and relatives and various other sources for house construction.

Another basic amenity related to housing is electricity. In the sample area, 38.50 per cent of the households have no electricity connection.

In the sample households, 28.63 per cent have no household durables, and 40.25 per cent have only a portable radio or a two-in-one.

The leisure time spending of the fishermen reveals that when they are back home after fishing they are mainly occupied in repairing their nets damaged during fishing. During leisure hours, a few are engaged in household work. Though reading is not popular among fishermen, watching T.V. and movie are popular among fisherfolk.

The social activities of the fishermen show that 60.50 per cent have connections with political organizations. Though most of them are believers in religions only 30.13 per cent have connection with religious organisations. Only 6.25 per cent have connection with some cultural organisation. There are 2.50 per cent fishermen who are connected with the organisation and working of educational institutions.

The attitude of the fishermen towards their job is seen when 76.38 per cent of the respondents want to continue the job. Of this 79.21 per cent are compelled to continue the job since no alternative is available to them. Only 18.99 per cent prefer to continue fishing due to the attraction of fishing. There is 0.82 per cent who knows only fishing that makes them do fishing. And 0.98 per cent is bonded to the owner of fishing equipment due to the debt to him.

In the sample area 23.63 per cent do not want to continue the job. Of this 80.42 per cent want to keep away from fishing due to insufficient income. Other reasons that do not permit them to continue the job is ill health and the risk involved in fishing.

Their attitude towards fishing is further revealed when most of them suggested jobs other than fishing to their children. Only 10.88 per cent suggested fishing job for their children, while 22.25 per cent outrightly suggested any job other than fishing. There were 15.75 per cent respondents who did not have any suggestion of job to their children; rather they left to it to their children. When 21.33 per cent proposed government job, 14 per cent proposed to their children job in gulf countries. However, only 6.25 per cent suggested business for their children. Some miscellaneous jobs were also suggested by 9.75 per cent of the respondents.

Another important objective of the study is to examine the economic problems of fishermen in the Malabar region. In order to examine the economic conditions of fishermen, the indicators used are ownership of fishing equipments, income, expenditure, saving, debt and membership in the Welfare Fund Board.

The fishing craft used for fishing are mainly grouped into four categories, viz., country craft, small (OBM) craft, large (OBM) craft and mechanical boat. Mechanical boat fishing is not so common among the fishermen in this region. Majority of the fishermen go for fishing in motorised crafts. However, there are 2.62 per cent respondents in the region using more than one type of craft for fishing.

In the sample area, 67.88 per cent of the respondents are not owners of crafts and gears but labourers. When 20.38 per cent are owners of crafts and gears, 11.13 per cent own them in partnership. There are 0.63 per cent respondents who use the fishing equipments on a lease basis.

Since fishing is a seasonal occupation, a few fishermen are engaged in some subsidiary occupation. In the sample area, 89.25 per cent respondents have no subsidiary occupation. However, 3.75 per cent are engaged in net repairing, 3.63 per cent in fish vending, 1.63 per cent in fish curing, one per cent in mussel collections and 0.74 per cent in some odd jobs.

In the sample area, 84.25 per cent of respondents have an annual income below Rs.24,000. Of this, 34.25 per cent respondents have an annual income below Rs.12,000. Similarly, 48.25 per cent households have no income from fishing other than the respondents' income. In the nuclear family 72.37 per cent households have only respondent's income while 73.57 per cent joint family has income from fishing contributed by their family members also.

In addition to the income from fishing, some of the members of the respondents' family are also engaged in some other occupations and they derive certain income from these occupations. However, above 80 per cent of the households have no income from sources other than fishing.

There are 17.75 per cent households who have salary income. But in this, 2.38 per cent households' annual income from salary is below Rs.5000, 5.13 per cent households' annual income from salary is between Rs. 5000-10000 and 6.75 per cent households have salary income between Rs. 10000-20000 per annum.

Another source of income of the household is land. But, only 13 per cent of the households have land income in the region and that too is mainly in the northern districts of Kannur and Kasargode. On this land income of households, 1.75 per cent households have land income below Rs.1000 per annum, 2.50 per cent households have an annual income from land between

Rs.1000-2000 and 4.63 per cent households have agricultural income between Rs. 2000-4000 annually.

The remittances from the gulf job are another source of income of fisherfolk. But, only 12 per cent of the households in the sample area have income from the gulf. Malappuram and Kasargode districts are leading in the gulf jobs of the fishing community from the districts in Malabar. In the region, 6.50 per cent households have annual remittances from gulf between Rs.20000-40000. Only 0.50 per cent households in the sample area have remittances beyond Rs.60,000 per annum.

Certain members of fishing community are also working as fish merchants and derive certain income from it. But only 7.50 per cent households have fish merchant members in the family. On this, 6.50 per cent households have annual income from fish vending up to Rs. 10000, in which 3.50 per cent households' income from fish vending is below Rs.5000 per annum.

A few members of the fishing community in the region are also working as small traders, telephone booth operators, beedi makers, auto-drivers etc and they get a little income out of it. But only 11.75 per cent of the households have members engaged in these types of occupations. The income from these miscellaneous occupations shows that 2.25 per cent

households have annual income below Rs.5000 and 5.63 per cent households have annual income between Rs.5000-10000.

The income derived by the households from fishing as well as from other sources is being spent to meet their household expenses. The household expenditures are mainly grouped into three categories. Firstly, primary expenditures for meeting primary needs of food, clothing, medical and educational expenses. Secondly, the expenses on marriage and other religious ceremonies. Thirdly, the miscellaneous expenses of thatching the houses, fencing, electricity and telephone charges, etc.

The primary expenditures vary according to the number persons in each household. In a household of less than 5 persons, 36.84 per cent have annual primary expenses between Rs.10000-20000 while 42.76 per cent have expenses between Rs.20000-30000. In a household of 5-10 persons, the annual primary expenditures vary between Rs.20000-30000 for 27.10 per cent households, Rs.30000-40000 and Rs.40,000-50000 for 27.53 per cent household each. In a household of 10-15 persons, 45.21 per cent have the primary expenditures between Rs.40000-50000 while 30.14 per cent have primary expenses between Rs.50,000-75,000. In the household of 15-20 persons, 86.67 per cent have primary expenses between Rs.50000-100000. While in a household of above 20 persons, majority of their primary expenses ranges between Rs.75000-100000.

In the sample area, 78 per cent of the households are spending a certain amount annually on auspicious occasions like marriages and religious festivals. These expenditures vary from district to district and the amount ranges from Rs.1000 to above Rs.2,00,000.

The miscellaneous household expenditures include thatching of houses, fencing, electricity, telephone charges etc. These expenditures are much more among the households with thatched houses than other types of houses since they have to incur annual thatching expense on their houses. In the region, 77.50 per cent of the thatched households have to incur annual miscellaneous expenses between Rs.1000-4000. While 79.11 per cent of tiled households, 83.46 per cent of terraced households and 96 per cent of partly terraced households are incurring below Rs.1000 annually for meeting their miscellaneous expenses, mainly owing to electricity charges.

Besides household expenses, the fishermen have to incur occupational expenses. These expenses are classified into two viz., recurring and non-recurring. Recurring expenses are on fuel, food while fishing and to buy ice for preserving the catch. They are to be met per trip or day. Recurring expenses are much more in the case of motorised crafts and mechanical boat than country craft. About 50 per cent of country crafts are not incurring any recurring expenses, and 23.46 per cent country crafts are incurring recurring expenses below Rs.100, while 75.83 per cent of small (OBM) crafts have

recurring expenses between Rs.500-1000. But in the case of large (OBM) craft 71.43 per cent have these expenses between Rs.6000-7000 per trip. In the case of mechanical boat 75 per cent have recurring expenses between Rs.2000-6000 per trip. The recurring expenses are deducted from the catch price and only the balance is divisible between the owner and crew, in a proportion agreed upon by them.

Non-recurring occupational expenses include cost of repairing, maintaining and replacing of crafts engine and gear. The owners of the fishing equipment generally meet these expenses. In the case of country craft, 98.77 per cent have annual non-recurring expenses between Rs.500 and 10000, while in the case of small (OBM) crafts, 94.17 per cent have annual non-recurring expenses between Rs.500 and 20000, of which 70 per cent have expenses between Rs.500 and 10000. In the case of large (OBM) craft, 66.67 per cent have non-recurring expenses between Rs.5000 and 200000 per annum and 11.90 per cent have expenses beyond Rs.200000 per annum. In the case of mechanical boats, 25 per cent have annual non-recurring expenses between Rs.20,000-50,000 and 66.67 per cent have expenses ranging Rs.50000-200000 per annum.

Majority of the fishermen have the habit of savings, since 72.13 per cent of fishermen have some kind of savings. The most important method of saving is the SRS introduced by the State Government. In the sample area, 44.37 per cent have only SRS. However, 23.40 per cent have SRS and

chitties and 15.77 per cent have SRS and deposits in banks or post office. The higher percentage of savings among the fishermen is mainly due to the SRS of the Government.

In order to meet primary as well as occupational expenses, fishermen borrow funds from various sources. In the sample area, 67.50 per cent of the fishermen are in debt. Their main source of borrowing is the co-operative banks. Besides, there are 18.52 per cent fishermen who have availed of loan from craft owners, auctioneers, moneylenders and local bodes. They are grouped under "other sources". Next to other sources, fishermen borrow from friends and relatives. 18.52 per cent of the fishermen have borrowed only from friends and relatives. Some fishermen have taken loan from two sources and a few even from three.

The purpose for which the loans are taken is grouped into three categories viz., primary, secondary and occupational purposes. Primary purposes include loan for livelihood, house construction and repairs, toilet construction, medical and marriage expenses, and for repayment of old debts. In the region, 58.70 per cent of the loans are for meeting their primary expenses alone. Only 9.07 per cent of the total loan constitutes the secondary purpose alone, which includes loans for purchasing T.V., refrigerator, business purpose, for advancing money to help friends and relatives, and for going abroad. The loan for occupational purposes is for buying fishing

equipment, repairing and maintaining them, etc. In the sample region, 14.81 per cent of the loans are for occupational purposes alone and 70.37 per cent of the loan from the Matsyafed is for occupational purposes only.

The loan amount of fishermen ranges from Rs.2000 and goes beyond Rs.200000. In the sample area, 60.93 per cent of the borrowers are within the loan bracket of Rs.10000-50000 and 24.25 per cent have loan amount between Rs.50000 and Rs.200000.

Of the total borrowers, only 46.11 per cent are making some repayment towards their debt and the remaining 53.89 per cent are contributing nothing towards settling the debt. The percentage of annual repayment is very little. Even a debt of Rs.2000-5000 requires a repayment period of above 12 years in the normal case since the average annual repayment is about 8 per cent of the debt. If the loan amount is above Rs.200000 it will take 40 years to discharge the loan since the average annual repayment is about 2.50 per cent of the debt. However, if an abnormal catch is received by the fishermen, the loan may be discharged at an earlier date.

For the economic well being of the fishermen, fishermen Welfare Fund Board was established, and 86.75 per cent of the respondents are members of the Board. However, 13.25 per cent of the respondents have no membership in the Board. The major reason for lack of membership is lack of interest in taking membership. Next to lack of interest, economic backwardness

prevents them from taking membership. However 16.98 per cent's application for membership has been rejected by the Board and 15.09 per cent applied for membership; while 6.60 per cent were pensioned off as they attained the age of 60 years.

The discussion on social and economic problems of the fishermen reveals that the fishermen are one of the socially and economically backward communities.

The rate of illiteracy among the fishermen is higher. Even among the literate members of this community, majority have education up to primary level only. Though majority of the children are attending school, they drop out of school at an early age of secondary level.

Sanitary and drainage conditions are deplorable; 22.13 per cent do not have toilet facility and 83 per cent have no drainage facility. Scarcity of drinking water affects 33 per cent households. Scarcity of drinking water is more in areas where they depend on public tap and public well for drinking water.

Of the sample households, 30 per cent are living in thatched houses and have to incur annual expenses for thatching the huts. Further, 38.50 per cent do not have electricity. Standard of living among fishermen is very low since 28.60 do not have any household durables and 40.25 per cent have only the portable radio or two-in one.

Majority of the respondents do not own fishing equipment and they work as labourers. Most of the fishing equipments are capital-intensive requiring high cost of fuel and maintenance charges.

Fishing is a seasonal occupation, and during off-season they do not have any subsidiary occupation.

Their annual income is not sufficient to meet even the primary expenses and about 48 per cent have only the income of the respondents.

Since mechanisation and motorisation increased the fishing expenses, if the catch price is not sufficient to meet the fishing expenses, fishermen are not ready to operate the craft.

Majority of the fishermen have the habit of savings only due to the SRS introduced by the Government.

Majority of the fishermen are in debt and that too mainly incurred for meeting primary expenses. Co-operative banks are their main source of loan. Besides, the fishermen borrow from various other sources like auctioneers, craft-owners, moneylenders etc. Loan from craft owners compel them to work for the owner until the debts are paid off. Loan from auctioneers compel them to sell the catch through the auctioneers. Fishermen are not in a position to repay the debt regularly and the extent of repayment is very small leading to a longer period of repayment of debt.

Besides, they have fish catching and marketing problems. The most important factor affecting the fishing is rough weather, rocks in the sea and fishing by boats and ships. In the sample area, 11 pr cent craft owners have suffered capital losses due to rough weather, rocks in the sea and boat fishing.

Majority of the fishermen complain that boat fishing affects traditional fishing. Complainants are mainly country craft users and motorised craft fishermen. Even among boat fishermen, 40.32 per cent admit that their fishing adversely affects traditional fishing.

The main complaint against boat fishing is that the trawling by boat destroys fish fry and eggs. Night fishing by boat causes fishes to go into deeper waters. Boat fishing causes capital losses to the owners of vallam by destroying their nets. A few boats are fishing in the inshore areas which are set apart exclusively for the use of traditional fishermen.

Those who are in favour of boat fishing argue that the fishing by boat does not affect traditional fishing as boats are doing deep-sea fishing. Others argue that traditional fishermen are not inexistence as before, since traditional fishermen also go into deeper waters with the help of motorised crafts. Due to trawling ban during monsoon, fishing by boat does not affect traditional fishermen. A few argue that unlike traditional fishermen, boat catches from the bottom of the sea.

There are 35.16 per cent owners of fishing crafts who want to renovate their equipment for saving in fuel, maintenance cost and enabling deep sea fishing to get more quantity and quality of fish. However, 64.84 per cent are not ready to renovate their equipment. Of this, 33.73 per cent are not ready to renovate since they are satisfied with present craft and gear. Others want to renovate but the lack of funds and increased fishing expenses constraints the renovation.

Intermediaries play a dominant role in the marketing of fish. Majority of the fishermen sell their catch through auctioneers. In the sample area, 84.25 per cent of sale is through the private auctioneers and 8.75 per cent through the auctioneers appointed by the Fed. In certain cases, the owner of the craft and gear himself is acting as the auctioneer. Direct sale of catch is generally by the small fishermen using country craft and fishing in the inshore areas.

The major reason for the sale through auctioneers is that the owner decides the sale and the crew have no role in it. Next to owner's decision, indebtedness to the auctioneer compels them to sell through auctioneers. There is also opinion that sale through auctioneers enables to know the market trend. The sale of catch through auctioneers is also necessitated by the fact that wholesalers contact the auctioneers in the market. When fishing

equipment is purchased from Fed, then in certain cases, they are selling the catch through Fed auctioneers.

The major problems experienced by fishermen in marketing of fishes are the lack of spot payment for the catch, price fluctuations, lack of storage facilities and malpractices of auctioneers. Lack of spot payment leads to reduction in payment at the time of settlement. Auctioneers are not neutral and they operate in favour of merchants.

Results of hypotheses testing

The hypotheses set for the study have been tested and the results are as follow.

The first hypothesis that "most of the households are getting educational aid from the Government for their children's education" is found true and accepted.

The second hypothesis that "the fishermen do not want their children to be fishermen" is found true and accepted.

The third hypothesis that "majority of the fishermen do not have any savings" is found not true and rejected.

The fourth hypothesis that "most of the fishermen are in debt" is found true and accepted.

The fifth hypothesis that "the boat fishing adversely affects traditional fishing" is found true and accepted.

Suggestions

1. Government and voluntary organisations like Nehru Yuva Kendra must create educational awareness in the fishing community.

2. Seats in educational institutions must be reserved for the higher education of children of bonafide fishermen.

3. Besides the present sanitation facilities implemented through local bodies, the National Service Schemes in colleges can also adopt fishing villages for providing sanitation and drainage facilities to fishermen.

4. Proper repair and maintenance of public tap and public well must be made to reduce scarcity of drinking water.

5. The Government assistance for the construction of houses must be implemented through local bodies and the assistance should be given even if the title of the property is in the name of the mother of the bonafide fishermen.

6. Libraries, recreation clubs, etc. must be provided in fishing villages since many of the fishermen have no association with cultural and social organisations.

7. There should be provision for arrangement of supplying fuel sufficiently and in a timely manner at subsidised rate.

8. Government may establish training centres to train fishermen to learn the skill of repairing the OBM used in the craft. It will reduce the maintenance cost.

9. The monthly contribution of SRS by fishermen may be enhanced.

10. A Fisheries Bank must be established for providing all round assistance to fishermen.

11. The Kerala Marine Fisheries Regulation Act must be strictly enforced to restrict the operation of mechanical boat in the inshore areas.

12. Government should declare minimum support prices for commercially important fishes.

13. Fisheries co-operative societies must be strengthened to restrict the role of middlemen in marketing.

The development of fishing industry is dependent upon the socio-economic well being of the fishermen. If the socio-economic problems of the fishermen are left unattended, the industry will perish in the near future.

The present study has been rather an exploratory peep. There is ample scope for further research on the role of various institutions engaged in the

socio-economic development of fishing community. A study on the role of Kerala Fishermen's Welfare Fund Board in providing the welfare schemes may be undertaken. There is also scope for further study in the administrative failures and problems in implementing various government programmes by the Fisheries Department.

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APPENDIX 1

Land Use Pattern in Kerala (hectares)

Sl. No.	Classification of Land	1992-93		2001-02		Changes in area between 1992-93 & 2001-02	
		Actual	%	Actual	%	Actual	%
1.	Total geographical area	3,885,497		3,885,497			
2.	Forest	1,081,509	27.83	1,081,509	27.83	0	
3.	Land put to non-agricultural uses	302,798	7.79	392,352	10.10	89,554	29.58
4.	Barren and uncultivated land	55,229	1.42	29,728	0.77	-25,501	-46.17
5.	Permanent pastures & grazing land	1,699	0.04	233	0.01	-1.466	-86.29
6.	Land under miscellaneous tree cops not included in net area sown	35,054	0.90	13,613	0.35	-21,441	-61.17
7.	Cultivable waste	91,233	2.35	63,771	1.64	-27,462	-30.10
8.	Fallow other than current fallow	27,404	0.71	34,331	0.88	6.927	25.28
9.	Current fallow	41,978	1.08	79,270	2.04	37,292	88.84
10.	Net area sown	2,249,593	57.90	2,190,690	56.38	-58,903	-2.62
11.	Area sown more than once	796,878	20.51	801,562	20.63	4,684	0.50
12.	Total cropped area	3,046,471	78.41	2,992,252	77.01	-54,219	-1.78

Source: Department of Economics & Statistics, Government of Kerala, Trivandrum.

APPENDIX II

Population and Its Growth form 1901 to 2001

Census Year	All India		Kerala	
	Population (In lakhs)	Decadal Growth Rate	Population (In lakhs)	Decadal Growth Rate
1901	2383.9	-	63.9	-
1911	2520.9	5.75	71.5	11.75
1921	2513.2	-0.31	78.0	9.16
1931	2789.8	11.00	95.1	21.85
1941	3186.6	14.22	110.3	16.04
1951	3610.9	13.31	135.5	22.82
1961	4392.3	21.64	169.0	24.76
1971	5481.6	24.80	213.5	26.69
1981	6833.3	24.66	254.5	19.24
1991	8433.9	23.86	290.9	14.32
2001	10270.2	21.34	318.4	9.42

Source: Department of Economics and Statistics, Government of Kerala, Trivandrum

APPENDIX III

District-wise distribution of Coastline and Continental shelf are of Kerala

Sl. No.	Marine District	Length of coastline (in kms.)	Share in %	Continental Shelf Area (sq. kms.)			Share in %
				0-50 m	50-200 m	Total	
1.	Thiruvananthapuram	78	13	1551	2624	4175	11
2.	Kollam	37	6	1206	1683	2889	7
3.	Alappuzha	82	14	2100	2681	4781	12
4.	Ernakulam	46	8	1057	1126	2183	6
5.	Thrissur	54	9	1300	1667	2967	8
6.	Malappuram	70	12	2269	2827	5096	13
7.	Kozhikode	71	12	2494	3586	6080	15
8.	Kannur	82	14	2290	3962	6252	16
9.	Kasargode	70	12	1726	2990	4716	12
Total		590	100	15993	23146	39139	100

Source: Directorate of Fisheries, Govt of Keala, Trivandrum.

APPENDIX IV

Marine Fish Production in India and Kerala and the Percentage growth rate from 1980-2001

(Quantity in lakh tonnes)

Year	Kerala	Growth %	India	Growth %	Percentage share of Kerala
1980	2.80		12.50		22.40
1981	2.74	-2.14	14.45	15.60	18.96
1982	3.26	18.98	14.27	-1.25	22.85
1983	3.86	18.40	15.19	6.45	25.41
1984	3.93	1.81	17.79	17.12	22.09
1985	3.33	-15.27	17.34	-2.53	19.20
1986	3.36	0.90	17.08	-1.50	19.67
1987	2.83	-15.77	16.52	-3.28	17.13
1988	3.75	32.51	17.75	7.45	21.13
1989	6.18	64.80	22.30	25.63	27.71
1990	6.78	9.71	23.00	3.14	29.48
1991	5.40	-20.35	24.47	6.39	22.07
1992	5.53	2.41	25.76	5.27	21.47
1993	5.59	1.08	26.49	2.83	21.10
1994	5.49	-1.79	26.52	1.62	20.39
1995	5.33	-2.91	27.07	0.56	19.69
1996	6.61	24.02	29.67	9.60	22.28
1997	5.11	-22.69	29.50	-0.57	17.32
1998	5.82	13.89	27.00	-8.47	21.56
1999	5.94	2.06	28.20	4.44	21.06
2000	5.67	-4.55	28.00	-0.71	20.25
2001	5.94	4.75	29.00	3.57	20.48

Source:

1) Economic Review - State Planning Board - Govt. of Kerala, Trivandrum, various issues
2) Economic Survey - Government of India - Various issues.

APPENDIX - V

Species-wise Marine Fish Landings in Kerala from 1992-93 to 2001-02

(Quantity in Tonnes)

Sl. No.	Name of Fish	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	Average
1.	Elasmorbranchs	3849	5204	5521	3467	4455	3955	3831	3681	2683	2991	3964
2.	Cat fishes	744	681	483	392	255	211	214	127	98	150	336
3.	Chirocentrtrus	1073	1899	1218	867	1671	1070	1445	214	214	252	992
4.	Oil sardines	35993	45663	1422	18529	53978	72007	115519	158368	195144	169851	86647
5.	Other sardines	18629	20884	16871	45752	8066	15568	26805	20946	23668	96831	29402
6.	Anchovilla	51649	45986	30033	36956	31071	27841	28245	25347	21825	34925	33388
7.	Trissocies & Other clupeids	34728	17691	19594	13969	27958	15399	17385	10351	23710	14948	19573
8.	Perches	56022	73986	58616	47139	78047	37613	42477	36431	49589	30212	51013
9.	Redmullets	4720	1337	348	124	86	184	302	105	64	1544	881
10.	Sciaenids	17929	12976	18183	8363	17932	12252	10630	7729	1418	8863	11628
11.	Ribbon Fishes	7440	7794	14002	4355	23132	18281	16397	17401	8379	18364	13555
12.	Carangids	87151	70962	57862	104365	69219	42439	66539	41778	45768	50109	63609
13.	Leiognathus	5846	4881	4162	3468	5399	4537	5245	6298	4114	5046	4900
14.	Lactarius	621	991	1146	546	2222	1897	3058	1539	1430	3839	1729
15.	Pomfrets	2789	2802	3057	1698	4068	2338	2635	1868	746	1379	2338
16.	Mackerel	34995	62406	110569	79864	142814	66945	61744	86530	30667	42446	71898
17.	Seer fishes	8783	7040	4359	6525	4649	4274	5310	2915	4798	2326	5098
18.	Tunnies	15597	13606	13398	12173	16827	15363	14320	19807	14072	1104	13627
19.	Soles	23993	21284	19718	11958	20819	18034	13356	19782	15187	7946	18208
20.	Prawns	42376	51621	70345	41150	56091	56382	52869	59782	57912	56445	54497
21.	Other crustaceans	197	359	136	89	121	253	260	651	217	0	228
22.	Cephalpods	44066	48720	54403	52973	57301	51943	41760	44139	40084	16033	45142
23.	Miscellaneous	53983	40431	43364	37828	34772	42301	42158	27931	24784	28179	37573
	Total	553173	559204	548810	532550	660953	511087	582404	593720	5 66571	593783	570226

Source: Directorate of Fisheries, Government of Kerala, Trivandrum

APPENDIX - VI

Export of Marine Products from Kerala *vis-à-vis* India
(1992-93 to 2001-02)

Q : Quantity in Metric Tonnes
V : Value in Rs. Crore

Year		All India	Kerala	Share of Kerala (%)
1992 - '93	Q	209025	49094	23
	V	1768	414	23
1993 - '94	Q	243960	63848	26
	V	2503	622	25
1994 - '95	Q	307337	74653	24
	V	3575	817	23
1995 - '96	Q	296277	78895	26
	V	3501	856	24
1996 - '97	Q	378199	92288	24
	V	4121	936	22
1997 - '98	Q	385818	89366	23
	V	4697	948	20
1998 - '99	Q	302934	70641	23
	V	4627	817	18
1999 - '00	Q	343031	92148	27
	V	5117	1148	22
2000 - 01	Q	440473	88852	20
	V	6444	1046	16
2001 - 02	Q	424470	72756	17
	V	5957	951	16

Source:" Directorate of Fisheries - Govt. of Kerala, Trivandrum.

APPENDIX - VII

Marine Fish Landings and their Export from Kerala during 1992-93 to 2001-02

(Quantity in Tonnes)

Year	Quantity of Landings	Quantity of Export	% Share of Export in Landings
1992-93	553173	49094	8.87
1993-94	559204	63848	11.42
1994-95	548810	74653	13.60
1995-96	532550	78895	14.81
1996-97	660953	92288	13.96
1997-98	511087	89366	17.49
1998-99	582404	70641	12.13
1999-00	593720	92148	15.52
2000-01	566571	88852	15.68
2001-02	593783	72756	12.25

Source: Directorate of Fisheries, Government of Kerala, Trivandrum.

APPENDIX - VIII

Market-wise Export of Marine Products from Kerala

(Quantity in Tonnes & Value in Rs. Crores)

Sl. No.	Market	1999 – 2000				2000 - 01				2001 - 02			
		Qty	% to total	Value	% to total	Qty.	% of total	Value	% to total	Qty	% to total	Value	% to total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Japan	13228	14.36	260.76	22.73	9310	10.48	189.09	18.07	8939	12.29	178.2	18.75
2.	USA	15465	16.78	248.72	21.69	13384	15.06	230.86	22.06	10435	14.34	166.3	17.50
3.	European Union	35413	38.43	419.93	36.61	29228	32.9	369.38	35.30	32456	44.61	405.53	42.65
4.	China & Hong Kong	15438	16.75	89.09	7.77	24123	27.15	126.92	12.13	5550	7.63	63.66	6.70
5.	S.E. Asia	5463	5.93	51.94	4.53	6364	7.16	51.48	4.92	8773	12.06	61.78	6.50
6.	Middle East	2573	2.79	30.94	2.70	2110	2.37	30.38	2.90	2191	3.01	27.02	2.84
7.	Others	4568	4.96	45.58	3.97	4333	4.88	48.36	4.62	4412	6.06	48.06	5.06
	Total	92148	100.00	1146.96	100.00	88852	100.00	1046.47	100.00	72756	100.00	950.55	100.00

Source: Marine Products Export Development Authority, Cochin.

APPENDIX - IX

Item-wise Export of Marine Products from Kerala

(Qty. in M.T., Value in Rs. Crore)

Sl. No.	Item	1992 - 93				2000 - 01				2001 - 02			
		Qty	% to total	Value	% to total	Qty.	% to total	Value	% to total	Qty	% to total	Value	% to total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Frozen Shrimp	24155	49.20	263.44	63.59	28300	31.85	596.76	57.03	28023	38.52	549.48	57.81
2.	Frozen Fish	4203	8.56	16.80	4.06	24956	28.09	97.8	9.35	11200	15.39	55.38	5.83
3.	Frozen cuttle fish	7631	15.54	53.82	12.99	14475	16.29	154.74	14.79	13818	18.99	153.21	16.12
4.	Frozen Squid	11422	23.27	62.78	15.16	14915	16.79	139.01	13.28	12319	16.93	115.18	12.12
5.	Others	1683	3.43	17.41	4.20	6206	6.98	58.16	5.55	7396	10.17	77.30	8.12
	Total	49094	10.00	414.25	100.00	88852	100.00	1146.47	100.00	72756	100.00	950.55	100.00

Source: Marine Products Export Development Authority Review - various issues.

APPENDIX - X

District-wise Distribution of Fishermen Population in Kerala (2001 - 2002)

District	Marine				Inland				Marine & Inland
	Male	Female	Children	Total	Male	Female	Children	Total	Total
1	2	3	4	5	6	7	8	9	10
Thiruvananthapuram	52106	50450	71643	174199	452	478	473	1403	175602
Kottayam	31257	28863	37649	98039	11397	10864	13385	35646	133685
Alappuzha	36232	35043	45087	116362	21372	29623	22797	64792	181154
Pathanamthitta					604	736	1075	2415	2415
Kottayam					8559	8366	9022	25947	25947
Idukki					329	249	233	811	811
Ernakulam	24613	23828	27307	75748	22816	22819	21963	66968	142716
Thrissur	22436	22713	27734	72883	6823	6694	7198	20715	93598
Palakkad	-	-	-	-	753	851	1111	2715	2715
Malappuram	24646	25212	33733	83591	1447	1438	1672	4557	88148
Wayanad	-	-	--	-	94	88	100	282	282
Kozhikode	32409	31237	39515	103161	3984	3864	4743	12591	115752
Kannur	17968	17093	23237	58268	2324	2263	2220	6807	65075
Kasargod	14731	14190	16781	45702	335	319	336	990	46692
State	256668	248599	322686	827953	81289	79652	86328	246639	1074592

Source: Directorate of Fisheries - Govt. of Kerala - Trivandrum.

APPENDIX - XI

SOCIO-ECONOMIC PROBLEMS OF FISHERMEN IN KERALA WITH SPECIAL REFERENCE TO MALABAR REGION

INTERVIEW SCHEDULE FOR FISHERMEN

0.0. Panchayat / Muncipality / Corporation

0.1. Nature of Family : Nuclear/Joint family

1.1. Education:-

Sl. No.	Members	M/F	Age	Illiterate	Primary Education	Secondary Education	College Education	Others

1.2. How much education would you like to give your children

0. No Children ☐
1. Less than 7th std ☐
2. Complete 10th std ☐
3. Complete degree in college ☐
4. Complete any professional degree ☐
5. Upto they are ready to study ☐

1.3.	If your children (below 14 years) are not attending school, state reasons	0.	N.A	☐
		1.	Poverty	☐
		2.	Over importance to 'Madrassas'	☐
		3.	Attraction to fishing	☐
		4.	Constant failures in classes	☐
		5.	Other reasons (Specify)	☐
1.4.	Have you got any aid for education	1)	Yes	☐
		2)	No	☐
1.5.	If 'yes' please mention the source	1)	Govt.	☐
		2)	Fishermen's Welfare Fund Board	☐
		3)	Social/Religious Organisations	☐
		4)	Others (Specify)	☐
2)	**Health**			
2.1	Does any member of your family suffers from any chronic and prolonged illness	1)	Yes	☐
		2)	No	☐
2.2	If 'yes' state the nature of illness	1)	Cancer	☐
		2)	Heart diseases	☐
		3)	Filaria	☐
		4)	Lunacy	☐
		5)	Rheumatism	☐
		6)	Paralysis	☐
		7)	Leprosy	☐
		8)	Others (Specify)	☐
2.3.	Are your getting any medical treatment	1)	Yes	☐
		2)	No	☐
2.4.	If 'No' state reasons	1)	Poverty	☐
		2)	Incurable	☐
		3)	Others (Specify)	☐

2.5.	Do you get any financial aid for the treatment	1)	Yes	☐
		2)	No	☐
2.6.	If 'yes' mention the source	1)	Govt.	☐
		2)	Welfare Fund Board	☐
		3)	Social/Religious Organisation	☐
		4)	Other (Specify)	☐
3.	**Sanitation**			
3.1.	Nature of toilet facility	1)	Open air	☐
		2)	Own toilet	☐
3.2.	If the answer is "own toilet" did you get any financial aid for the toilet construction	1)	Yes	☐
		2)	No	☐
3.3.	If the answer is 'yes' mention the source	1)	Govt.	☐
		2)	Welfare Fund Board	☐
		3)	Local bodies	☐
3.4.	Provision of drainage facility	1)	Yes	☐
		2)	No	☐
3.5.	Mention the agency providing the drainage facility	1)	Own	☐
		2)	Govt.	☐
		3)	Social/Religious organisation	☐
		4)	Others (Specify)	☐
4.	**Drinking water**			
4.1.	Do you have the scarcity of drinking water	1)	Yes	☐
		2)	No	☐
4.2.	Mention the sources of drinking water	1)	Own well	☐
		2)	Public well	☐
		3)	Own tap	☐
		4)	Public tap	☐
		5)	Neighbour's well	☐

5. Housing

5.1.	Indicate the nature of tenancy	1)	Rented	☐
		2)	Owned	☐
5.2.	Type house	1)	Thatched	☐
		2)	Tiled	☐
		3)	Terraced	☐
		4)	Partly terraced	☐
5.3.	The area of land in which the owned house is built	1)	Less than 5 cents	☐
		2)	5-10 cents	☐
		3)	10-15 cents	☐
		4)	15-20 cents	☐
		5)	20-25 cents	☐
		6)	Above 25 cents	☐
5.4.	State the number of Rooms	1)	Less than 3 rooms	☐
		2)	3-5 rooms	☐
		3)	Above 5 rooms	☐
5.5.	How did you raise funds for house construction	1)	Inherited property	☐
		2)	With savings	☐
		3)	Govt. aid	☐
		4)	Bank loan	☐
		5)	Loans from friends and relatives	☐
		6)	Other sources (Specify)	☐
5.6.	Whether your house is electrified	1)	Yes	☐
		2)	No	☐
5.7.	State the articles in the house	1)	Radio and Tape recorder	☐
		2)	T.V.	☐
		3)	Refrigerator	☐
		4)	Telephone	☐
		5)	Two wheeler	☐
		6)	Others (Specify)	☐

6.	**Recreation**			
6.1.	How do you spend the leisure time	1)	Net repairing	☐
		2)	Household work	☐
		3)	Reading	☐
		4)	Watching T.V., movie	☐
		5)	Playing cards	☐
		6)	Chit-chatting	☐
7.	**Social Activities**			
7.1.	Connection with political organisations	1)	Yes	☐
		2)	No	☐
7.2.	Connection with Religion Organisations	1)	Yes	☐
		2)	No	☐
7.3.	Connection with cultural organisations	1)	Yes	☐
		2)	No	☐
7.4.	Connection with Educational Institutions	1)	Yes	☐
		2)	No	☐
8.	**Attitude Towards the Job:**			
8.1.	Do you want to continue the occupation	1)	Yes	☐
		2)	No	☐
8.2.	If 'yes' state reasons	1)	No alternative job	☐
		2)	Attraction to the job	☐
		3)	Only knows fishing	☐
		4)	Debt to the owner	☐
		5)	Others (Specify)	☐
8.3.	If 'No' state the reasons	1)	Insufficient income	☐
		2)	Ill health	☐
		3)	Strenuous and risky job	☐
		4)	Others (Specify)	☐

8.4.	State the occupation you want your children to follow	1)	Fishing	☐
		2)	Govt. Job	☐
		3)	Business	☐
		4)	Gulf job	☐
		5)	Not fishing	☐
		6)	Children's like	☐
		7)	Other jobs (Specify)	☐
9.	**Method of fishing:**			
9.1	State the Method fishing you adopt	1)	Country craft	☐
		2)	Small (OBM) craft	☐
		3)	Large (OBM) craft	☐
		4)	Mechanical boat	☐
9.2.	State the nature of ownership of craft and gear	1)	Owner	☐
		2)	Partner	☐
		3)	Labourer	☐
		4)	On Rent	☐
9.3.	Please state your subsidiary occupation	1)	Nothing	☐
		2)	Fish curing	☐
		3)	Net repairing	☐
		4)	Fish vending	☐
		5)	Mussel collection	☐
		6)	Others (Specify)	☐
10.	**Income**			
10.1.	State your average annual income	1)	Below Rs.12000	☐
		2)	Rs.12000-24000	☐
		3)	Rs.24000-36000	☐
		4)	Rs.36000-48000	☐
		5)	Rs.48000-60000	☐
		6)	Above Rs.60000	☐

10.2. State the average family income from various sources:

Sl. No.	Sources of income	No. of persons engaged	M/F	Average Annual Income
1.	Fishing			
2.	Salary			
3.	Land income			
4.	Gulf job			
5.	Fish Merchants			
6.	Others _____ (Specify)			

11. Expenditures:

11.1. Approximate household Expenditures (Annually)

(a) Food _____
(b) Clothing _____
(c) Medical _____
(d) Education _____
(e) Marriage and religious ceremonies _____
(f) Others ..... (Specify)

11.2 Occupational Expenses

(a) Recurring Expenses (daily/per trip)

Fuel ----------
Food ----------
Ice ----------

(b) Non-Recurring Expenses (Annually)

1. Repair and maintenance of craft ----------
2. Gear Repairs ----------
3. Engine repair & maintenance ----------
4. Others (Specify) ----------

12. Savings

12.1. Do you save

1) Yes ☐
2) No ☐

12.2. State the method of savings you adopt

1) Deposits in bank/ post office ☐
2) Chitties ☐
3) Saving & Relief Scheme ☐
4) Others (Specify) ☐

13. Debt

13.1 Are you in debt

1) Yes ☐
2) No ☐

13.2. If 'yes' fill the following:

Sl. No.	Sources of Loan	Amount of Loan	Purpose	Annual Loan Repayment
1	Commercial Bank			
2	Co-operative Bank			
3	Matsya Fed			
4	Friends & Relatives			
5	Auctioneers			
6	Money lenders			
7	Local Bodies			
8	Owners			
9	Others (Specify)			

14. Fishermen's Welfare Fund Board

14.1 Are you a member in the Welfare Fund Board

1) Yes ☐
2) No ☐

14.2. If "No" state reasons:

1) Applied for Membership ☐
2) Not interested ☐
3) Not approved by the Board ☐
4) Economic Backwardness ☐
5) Pensioned off ☐
6) Others (Specify) ☐

15. Catching

15.1. State the factors adversely affecting your fishing

1) Rough weather ☐
2) Govt. Policies ☐
3) Sea rocks ☐
4) Boats & ships ☐

15.2 Causes of Loss for craft and gear during the last year

1) Rough Weather ☐
2) Sea rocks ☐
3) Boat fishing ☐

15.3 Does mechanical boat fishing adversely affects traditional fishing

1) Yes ☐
2) No ☐

15.4 If 'yes' how it affects

1) Destroys fry and eggs ☐
2) Destroys nets of vallam ☐
3) Fishing in the inshore areas ☐
4) Night fishing ☐
5) Species depletion ☐

15.6 It 'not' what are the reasons?

1) Deep-sea fishing by boat ☐
2) Boat fishes from the bottom of the sea ☐
3) Traditional fishermen are not inexistence ☐
4) Trawling ban ☐

16. Innovation:

16.1 Do you want to renovate your craft and gear:

1) Yes ☐
2) No ☐

16.2. If "not" state reasons:-

1) Satisfied with the present craft and gear ☐
2) Lack of funds ☐
3) More fishing expenses ☐

17. Marketing:

17.1. How do you sell your catch?

1) Through Private Auctioneer ☐
2) Through Fed Auctioneer ☐
3) Direct sale ☐
4) Others (Speicyf) ☐

17.2. State the reason for sale through the auctioneer

1) Indebtedness ☐
2) Employment ☐
3) To know the market trend ☐
4) Owner's decision ☐
5) Other (Specify) ☐

17.3. Do you have any problem in the marketing of fish

1) Yes ☐
2) No ☐

17.4. If 'Yes' state the problems:-

1) Auctioneer's malpractices ☐
2) Price fluctuations ☐
3) Lack of storage facility ☐
4) No spot payment ☐
5) Others (Specify) ☐