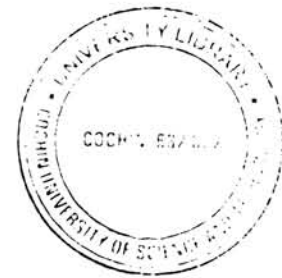


**IMPLICATIONS OF GOVERNMENT SPONSORED SOCIAL
SECURITY AND WELFARE SCHEMES ON SOCIOECONOMIC
STATUS OF SMALL SCALE MARINE FISHERFOLK IN KERALA**

**Thesis submitted to the
Cochin University of Science and Technology
for the award of the degree of
DOCTOR OF PHILOSOPHY
Under the Faculty of Social Sciences**

**By
K.M. SUPRABHA
(Reg. No. 2593)**



**Under the supervision of
Prof. (Dr.) K.C. Sankaranarayanan**
Former Head, Dept. of Applied Economics &
Former Dean, Faculty of Social Sciences
Cochin University of Science and Technology



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CERTIFICATE


This is to certify that the thesis entitled "**IMPLICATIONS OF GOVERNMENT SPONSORED SOCIAL SECURITY AND WELFARE SCHEMES ON SOCIOECONOMIC STATUS OF SMALL SCALE MARINE FISHERFOLK IN KERALA**" is a bonafide research work carried out by K. M. Suprabha under my supervision and guidance. The thesis is approved by the Doctoral Committee for submission for the degree of Doctor of Philosophy in Commerce under the faculty of Social Sciences.

Prof. (Dr.) K.C. Sankaranarayanan

DECLARATION

I declare that the thesis titled **“IMPLICATIONS OF GOVERNMENT SPONSORED SOCIAL SECURITY AND WELFARE SCHEMES ON SOCIOECONOMIC STATUS OF SMALL SCALE MARINE FISHERFOLK IN KERALA”** is the record of bonafide research work carried out by me under the supervision of Prof. (Dr) K.C. Sankaranarayanan, former Head of the Department of Applied Economics and former Dean, Faculty of Social Sciences, Cochin University of Science and Technology, Kochi-22, submitted for the partial fulfillment of the requirement for the Degree of Doctor of Philosophy. I further declare that this thesis has not previously formed the basis for the award of any Degree Diploma, Associateship, Fellowship or other similar title of recognition.

30.09.2008
Kochi-22



K. M. Suprabha

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Chapter 1

Introduction

CHAPTER 1

INTRODUCTION

Earth, having two-thirds of its surface with water is providing food and nourishment to human race from time immemorial. The evolution of man through different phases has not attenuated the importance of fishing. Based on a fair estimate, up to three tonnes of produce can derive from plants and animal bodies from an acre of seawater; and on an acre-to-acre basis, sea area is more productive than arable land ¹.

A close examination of the actions of low-income communities shows the extent of their dependency on natural resources for their livelihood. The coastal fishing communities are one such sector, which mainly depends on natural marine resources for their livelihood. The growth from the aboriginal hooks to the modern net and craft narrates the growth of fishery. Nevertheless, the growth of fishers is not on par with the growth of fishery. They are striving for existence in the absence or in want of allocation of resources in an equitable manner.

1.1 World Fishery

The natural capitals of the world's marine and terrestrial systems are estimated to provide services and goods worth US\$433 trillion annually². Other than food production, marine ecosystem services

include disturbance regulation, such as storm protection and flood control; nutrient cycling; provision of wildlife refugia; raw materials; recreation and cultural services. As such, 36 percent of the total value of global ecosystem services – an estimated US\$412 trillion per year- is contributed by coastal areas.

The marine resources are not evenly distributed across the 362 million square kilometer area of the ocean. Some regions have higher biological productivity. In fact, around 65 percent of the living resources of the oceans are concentrated in the near shore zone, which accounts for 6 percent of the total ocean area. Much of the vast ocean area far from land is virtually an aquatic desert ³.

Data from the Food and Agricultural Organization of the United Nations show that ‘...of the more than 51 million fishers in the world, over 99 percent are small-scale fishers. 250 million people in developing countries are directly dependent upon the fisheries for food, income, and livelihood; and that some 150 million people in developing countries depend on marketing, boat building and gear making. Fisheries provide 16 percent of the world population’s protein and that figure is considerably elevated in some developing nations and in regions that depend heavily on the sea ⁴.

The data further show that total world capture fisheries production in 2000 was 86 million tonnes. Global production from capture fisheries and aquaculture and the food fish supply are currently the highest on record and remain very significant for global food security; providing more than 15 percent of total animal protein supplies. The top producing countries are China, Japan, The United States, Chile, Indonesia, Russia, India, Thailand, Norway and Iceland. China remains by far the largest producer, with reported fishery production of 41.6 million tonnes in 2000 (17 million tonnes from capture fisheries and 24.6 million tonnes from aquaculture), providing an estimated food supply of 25 kg per capita. China alone accounted for a third of the world's production. Employments in the primary capture fisheries and aquaculture production sectors have remained relatively stable since 1995, and about 35 million people in 2000. Of this, 65 percent were in marine capture fisheries. International trade in fish products has again increased to a new record of US\$55.2 billion, continuing the last decade's underlying 4 percent annual growth in fisheries trade. Net export trade from developing countries increased from US\$10 billion in 1990 to US\$18 billion in 2000, corresponding to a real (corrected for inflation) growth of 45 percent ⁵.

1.2 Indian fishery

India is the seventh largest fishing nation of the world with an exclusive Economic Zone (EEZ) of 2.02 million square kilometers. The 3

million marine fishermen population is living in 7, 56,212 fishermen households spread over 3,202 fishing villages. There are 8,89,528 active fishermen of which 7,17,999 has fishing as a fulltime occupation. Indian fisheries sector contributes an annual per capita supply of 3.3 kilograms of animal protein food and about 3 percent of total export earnings ⁶.

The FAO Sofia Report 2004 states that in general the Western Indian Ocean is 75 Percent fully exploited. Up to 25 Percent of the resources are overexploited. Regarding the Eastern Indian Ocean the report claims that around 28 Percent of the resources are moderately exploited, around 57 Percent are fully exploited, and 15 Percent are overexploited.

Table 1.1 and Chart 1.1 give details regarding the fishing area available in the Indian EEZ.

Table 1.1.

Fishing Area in Indian EEZ

Zone	Depth (in meter)	Area (Million square km.)	Distribution (percentage)
Inshore	0-50	0.02	10.2
Offshore	50-500	1.81	89.8
Total	2.02		100

Source: Sudarsan and others, (1991), Sudarsan D. et al. Charters Fishing Vessels Operations in Indian EEZ and Annual Reports of FSI.

Chart 1.1 Fishing Areas in Indian EEZ

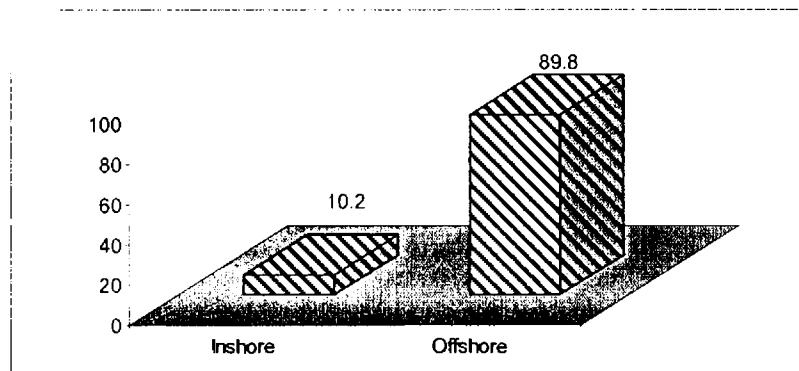


Table 1.1 and chart 1.1 give an account of the fishing area available in the India EEZ. About 10.2 percent of the total areas have a depth below 50 metres. It is around 0.02 million square kilometres. The remaining 89.8 percent have a depth of 50 to 500 metres. It is around 1.81 million square kilometres. It is the most fertile oceanic area concentrated by fishing crafts of small-scale fisherfolk.

Sudarsan and others estimated a resource potential of 3.52 million tonnes from the Indian EEZ. Of this, the inshore water (0.50metres), 10 percent in area of the EEZ possesses an estimated exploitable potential of 58 percent (2.28 million tonnes). The rest, 1.64 million tones, are scattered over a very large area of (89 percent of EEZ) off shore waters (50-500 metres.)⁷.

Table 1.2 and chart 1.2 reveal the resources potential in the Indian EEZ.

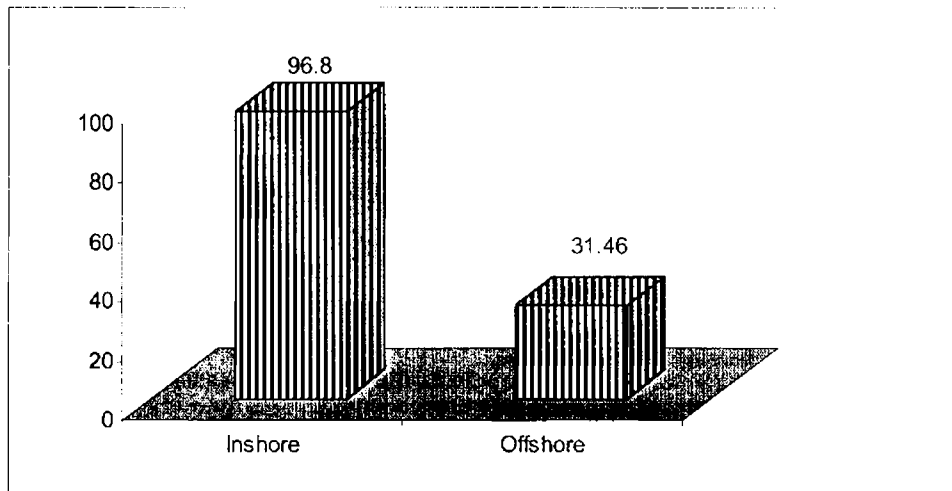
Table 1.2.

Fishery Resources in Indian EEZ

Zone	Resource potential (million tones)	Level of exploitation (percentage)	Availability (Million Tonnes)
Inshore	2.28	96.8	0.07
Offshore	1.64	31.46	1.125
Total	3.92		

Source: Sudarsan and others, (1991) FSI

Chart 1.2. Fishery Resources in Indian EEZ



In-shore resource potential of 2.28 million tonnes were exploited to the extent of 96.8 percent. For further exploitation only 0.07 million tonnes are available in the in shore region. The 1.64 million tones of deep-sea resources comprise of 45.25 percent pelagic stock, 39.8

percent demersal stock, and 15 percent of oceanic species. Of the offshore resources, 1.125 million tonnes is available for further exploitation. The Deep Sea Fishing Policy, 1991 seeks to facilitate the exploitation of these resources ⁸.

Table 1.3 and chart 1.3 show fish production in India during the past ten years.

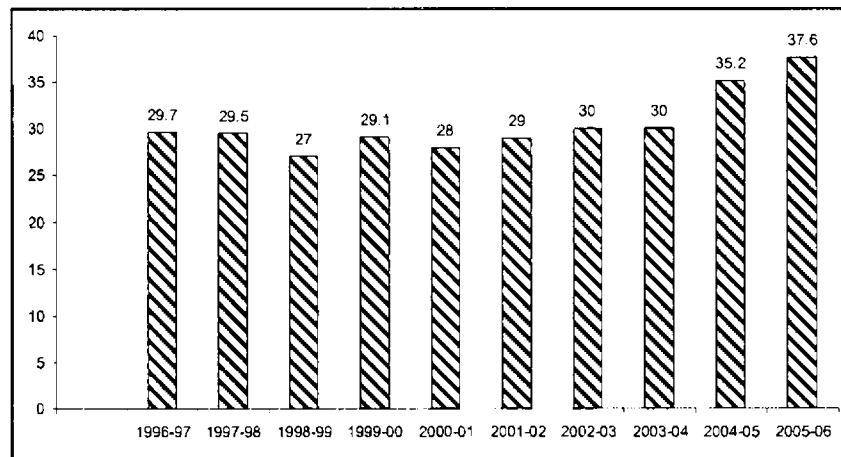
Table 1.3

Fish Production in India

Year	Quantity (lakh tonnes)
1996-97	29.7
1997-98	29.5
1998-99	27.0
1999-00	29.1
2000-01	28.0
2001-02	29.0
2002-03	30.0
2003-04	30.0
2004-05	35.2
2005-06	37.6

Source: Department of Animal Husbandry, Dairying and Fisheries,
Economic Survey of India, various issues

Chart 1.3. Fish Production in India



It shows a gradual increase, except in the year 1998-99. In 1996-97, the marine production of India was 29.7 lakhs tonnes. It was increased to 37.6 lakhs tonnes in the year showing an absolute increase of 7.9 lakhs tonnes during the ten-year span ending in 2005-06

Table 1.4 and chart 1.4 present data with respect to export of marine products from India since 1996.

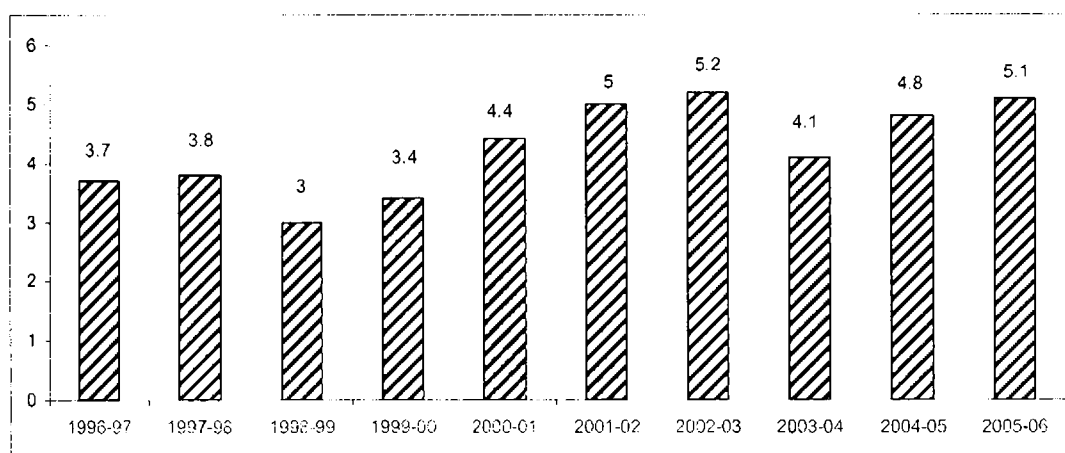
Table-1.4.

Export of Marine Products

Year	Quantity (lakhs tonnes)	Value (Rs. Crores)
1996-97	3.7	4121
1997-98	3.8	4697
1998-99	3.0	4626
1999-00	3.4	5117
2000-01	4.4	6444
2001-02	5.0	6288
2002-03	5.2	6793
2003-04	4.1	6086
2004-05	4.8	6460
2005-06	5.1	7245

Source: Department of Animal Husbandry, Dairying and Fisheries,
Economic Survey of India various issues.

Chart 1.4. Export of Marine Products



It indicates the changing trend of Indian marine exports. In the year 2001-02, there was a decline in export in value. Again, in the year 2003-04 it showed a decline in value and quantity. Next year, it increased to 4.8 million tonnes but not reached to the value or quantity achieved in the year 2002-03. However, 2005-06 shows an increase which is higher in value and quantity vis-à-vis the preceding ten years.

1.3 Kerala Fishery

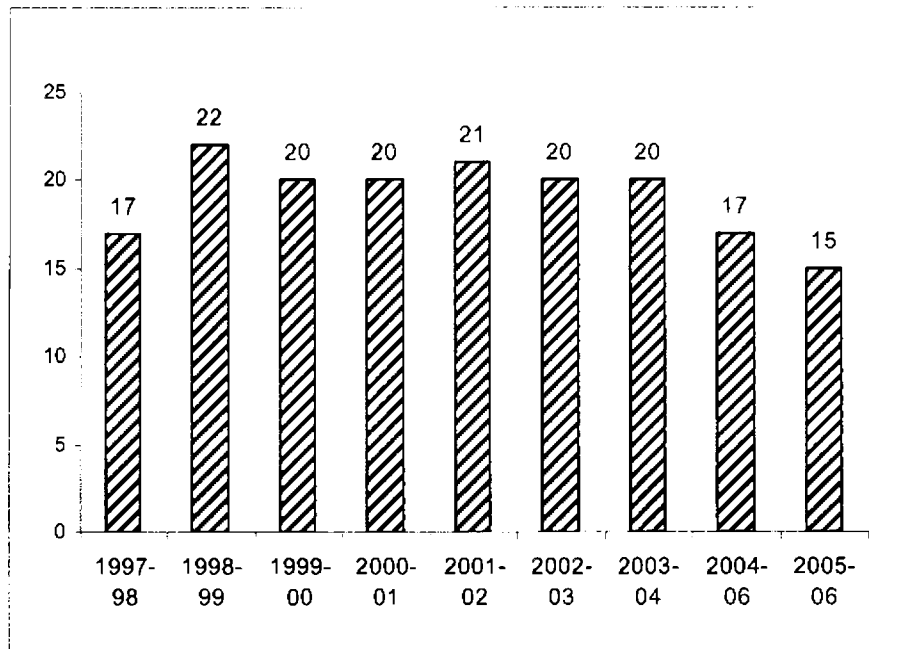
Kerala coast is the most fertile area of the Arabian Sea. It consists of 590 kilometres of coastline distributed in nine districts out of 14. Table 1.5 and chart 1.5 show marine fish production in Kerala during ten years starting from 1996 to 2006.

Table 1.5.
Marine Fish Production in Kerala

Year	Quantity (Lakhs tonnes)Kerala	Percentage Kerala to India
1996-97	6.61	N.a
1997-98	5.11	17
1998-99	5.82	22
1999-00	5.94	20
2000-01	5.67	20
2001-02	5.94	21
2002-03	6.03	20
2003-04	6.08	20
2004-05	6.02	17
2005-06	5.59	15

Source: Economic Survey of India - various issues, Directorate of fisheries, Economic Review of Kerala - Various issues.* Department of Animal Husbandry Dairying and Fisheries, Web Site: <http://indiabudget.nic.in>,

Chart 1.5. Marine Fish Production in Kerala



Share of Kerala in the total Indian marine production fluctuated between 15 to 22 percent during the period under consideration.

Table 1.6.

Export of marine products from Kerala

Year	Quantity (metric tonnes) Export Kerala	Value (Rs.in Crores)	Share of Kerala in percentage In value
1996-97	92288	936	22
1997-98	89366	956	20
1998-99**	70641	817	18
1999-00**	92148	1148	22
2000-01	88852	1046	16
2001-02	72756	951	16
2002-03	81393	1046	15
2003-04	76627	1099	15
2004-05	87378	1158	17
2005-06	97311	1258	19

Source: Economic Review-various issues ** Fisheries Statistics of Kerala, 2005

Chart 1.6. Export of Marine Products from Kerala

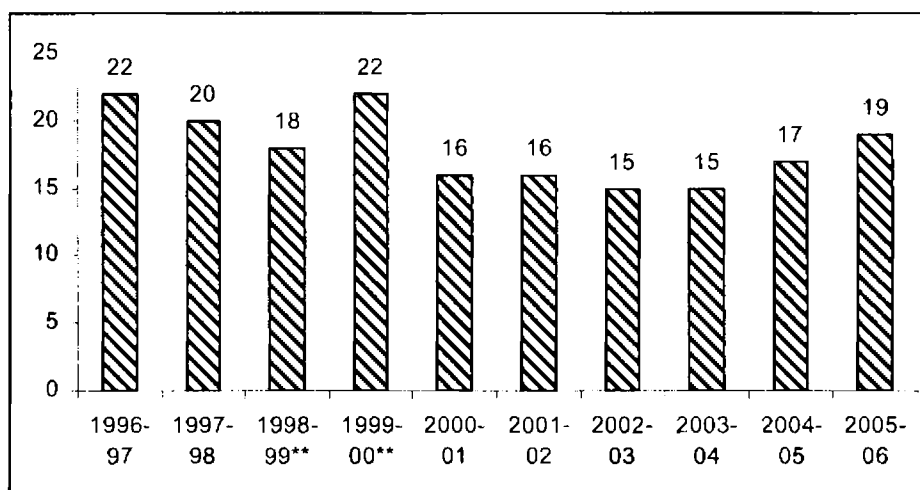


Table 1.6 and chart 1.6 give the details of export made from Kerala in value and quantity terms. It is clear from the table that share of Kerala is fluctuating between 15 and 19 percent during the period 2000-01 to 2005-06.

Addressing a press conference in Kochi, MPEDA (Marine Products Export Development Authority) chairman G Mohan Kumar said that seafood exports registered a 12.7Percent increase in dollar terms in 2006-07 and touched a level of \$1,852.93 million. In rupee terms, the exports stood at Rs 8,363.53 crores, registering a 15.4Percent increase over the previous year Similarly, the quantity of exports increased by 19.6Percent to touch a level of 6,12,641 tonnes. At the same time, it is expected to achieve \$2 billion seafood sales by 2008 and \$6 billion by 2015 by launching a campaign to build brand equity in the United States, European Union., and Japan. The domestic seafood export

industry is likely to achieve an export value of \$2 billion in the 2007 and \$4 billion by the end of 2012.⁹

1.4 Research Problem

The fishery resources are renewable, and hence need to be managed carefully in order to ensure continued supply of fish to the people, create gainful employment opportunities, promote exports and livelihoods of the people dependent on fisheries and prevent overexploitation and sectoral conflicts.

In his report, R.N.Roy states that in the mid-seventies, it was quite reasonable to look at fisheries and fisherfolk development as finding ways of increasing production. Fisherfolk, particularly artisanal and traditional fishers, were using inefficient craft and gears, and therefore were not catching enough. Therefore, if technology could be developed to enable small-scale fishers to catch more or grow more of the right type of fish, and earn more, they would be on the way to development¹⁰.

At the same time, developmental efforts have focused almost exclusively on large-scale fisheries, presumably on the belief that small-scale fisheries were only a temporary feature of transition from artisanal to industrial fisheries. Nevertheless, small fisheries are not a transitory

feature of fisheries development and they contribute almost half of the world fish catch.

Livelihood of poor coastal fishing communities are seriously threatened due to fast degrading coastal fisheries resources and decrease of inshore fish stocks. Some of the common characteristics of coastal fishing communities are that they are highly disadvantaged and resource poor, uneducated and an extremely exploited class of the coastal communities. Fishers generally work as laborers for wages in boats owned by others, and they have virtually no role in the marketing of their produce (in most cases the catch is owned by the boat owners).

They have no access to institutional credit and most of them remain in debt to the less regulated agents. Fishing communities tend to be highly disorganized and without access to support and extension services due to remote location of their dwellings. Fishers are highly prone to natural disasters and accidents at sea, and must leave their families uncared for at least six months of a year where women members have to take up all of the responsibilities of running the households, including caring for elders and children. The fishing communities hardly have any knowledge, skills, resources or opportunities for other means of livelihood¹¹.

In India, even after several years of planned development, the central government has not formed an independent ministry for fisheries sector. Fishery is only a subsection of agriculture, though it is one of the important sectors, which gives employment, earns foreign exchange and provide animal protein to the poor masses. Different ministries, departments or agencies are working for the fisheries sector with different objectives, or with the same objectives but with different strategies and sometimes they contradict or overlap each other. Decades of neglect and ignorance suffered by the small-scale fishing communities have put most of them at the bottom of the social and economic strata of their respective countries.

There is an increased interest on the part of the governments in improving the socio-economic conditions of low-income groups. Therefore, the governments in developing countries are considering various measures for upgrading small-scale fisheries. The most important among them were the Out Board Motors (OBM), beach landing crafts, and fishing nets made of sophisticated materials. These changes resulted in increased investment and higher recurring costs of fishing, not in proportion to the returns. At the same time, this strategy has led to marginalization of coastal fishing communities and reduced their autonomy for participation in the new structure of the fish economy. There is not only the problem of division of the national output between families and individuals, but also conversion of

commodities into capabilities which varies with a number of parameters like age, sex, health, social relations, class background, education, ideology , and a variety of other interrelated factors.

A package of socio-economic actions is to be initiated to bridge the gap between small scale fishing communities and the rest of the society. More specific and concrete socio-economic measures are required, which will enable them to earn more income, get cheaper credit arrangements, and sustainable livelihood security measures. They require easy access to improved education, housing, health facilities, with greater stress on population and family welfare issues. A developing state can conceive innovative welfare and development measures to address the issues of poverty alleviation and livelihood security. Kerala, an important maritime state of India having a fishery population of 6,02,234 is striving to achieve its planned objectives by providing welfare and livelihood security measures to the fishing community. With this end in view, the government of Kerala is implementing policies for the socio-economic development of the fisher folk.

Kerala has achieved tremendous progress in the fields of education, health and sanitation, but with an exception in the fisheries sector. Fisheries have an important share in the economic development of Kerala. Nevertheless, it does not stand on par with the progress

attained in other sectors; and stand isolated from the main streams in education, health, and economic prosperity. (Kerala calling-2000).

Because of the low earnings and the negative returns on their investments, they have to depend on credits from any other source available even for their livelihood. The welfare measures are envisaged to help the small-scale fishermen community, to keep a better standard of living and to a sustainable livelihood security. But there are fishermen families who do not have houses, or with houses of katcha nature. Scarcity of safe drinking water is yet another chronic problem in most of the costal villages. Even though the fishermen are eager to send their children to schools, the literacy level of fisherfolk is far below the general literacy rate of the state.

From the year 1964 onwards, the government of Kerala is providing various types of social security and welfare measures to the fishermen .These schemes envisage the improvement the living standards of the fisher folk. Remarkable changes have occurred in the mid eighties after the formation of Kerala Fishermen Welfare Fund Board (Matsyaboard) and Kerala State Co-operative Federation for Fisheries Development (Matsyafed). The officers of fisheries department, Fishermen Welfare Fund Board and Matsyafed are working under a single roof of 'Matsyabhavan' to coordinate the various projects and schemes of central and state governments, which covers their

requirements from, birth to death. It is significant to see the effectiveness of these measures to improve the conditions of the small-scale fishermen.

Matsyaboard, with its headquarters at Thrissur, implements various welfare schemes, which cover requirements from birth to death. The Matsyaboard is implementing 15 welfare schemes. Major welfare schemes currently implemented by the Matsyaboard are:

1. Old age pension for fisherfolk - Rs. 100/- per month
2. Group insurance against accident – Rs. 1,00,000/-
3. Financial assistance to fisher family by the death of fishermen while fishing - Rs. 20,000/-
4. Marriage grant for the daughters of fishermen - Rs. 1500/-
5. Financial assistance to fisher family for the death of fishermen due to natural causes - Rs. 5000/-

Matsyafed, the apex body of the fishermen cooperatives in the state has its headquarters at Thiruvananthapuram. A three-tier system of cooperatives with 852 primary cooperative societies is functioning in the state under Matsyafed

The objective of Matsyafed is to liberate the fishermen from the clutches of the middlemen, by extending cheaper credit and organizing

them by providing a platform for coming together and directly involving in the decision making process. The ultimate aim is to help the fishermen to assert their legitimate rights over their produce, and thereby enhancing their income, which would be a major step for the total development of the community. Matsyafed implements various schemes such as:

- Monitoring and marketing of fish landings through primary cooperatives.
- Supply of various fishing implements such as craft, gear, engine, etc. to active fishermen
- Housing schemes of fishermen
- Insurance schemes for fisherfolk

These welfare measures by Matsyafed are meant to help the small-scale fishermen community to keep a better standard of living and social security to ensure dignity of life. This study is restricted to see whether this sector has attained the socio-economic conditions envisaged by the authorities through various schemes of Department of Fisheries, Matsyaboard and Matsyafed. The study also aims at to see how far the fisher folk are aware of these schemes by the government, and whether they utilize the benefits envisaged by the government. It is significant to see the effectiveness of these measures to secure the welfare of the small-scale fisher folk in a sustainable manner. The study

pertains to see what the existing social, economic and infrastructural facilities in relation to resources - natural and acquired.

1.5. Research Objectives

The research envisages:

1. To study the socio economic conditions of those who are involved in the small scale fisheries sector in Kerala.
2. To assess the awareness of the small-scale fisher folk regarding various schemes by the government.
3. To study the implications of various government schemes on the socio-economic conditions and social security of small-scale fishermen.
4. To identify management and operational problems of implementation, and to suggest measures for improvement.

1.6. Scope of the Study

A socio-economic research is required as an attempt to address the socio-economic issues facing small-scale fisheries. A study of the socio economic conditions of small-scale fishermen is a prerequisite for good design and successful implementation of effective assistance Programmes. It will provide an overall picture of the structure, activities and standards of living of small-scale fisherfolk. The study is confined to the coastal districts of Ernakulam, Thrissur and Malappuram

districts. It also gives a picture of socio-economic conditions of the fisher folk in the study area. The variables that may depict the standard of living of the small-scale fisherfolk are occupational structure, family size, age structure, income, expenditure, education, housing and other social amenities. It attempts to see the asset creation of the fisherfolk with the help of government agencies, and the nature of savings and expenditure pattern of the fisherfolk. It also provides a picture of the indebtedness of the fisherfolk in the study area. The study analyses the schemes implemented by the government through its agencies, like Fisheries Department, Matsyaboard, and Matsyafed; and the awareness of fisherfolk regarding these schemes, their attitude and reactions, the extent of accessibility, and the viability of the schemes.

1.7. Limitations of the Study

The absence of any scientific research data on the subject have compelled the researcher to rely heavily on the survey data, the government reports and other publications. The fisherfolk was the subjected to various surveys by governmental agencies. Therefore, a lot of persuasion was required to convince them and to elicit the required information. Conclusions are based on the information provided by the respondents.

1.8. Organization of the Study

The study is organized under nine chapters. The first chapter introduces the topic of study. The second chapter reviews the literature on the subject and explains the methodology. The third chapter examines the socio-economic conditions of the fisheries sector in relation to infrastructure facilities. An analysis of the socio-economic conditions of the study area based on the primary data is the content of the fourth chapter. The fifth chapter analyses the asset creation of the fishers along with their savings, expenditure and indebtedness. The sixth chapter explains the various welfare measures anchored by the government through various agencies. The seventh chapter discusses the awareness of the fisher folk regarding the welfare measures implemented by the government, and the impact of these schemes on the fisher folk. The eighth chapter gives an account of the management and operational problems regarding the schemes. The last chapter presents the findings of the study and the suggestions for improvement of the socio- economic conditions of the fisherfolk.

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Chapter 2

Review Of Literature And Research Methodology

CHAPTER -2
REVIEW OF LITERATURE AND RESEARCH
METHODOLOGY

2.1. Review of Literature

All over the world fishermen generally belong to the lower strata of the society. In many cases they are victims of economic oppression and social prejudice. Their social status is comparatively very low in almost all the countries. It is not an exception even in a developed country like Japan.

The socioeconomic issues of fisherfolk, the problems of mechanization, marine species, ecological studies, the resources potential, marketing, welfare issues etc., are some of the important areas of study conducted, both at the micro and macro levels. A brief review of some of the major studies in the international, national and state level is attempted at in this chapter.

From the time immemorial fishing is the object of attention of economists all over the world. Both classical and neo classical economists seriously considered fishery as a major area of their study. They made observations relating to problems of fishing industry in their own way. Adam Smith (1979), The Father of Economics, had shown

great interest in the problems of fishing industry. His studies were related to the conditions of fishermen, their earnings, productivity, the uncertain nature of fish production, impact of technological changes etc. His learned observations are even now relevant in this modern era of fisheries development.

Fishing industry was a major concern for Alfred Marshall³. His Law of Diminishing Returns is used by fishing industry to explain the expected additional returns while applying additional capital and labour. Optimal use of labour, capital and fishing effort were the major concern of the economists of the 20th century. Christy (1982) had explored the possibilities of resources exploitation by institutional arrangements.

There is a large body of literature by Food and Agricultural Organization (FAO) of the United Nations pertaining to fishing industry both in the developed and developing countries. These studies give an insight into the problems of present day fishery situations of the countries in different parts of the world. The FAO studies reiterate the following as the socio-economic problems of small-scale fishermen:

- (a) The realization that small-scale fisheries are not a transitory feature of fisheries development;

- (b) Increased interest in improving the socio-economic conditions of low-income groups in general; and
- (c) The new opportunities for local fisheries made available by the declaration of extended fisheries jurisdictions.

The marine fisheries worldwide are characterized by the existence of small-scale or artisanal fisheries side-by-side with large-scale or industrial fisheries. Artisanal fisheries are largely owner-operated and labour-intensive which uses only little capital.

The FAO's report published in 1958 on the Technical Meeting on Cost and Earnings of Fishing Enterprises had outlined the concepts, definitions and conventions existing in different countries. It also had presented the purpose of cost and earnings in fisheries from the point of view of industry, government and other public authorities. The impacts of different types of fisheries regulation existing in its member countries were illustrated in the reports on the Economic Effects of Fishery Regulation.

The FAO made great interest in disseminating the technological developments in the field of boat building throughout its member countries all over the world. In a FAO document, Caddy and Bazigos (1985), briefly discussed fisheries administration for stock assessment,

resource management, investment planning and economic analysis, and for social and nutritional studies.

In 1994, FAO published a Report on Regional Workshop on Fisheries Development Policies (planning, marketing and credit) held at Cairo. The objectives of the workshop were to promote expertise in planning, marketing and credit, with a view to improve fisheries development in the participating countries.

In addition to this, a number of studies were conducted by individuals and institutions belonging to different countries about different aspects of the fishing industry.

The earlier studies on fisheries, the FAO mainly focused on the problems of developed countries. Only during the 1970s, it had diverted its attention to the developing countries. In the 1970s, the FAO made a study of the problems in the countries bordering Indian Ocean region under the FAO/UNDP Indian Ocean Programmes. BOBP of FAO is intended to exhibit and manifest technologies to better the plight of small-scale fishermen by creating co-operation between two or more developing countries. Panayatou et. al., (1982) had analysed the socio economic factors of the small-scale fisheries in Asian countries. In 1970's, it also had focused its attention on Indian ocean region under

the Bay of Bengal Programme (BOBP). The BOBP working paper No. 25 had given an evaluation of the Artisanal fishing crafts in Kerala.

Fishing was identified as an occupation in the Sangham period (first five centuries) in Kerala. Sreedhara Menon (1967) in his book "A Survey of Kerala History" points out that the Kulasekhara epoch (930-1200) was a period of high degree of prosperity, but in fishing there was no room for generation of economic surplus and accumulation.

Many studies were concentrated on the impact of the implementation of the Indo-Norwegian Project and the technological advancement made after its implementation. Mechanized fishing was introduced in 1954 at Neendakara, in Kollam district, under the initiative of the Indo-Norwegian project (INP), and then extended to Cochin and Kannur subsequently. The initial attempt at mechanization was to motorise indigenous crafts. However, it was given up, as indigenous crafts are not suitable for mechanization, and straightaway went in for building of mechanized boats with imported Norwegian technology (Thankkappan Achari, 1969).

While exploring deep into the historical events of Kerala, P.K. Gopalakrishnan (1974) had identified the emergence of the fiduciary chiefs as exploiters of the products of labour in the fisheries sector in the coastal area in the 11th century itself.

Even though there was an increase in volume and price of the catch, a number of factors lead to the pathetic economic condition of the traditional fishermen. Smith (1979), in his article "A Research framework for traditional fisheries" had observed that in many developing countries, small-scale fishermen live close to or below the subsistence level, or, at any rate, they are among the lowest socio-economic groups in the country. Thus, the fundamental problem of small-scale fisher folk around the developing world is their persisting absolute or relative poverty, despite decades of remarkable overall fisheries development and national economic growth. They have neither adopted the advanced fishing technology nor did they find employment in the large-scale fishery or elsewhere, as it was presumed, for reasons ranging from capital market distortions and the (consequent) capital intensity of the large-scale fishery to the limited mobility of the small-scale fishermen or the lack of alternative employment. Thus, there is a need to put small-scale fisheries in the right perspective and examine the available policy options for improving their socio-economic conditions, and maximizing their overall contribution to national economic and social development. D. Thomson, (1980) had found that all over the world, even after more than three decades of fisheries development, the small-scale fishery uses one-fifth as much capital, one-fourth to one-fifth as much fuel per tonnes of fish landed and creates a hundred times more jobs per dollar invested than the large-scale fishery. There are about 10 million small-scale fisher folk landings

and around 20 million tonnes of fish annually, which accounts for almost half the world marine catch used for direct human consumption.

G. Hardin (1968), in his Classic article “Tragedy of the Commons” narrated how the natural resources, including marine resources, are destined to an inevitable ruin, if it is not in the strict domain of private or state property.

Organization of the poor is created through the endeavours of organizations and individuals to support and enable the poor. While this has existed throughout history, the 1940's shift in colonial policies from improving the welfare of destitute groups to community development approaches as the predominant strategy to deal with the poor and the subsequent mainstreaming of participatory approaches in development practice in the 1980s. Cernea, 1991; Chambers, 1997; Grillo 1997; McGee, 2002; Watt *et al*, 2000; Woost, 1997 were the chief economists who stood for community development approaches. Over the period, governments and development agencies increasingly created and reinforced organizations of the poor as a primary method to reduce poverty, empower the poor through participation in their own organizations, and improve the sustainability and effectiveness of development.

Governments in developing countries are considering development assistance measures for upgrading small-scale fisheries. However, such efforts may be frustrating without a thorough understanding of the factors responsible for their currently depressed situation and the existing potential for further development. Moreover, improving the standard of living of small-scale fisher folk is but one of the objectives in a fisheries policy.

In his paper presented at the ICALARAM workshop "On Economics of Aquaculture Research", Panayatou, (1981) had explained the dichotomy that exists between conditions of entry to and exit from a fishery. The potential entrant to a fishery may be guided, in part, by the opportunity cost concept, but the individual already engaged in fishing may find it difficult to shift his assets (craft and gear) out of the fishery. Capital is likely to be more immobile than labor under such circumstances. The no-owner has somewhat more flexibility than owners whose crafts and gears, as long as their variable costs are met. This explains why existing owners continue to fish even when the profits earned are insufficient to attract additional entrants.

Angle, P.S. (1983) had observed that there is a declining trend in the role of women in economic development of fishery in the south west coast of India; due to deepening regional dependence on external

capital, growing economic impoverishment, pollution of coastal waters, and marine resource depletion related to the nature of fishing.

Abdullah, et.al. (1997) had narrated how far co-management, as an institutional arrangement for managing fisheries resources, will effectively address some of the problems of fisheries overexploitation, dissipation and redistribution of resources rents, and conflicts among the different group of resource users.

Jayaraman, et. al., had gives some insight into the causes of the non-optimal utilization of fishery resources of India. They had pointed out that it is caused due to lack of appropriate conservation/management practices (1988) Chua,(1989), in his study made recommendations for coastal area management in the ASEAN region, based on discussions held at the Workshop which reviewed the current exploitation of coastal resources, and examined the severity of degradation of the coastal environment in the region. The most serious management issues were: fishery resource overexploitation; degradation of coastal and marine ecosystems and habitats; declining water quality and pollution; endangered marine species and coastal wildlife; and the low level of institutional capability for integrated coastal area management. Proposed guidelines are included for industrial development and environmental quality; mangrove conversion; shrimp farming and other coastal aquaculture; exploitation of fisheries

resources; coral reef protection; reversing the decline of water quality; preventing coastal erosion and sedimentation; tourism development; improving institutional arrangements and capabilities; public awareness; and upgrading legislation."

The freedom of fisherfolk from market domination directly depends on in which fishery they are in. Ostrom (1990) and Panayotou (1982: 46) observe that population pressures, and uneven accumulation of capital within the community can lead to instability and conflict.

Ostrom (1990), Bromley et.al. (1992) and Panayotou (1982) had observed that if allocation of resources are vested with the community, an open access resource with community based management is more favourable for the sustenance of the fisherfolk. Ruangrai et.al. (1992) had expressed the opinion that the community should be capable of managing its own resources.

While analyzing people's participation in fisheries, Kurien (1992) had stated that development of fishery by community management is hindered by modern technological development, due to ecosystem changes and resource depletion and ruined the commons and the commoners. Hence, a new strategy is needed to integrate ecosystem management for environmentally sustainable development. According to Christie (1993), it is possible only by involving multi sector,

independent public participation that is free from conventional government infrastructures. However, there are no effective rules governing the ways in which individuals, households and firms use resources in coastal areas. The observations made by Boolnert (1994) were that coastal laws regulating gear type, fish size, geographical and seasonal closures are widely flaunted. Anthony (1994), had reviewed the evolution of sustainability concepts and management paradigms in the fishery. He had also drawn on the experience to develop an integrated “sustainability assessment” framework, and analyses potential policy directions for sustainable development. These management functions had given major opportunities to fishing communities to influence their own development, and to prevent the destruction of the resource base which can allow community based development.

Holden, (1994) the Director of Fisheries Research in England and Wales (1981-1994), while evaluating the policies of Great Britain, points out that to achieve the objective of maximizing the economic benefits from the fisheries, requires to limit the fishing capacity of the community fleets. He further observes that a system of licensing offers the most effective means by which to achieve this objective. And he warns that the individual boat owners are sometimes discriminated against the large vessel owners while such a licensing system is introduced.

Vijayan and Kurian (1994) identified the problems of over fishing which is threatening the existence of the age-old management system in the coastal fishery. They perceived that the negative economic, social and ecological consequences of over fishing are very many and it becomes a burden for the society as a whole. In addition to profit and accumulation; ownership patterns, division of labour and sharing systems assure distributive justice in income and equal access to the fish resource. Social values are linked with and strengthened by traditions, customs, and are providing a good basis for effective fisheries management. Kurian et.al, (1994) had explained how traditional fishermen find their ways to cope with the changing situations. They find that the declining catches with increased fishing effort and unequal distribution of the value of output forced the traditional fishermen to adopt for a variety of more active fishing gear to compete with the trawlers and purse-seiners. Moreover, motorization compelled the fishermen to borrow heavily to remain in fishing, resulting in a high level of indebtedness with middlemen and merchants, and this has resulted in the loss of effective control over the sale of their fish by the fishermen. Moreover, the stakeholders in the management of the resource with the creative partnership in which rights, aspirations, knowledge, resources and responsibilities can be fully respected and enhanced.

Amarthya Kumar Sen (1989) emphatically states that the basic thrust of the ingredients for a secure future for small scale fishing communities is to create the foundation for an economy in which they can attain their set of endowments, entitlements and capabilities. Thus, the basis of such a development process should be such that which generates growth, regenerates environment, and empowers people that foster interrelationships which create self-reliance.

Social justice is the principle of rational prudence applied to an aggregate conception of the welfare of the group. The principle for the individual is to advance as far as possible his own welfare, his own system of desires; and the principle for society is to advance as far as possible the welfare of the group. The Neoclassical welfare theory states that the performance of economic goods in quantities that accord with people's relative desires for those institutions can and should be judged according to whether they provide economic goods.

Development is not a matter ultimately expanding supplies of commodities, but of enhancing the capabilities of people. Amarthya Sen, 1984 has stated that the process of development is not primarily one of expanding the supply of goods and services, but of enhancing the capabilities of people focusing on capabilities forces us to see the theoretical questions and policy issues in a particular light. There is a

need to pay specific attention to the generation and security of entitlements and their conversion into capabilities.

National workshop (1997) had gone deep into the need of government intervention and cooperation with the community for the successful formulation and implementation of fisheries policies. They further observed that responsibility for management of natural resources is to be shared between government authorities and communities or other resource users. These co-management projects improve access to resources by marginalized people, and act as a vital tool for sustainable development.

Craig (1998) had argued that by granting and recognizing an individual's right to use and exploit a resource, the individual has a command over the resource, but this command depends on the state.

A desk study carried out by Groenewld et.al, (2000) had concluded that artisanal marine fisheries had characterized by low and irregular incomes; special arrangements for compensation of labour and capital inputs, with a prevalence of sharing systems rather than fixed wages; labour-intensive rather than capital intensive methods of production; exploitation of open-access resources, in competition with industrial fisheries. Moreover, fishing communities tend to have low standards of living in terms of access to safe drinking water, housing

conditions and health and family planning services. They often lack adequate infrastructure and community services such as all-weather roads and public transport, as well as access to credit and other support services, including storage/preservation, processing and marketing facilities.

Buckworth, (2001) had explained how many fisheries are depleted or have collapsed, owing to a mixture of relentless economic pressure and our inability to manage complex, uncertain systems. He had pointed out two main components to the problem. The world catch is near the limit imposed by oceanic and fresh water productivity. Many stocks are over fished, ultimately calling into question our ability to manage fisheries sustainably.

According to Hanneson (2001) the role of economic tools had to be 'maximizing the net present value of the fish catch over an indefinite time horizon, based on an incentive mechanism.

Boyce, (2001), had opined that coastal natural resources should be converted into coastal natural asset building by investment to increase the total stock of natural assets; internalization to increase the ability of the poor to capture benefits generated by their stewardship of natural assets, redistribution to transfer natural assets form others,

and appropriation to establish community rights for the poor to erstwhile open access resources.

Appollonio, Spencer (2002) had explored in detail the idea of natural constraints inherent in hierarchical ecosystems and the impact upon such systems when constraints are reduced or removed. He presents a compelling case for a new approach that holds the promise of resource sustainability in the face of enormously complicated natural and cultural forces.

Rajan, (2002), had stated that the traditional fisher folk were undertaking fishing primarily for subsistence with a sense of camaraderie and community participation. Through continuous interaction with the ocean and fish, the artisanal fisherfolk had accumulated trans-generationally a treasure of scientific knowledge on diverse marine eco-systems and fish behaviour. The new modes of fish production and distribution had resulted in loss of traditional skills and knowledge systems, and had converted into passive-gear to an active-gear technology; from a low cost to a high-cost technology; and from an eco-friendly to an eco-destructive technology.

Kurian, (2002) had opined that a blend of the indigenous technology and the positive elements of modern technology will provide artifacts and processes that can be both energy efficient as well as

economically and ecologically sustainable. He again in 2003 had observed that a healthy fishery management system and participation of the fishing community with their traditional skill and knowledge, along with new management technique is the need of the time to preserve resources and to exploit them sustainably, and to maintain the health of the ecosystem.

The study of Antonyto Paul (2003) had advocated co-management system as a healthy option for coastal fishery wherein the actual fishermen own the fishing rights, and they together with local governments manage the fishing activities in a sustainable manner.

Schrank, (2003), had discussed the concept of fishery subsidies and its application in fisheries worldwide. He also discusses the connection between fishery subsidies and their effects on sustainability and trade.

According to Titto D'Cruz.S (2004) the diversification of exploitation to new resources had an inevitable consequence of rising fishing pressure which is steadily on the rise, primarily due to the increase in fishing capacity of units in general and on artisanal ring seine units in particular.

For development agencies of trying to identify existing multiple, heterogeneous, and scattered small-scale organizations¹, to minimize the pressures of accumulated vested interests in established groups, to develop targeted training that incrementally improves on existing capacities as a function of actual group needs, and to monitor and report on small, diverse, and dispersed institutional strengthening activities. It is far easier to assume a *tabula rasa*, and presume success in poverty reduction and community development by increasing the number of new organizations that are formed and the number of group training courses and other support given.¹Some tools exist to facilitate this task. (See for example Messer and Townsley, 2003).Beyond capacity building, a common focus of the support that development agencies give to the organizations of the poor is seed money, micro-credit and small grants to form revolving funds (IFAD, 2004e).

Outside organizations are inherently biased toward the poor (and non-poor), rather than the poorest members of rural communities, unless specific mechanisms are adopted to mitigate this bias. (IFAD, 2004b, 2004d). The incentive can be so great that individuals who are not really poor disguise their true economic status and enjoy the benefits.

A final weakness is that a policy of external support to the creation of organizations of the poor may actually affect the broader

¹ Some tools exist to facilitate this task. (See for example Messer and Townsley, 2003.)

environment and diminish the local dynamism of the poor to organize themselves. (Douglas and Kato, 2004:55).

Bailey M. A. and M.C. Rom (2004) in their article 'a wider race? Interstate competition across health and welfare programs', viewed welfare as the income program of last resort for people with little or no other income. They observe that In Canada welfare is mainly under provincial/territorial control, so there are 12 welfare systems. In European literature welfare may be referred to as minimum income schemes. In American literature welfare may be referred to as public assistance.

Holsch K and M. Kraus,(2004) while examining the relationship between the degree of centralization in European welfare schemes and their success in reducing poverty observed that centralized system were more effective in combating poverty than much decentralized schemes although centralized schemes were not proven to run more efficiently. However, a medium degree of centralization was shown to be the most successful in reducing poverty.

Salter F. K. (2004), in his book 'welfare, ethnicity and altruism: new findings and evolutionary theory', considers policy implications for a generous and inclusive welfare measures at a time of economic globalisation and mass migration. Solutions and alternatives are

discussed including multiculturalism at state and international levels; assimilation; secession; ethnic federalism; the Swiss model; the European model; affirmative action (group rights); and strict individualist welfare.

2.2. Methodology

A comprehensive survey of the studies on fishing industry is given in the above paragraphs. Now the discussion is devoted to the methodology adopted for the study.

According to Marine fisheries census conducted by CMFRI, on behalf of Government of India, there are 3,202 marine fishing villages with a total population of 3.52 million living in 7,56,212 households. The average number of households per village on all India basis is 236, with a maximum of 543 in Kerala. The fishery population per village on an all India basis is 1099; and it is 2713 in Kerala fishery villages on an average basis. In the case of number of households and density of population per village, Kerala stands the highest in all fishery villages in India. The details are given in Table 2.1 and chart 2.1.

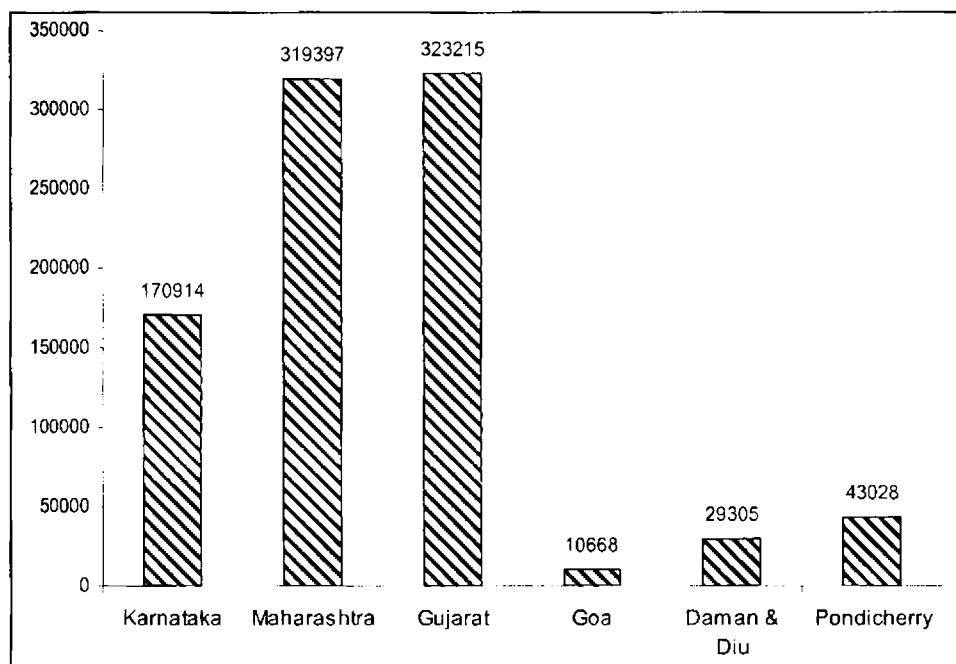
Table 2.1.

India Profile

State & Union Territory	No of fishing Villages	No. of fishermen Families	Fishermen population	Percentage of population
West Bengal	346	53816	269565	08.66
Orissa	641	86352	450391	12.80
Andhra Pradesh	498	129246	509991	14.49
Tamilnadu	581	192152	790408	22.46
Kerala	222	1,20,486	602,234	17.11
Karnataka	156	30176	170914	04.86
Maharashtra	406	65313	319397	09.08
Gujarat	263	59889	323215	09.19
Goa	39	1963	10668	00.03
Daman & Diu	22	5278	29305	00.83
Pondicherry	28	11541	43028	01.22
Total	3202	756212	3519116	

Source: Marine Fisheries Census -2005

Chart 2.1. India Profile



As per table 2.2 and chart 2.2, there are 6, 02,234 fishermen living in 222 fishing villages in nine coastal districts in Kerala. They are reluctant to live away from the coast because of the nature of their fishing activities and centuries old way of life. Kerala is the second highest state in India having 17.11 percent of the total fisheries population.

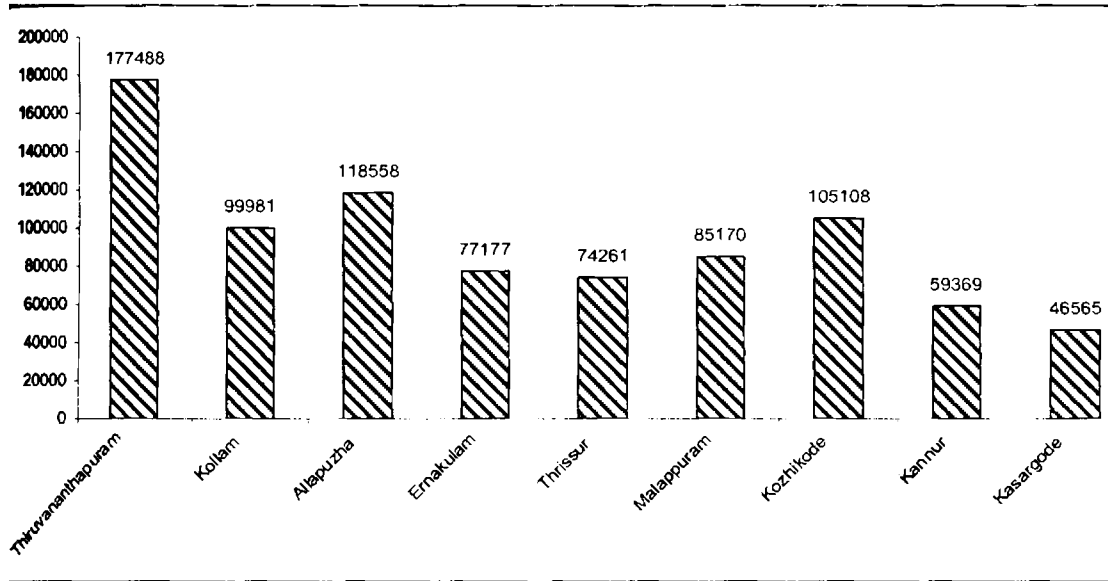
The density of population is high in the fisheries village as compared to other parts of the state, though there may be some variations according to local peculiarities. The density of population in the district of Kasargode is 1181, and in the district of Thiruvananthapuram, it is 3342. According to state planning board the average density of population in the fisheries villages is 2162, while the state average is only 729/square kilometer. The high density of population and the limited facilities of life make their living miserable. (People's planning 1998).

Table. 2.2.**State Profile**

Districts	No of fishing Villages	No. of fishermen Families*	Fishermen Population	Percentage of population
Thiruvananthapuram	42	22070	177488	21.04
Kollam	27	10922	99981	11.85
Allapuzha	30	14695	118558	14.05
Ernakulam	21	10032	77177	09.15
Thrissur	18	7307	74261	08.80
Malappuram	23	8890	85170	10.10
Kozhikode	34	11244	105108	12.46
Kannur	11	7186	59369	07.04
Kasargode	16	5832	46565	05.52
Total	222	98178*	8,43,587	

Source: Economic Review-2004.* It is 120486 families as per Marine fisheries Census of Government of India 2005. Government of Kerala (1990b) Techno Economic Survey of fisherfolk in Kerala, Department of Fisheries, Thiruvananthapuram

Chart 2.2 State Profile



According to Table 2.2 and chart 2.2, there are 9 coastal districts in Kerala with a total fishermen population of 8, 43,587. These fisheries districts are divided into three zones, namely,

- Zone I- Thiruvananthapuram, Kollam and Alappuzha
- Zone II- Ernakulam Thrissur and Malappuram
- Zone III- Kozhikode, Kannur and Kasargode.

For this particular study, the central zone, consisting of three coastal districts, i.e., Ernakulam, Thrissur and Malappuram are considered. This zone has 28 percent of the total fishery population and 28 percent of the fishery villages of the state. In Ernakulam district, there are 21 marine fishing villages; it is 18 in Thrissur and 23 in Malappuram districts. In Ernakulam, the fishermen population

accounts 77,177; it is 74,261 in Thrissur and 85,170 in Malappuram. Fishermen households in these districts are 10032, 7307 and 8890 respectively.

Fishery villages in Ernakulam, Thrissur and Malappuram Districts are 21, 18 and 23 respectively. These fishery villages are under four fishery officers in each district. For this particular study, one cluster of fishery villages under a fishery officer was selected by random method, Cherai from Ernakulam, Nattika from Thrissur and Ponnani from Malappuram. Out of 6 villages of Cherai cluster, five villages were selected by random method, namely Munambam, Pallipuram, Cherai, Ayyampilly and Kuzhupully. Under Nattika cluster, there are five villages including a part of Valppad. By random method four villages selected are Valappad, Nattika, Thalikulam and Vatanappilly. In Ponnani cluster, there are seven villages. Five villages vis-à-vis Meentheruvu, Marakadavu, Mukkadi, Thekkekadavu and Puduponnani were selected by random method for the study.

Number of fishermen in Valappad (Chappallykadappuram) are 801, Nattika, 714, Thalikulam, 392, and Vatanappilly 258. In Puduponnani, there are 1270 fishermen, Thekkekadavu 750, Mukkadi 905, Marakkadavu, 795, and Meentheruvu, 1225. In Munambam, the numbers of fishermen are 1022, in Pallipuram, 763, Cherai, 584, Kuzhupully, 288, and Ayyampilly, 188.

Primary data required for this study were collected from the fishermen households using lottery method of simple random sample. 407 samples were collected and out of these, 107 have been weeded out, and 300 samples were selected with 100 samples from each district.

Table 2.3 provides information regarding the ownership pattern of fisherfolk in Kerala. 69 percent of families have no crafts another 69 percent have no gears. There are 66 percent of percent of families having no craft or gear. Only five percentage families have a share in crafts, and another two percent have a share in gears. Hence while selecting the respondents with different category of fishers, such as group owners of large boats, owners of small groups i.e., a membership with less than 10 members, individual owners and fish workers who have no ownership in craft or gear are considered.

Table 2.3.

Ownership Pattern

Nature of ownership	Kerala	Percentage of Kerala
No craft	82772	69
No gear	82554	69
No craft or gear	79438	66
Having share in crafts	5957	05
Having share in gear	2397	02
Total no. of Families	120486	--

Source: Consolidated from Marine fisheries Census-2005, Government of India.

The period of the survey extended from the month of January to May 2005 and from the month of November to December 2005.

It was very difficult to extract details regarding savings, expenditure pattern, catch and the earnings of respondents. Therefore, a resurvey was conducted in the sample villages to get adequate data in detail. Participatory observation was also adopted in some cases.

Table 2.4 and chart 2.3 give a picture of religion-wise distribution of fishermen households in Kerala. Fishermen from Hindu, Christian and Muslim religion are engaged in fishing. But their clustering in fisheries villages is differing from district to district. Fishermen from Hindu and Christian religion are more or less equal in Ernakulam district. There are only a limited number of Muslim fishermen in this district. In Thrissur district, there are more Hindu fishermen than Muslims and the fishermen from Christian religion are negligible. In Malappuram district, Muslim fishermen are dominating. The number of fishermen from Hindu religious belief is less and Christians are very negligible.

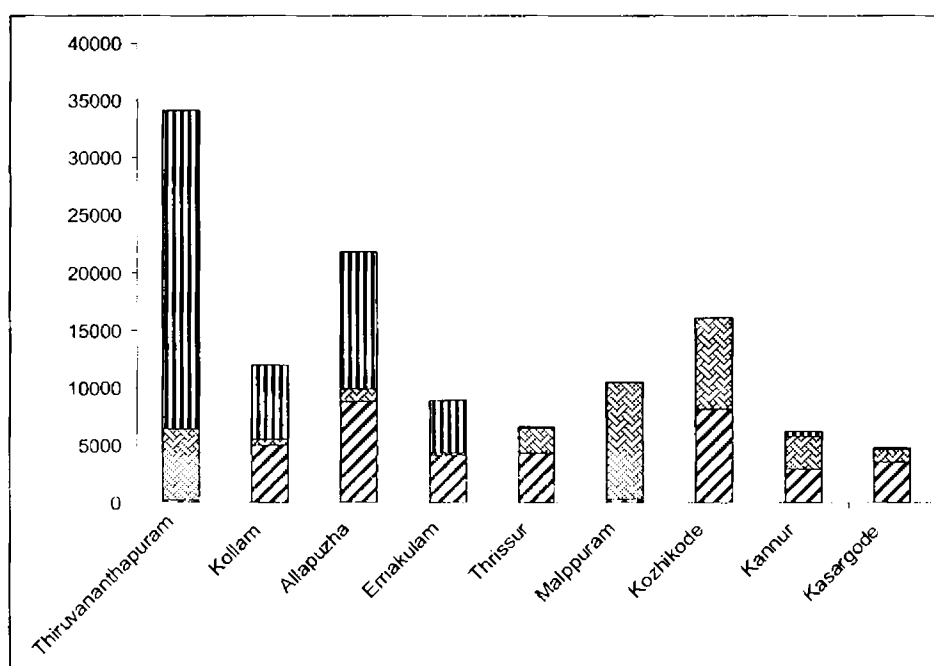
Table 2.4.

Religion -wise Distribution

List.	Hindu	Muslim	Christian	Total
Thiruvananthapuram	254	6193	27681	34128
Kollam	4936	645	6318	11899
Allapuzha	8766	1082	11911	21759
Ernakulam	4084	271	4521	8876
Thrissur	4287	2262	49	6598
Malppuram	294	10166	2	10462
Kozhikode	8176	7847	35	16058
Kannur	2903	2848	478	5929
Kasargode	3622	1086	69	4777
Total	37022	32400	51064	120486

Source: Consolidated from Fisheries Census 2005, Ministry of Agriculture, New Delhi.

Chart 2.3. Religion -wise Distribution



From the field survey, the relevant information was collected through the interview method. Interview schedule was prepared after discussions with experts in the field, and after making a review of literature in that area. The schedule was prepared in such a way as to obtain information regarding the socio-economic conditions of the fishery villages; significance of the welfare and livelihood security measures implemented by the government through Fisheries Department, Kerala State fishermen welfare fund Board (KSFWFB) and Matsyafed (Kerala State Co-operative Federation for Fisheries Development); rules and regulations of the government in safeguarding the fishery practices and other general information. The study on socio-economic conditions was based on the questionnaire prepared by Yamamoto for similar studies in Asean countries, and necessary changes were made to cope with the conditions in the study area. Appropriate statistical tools were used for the analysis and interpretation of the data.

A number of agencies work under the department to fulfill the mission envisaged by the government. They include Matsyafed, Matsyaboard (Kerala State Fishermen Welfare Fund Board), Agency for Development of Aquaculture, Fish Farmer's Development Agency (FFDA), Brackish Water Fish Farmer's Development Agency (BFFDA) etc., for implementing various projects and schemes for the expansion of fisheries in Kerala as well as for the welfare of the fisher folk.

In Kerala, there are Fisheries Department, Fishermen Welfare Fund Board and Matsyafed functioning with the objective of improving the life of the fishermen community by giving assistance in the form of cash and kind, other and welfare schemes. The government is spending crores of rupees under various policies and schemes, but whether they are properly streamlined to help the artisanal sector is something to be looked into.

For the study, schemes of the Fisheries Department, Kerala State Fishermen Welfare Fund Board and Matsyafed which have some direct link to the marine small-scale fishermen in the state of Kerala are considered. The Schemes selected for the study implemented by different agencies are given below:

2.3. Schemes of Fisheries Department:

- Saving-Cum-Relief Scheme
- Housing Scheme
- Electrification (Theerajyothi)
- Sanitation

2.4 Schemes of Matsyaboard

- Group insurance scheme for all active fishermen
- Cash awards and scholarships for SSLC and higher education for the children of fishermen.

- Financial assistance to the dependents of fishermen in case of accidental death while fishing
- Financial assistance for the death of the dependent
- Old age pension and widow pension to registered fishermen
- Financial assistance to the dependent for the death of fishermen for meeting the funeral expenses
- Financial assistance for treatment of handicapped and mentally retarded children of fishermen
- Financial assistance to registered fishermen for treatment of fatal diseases
- Financial assistance for temporary disability due to accident
- Financial assistance to wife of fishermen for maternity care.

2.5 Schemes of Matsyafed

- Subsidized Housing Scheme
- Sanitation and Health
- Life Insurance

Chapter 3

Fisheries Sector- An Overview

CHAPTER -3

FISHERIES SECTOR – AN OVERVIEW

An account of review of literature and the methodology followed is discussed in the second chapter. This chapter provides a view of Kerala fisheries in relation to fisheries sector in India. Besides food and nutritional security, fishery provides sustenance through livelihood and employment to millions in the coastal belt. But decades of ignorance and neglect placed the small-scale fishing communities at the bottom of the social and economic strata. To uplift them in the socio-economic ladder, many programmes are implemented by various agencies both governmental and non governmental.

Though Kerala has achieved tremendous progress in the field of education, health and sanitation, the condition of the fishermen continue to be extremely deplorable. Concrete socioeconomic measures are required for achieving this. The measures should include flexible and cheaper credit, sustainable livelihood security measures, easy access to improved education, housing, health facilities, and family welfare programmes.

3.1. Marine potential

Kerala has all the requisite natural endowments for building a strong and vibrant fishery economy. They include a long stretch of coastal belt extending over 590 kilometers and a resource potential of 7.5 lakh metric tonnes. With respect to India's total fisheries potential, Kerala holds an important place with 28.84 percent share. Again, below 50-metre depth, the share of Kerala accounts for 22.10 percent. As in the case of demersal resources, pelagic resources are also concentrated in the 50 metre depth. Thus, Kerala's fishery potential is mainly clustered around the coastline below 50 metre depth, but fishing is largely concentrated in the inshore areas without any serious effort for tapping the potential available in the off shore and deep sea areas.

Even when things stand as stated above, there is an over exploitation of fishery resources, and that leads to resource crunch, and in turn, threatens the livelihood security of fisher folk, particularly the small-scale, as their only sustenance is the catch from the sea. But there is a silver line as there is scope for increased fish production by extending fishing activities beyond the present zone of fishing, and by harvesting the resources from deep sea and oceanic sectors within 200 nautical miles which forms the EEZ (Exclusive Economic Zone). But this requires technology up gradation.

The Indian Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries, recognize that the exploitation of living resources within 50 meter depth zone is showing symptoms of depletion and in certain belts in the inshore waters it tends to cross optimum sustainable levels.

Marine waters on the east coast of India, for example, suffer from a destruction of marine habitat, which also affects the future of Indian fisheries. In the words of Sampath (2003) the delicate balance between marine life and such coastal habitats as lagoons, estuaries, mangroves, and coastal wetlands is disturbed almost everywhere.

The Fishery Survey of India, (Economic Review,2003), identifies the causes as growing coastal populations coupled with a rising (global) demand for fish products, the introduction of new technologies into fisheries, damaging fisheries techniques (e.g. blast fishing), and rising pollution put pressure on the marine environment and the resources. The increased pressure results in diminishing fish stocks and declining catches, causing loss of food security and an increase of poverty, especially for local fishers.

Table 3.1 and chart 3.1 provides information with respect to marine fishery resource potential of India and Kerala.

Table 3.1.

Marine Fishery Resource Potential of India and Kerala

(In lakhs Metric Tonnes)

Sl.No.	Area	Demersal Resources		Pelagic Resources		Total
		0-50m Depth	Beyond 50m Depth	0-50m Depth	Beyond 50m Depth	
1	India	10.36	6.49	11.74	7.42	26.01
2	South West Coast of India	3.60	1.12	5.89	2.49	13.20
3	Kerala	2.29	0.56	3.42	1.24	7.50
4	Percentage	22.10	08.63	29.13	16.71	28.84

Source: Fisheries Survey of India, Economic review 2003

Chart. 3.1. Marine Fishery Resource Potential of India and Kerala

(In lakhs Metric Tonnes)

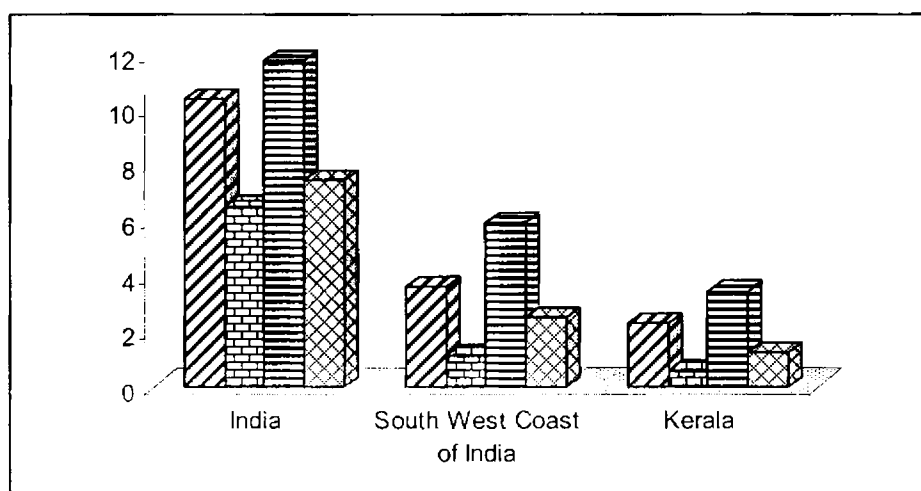


Table 3.1 and chart 3.1 give an account of the fishery potential of Kerala as compared to India. It is 26.01 lakhs metric tonnes percent in all India basis and share of Kerala is 7.50 lakhs metric tonnes. Out of this 7.50 lakhs metric tonnes, 2.29 lakhs metric tonnes of demersal and 3.42 metric tonnes of pelagic resources are found in a depth of below 50metres

3.2. Coastal length and landing centers

Table 3.2 and chart 3.2 give information regarding coastal length and landing centres in India as well as in Kerala.

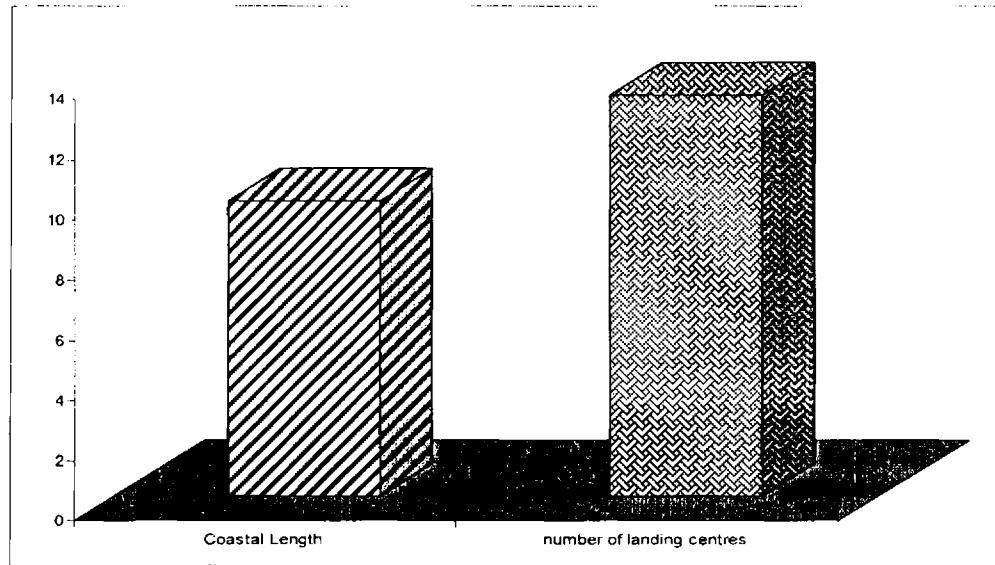
Table 3. 2.

Coastal Length and Landing Centers-India and Kerala

	Kerala	India	Percentage
Coastal Length	590	6002	9.83
Number of landing centres	178	1332	13.36
Kilometer/landing centre	3.31	4.51	

Source: Central Marine Fisheries Census -2005

Chart 3. 2. Coastal Length and Landing Centers- India and Kerala



Kerala is the most productive part of the Arabian Sea. It has a great role to play in the economy of the state. Fisheries contribute about 3 per cent to the State Domestic Product, which shows its immense potential and resourcefulness. Kerala has a coastal length of 590 kilometers, which accounts 9.83 per cent of the total coastline of India, (6002 kilometers). It has 178 landing centers, which is 13.36 per cent of the total landing centers in India. On an average, there is one landing centre for every 3.31 kilometers of coast. However, the national average is 4.51 kilometers. This indicates that Kerala fishery is providing more landing facility to the fisher folk as compared to all India standards.

Information regarding number of fishing villages and landing centres in the districts of Kerala are provided in Table 3.3 and chart 3.3.

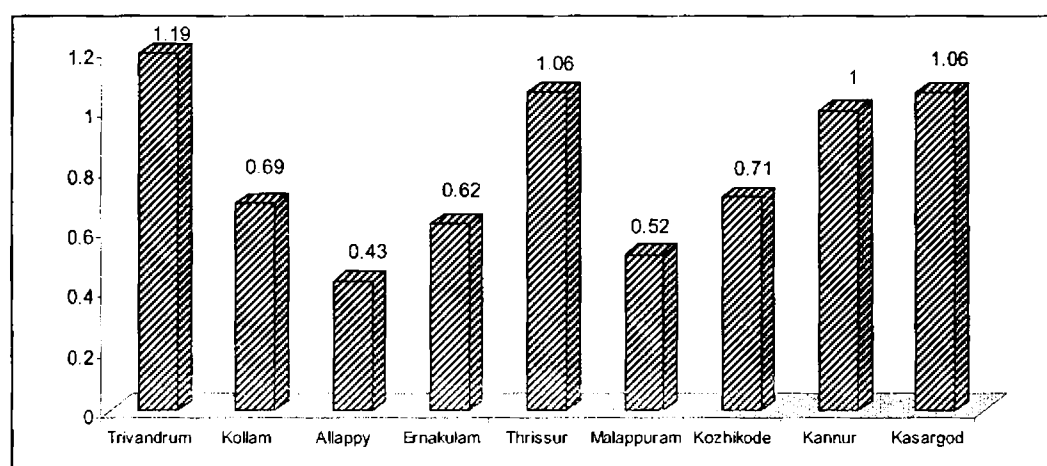
Table. 3.3.

Fishing Villages and Landing Centers

District	No of villages	No. of landing centers	Number of Landing centres / village
Trivandrum	42 (18.92%)	50 (28.09%)	1.19
Kollam	26 (11.71%)	18 (10.11%)	0.69
Allappay	30 (13.51%)	13 (07.30%)	0.43
Ernakulam	21(9.46%)	13 (07.30%)	0.62
Thrissur	18 (08.11%)	19 (10.67%)	1.06
Malappuram	23 (10.36%)	12 (06.74%)	0.52
Kozhikode	35 (15.77%)	25 (14.04%)	0.71
Kannur	11(04.95%)	11 (06.18%)	1.00
Kasargod	16 (07.21%)	17(09.55%)	1.06
Total	222 (100%)	178 (100%)	0.80S

Source: Central Marine Fisheries Census -2005

Chart. 3.3. Fishing Villages and Landing Centers



The number of fish landing centres per village is the highest in Thiruvanthapuram district and Thrissur and Kasargod comes next. Its ratio is the lowest in Alleppy district

3.3. Fishing crafts

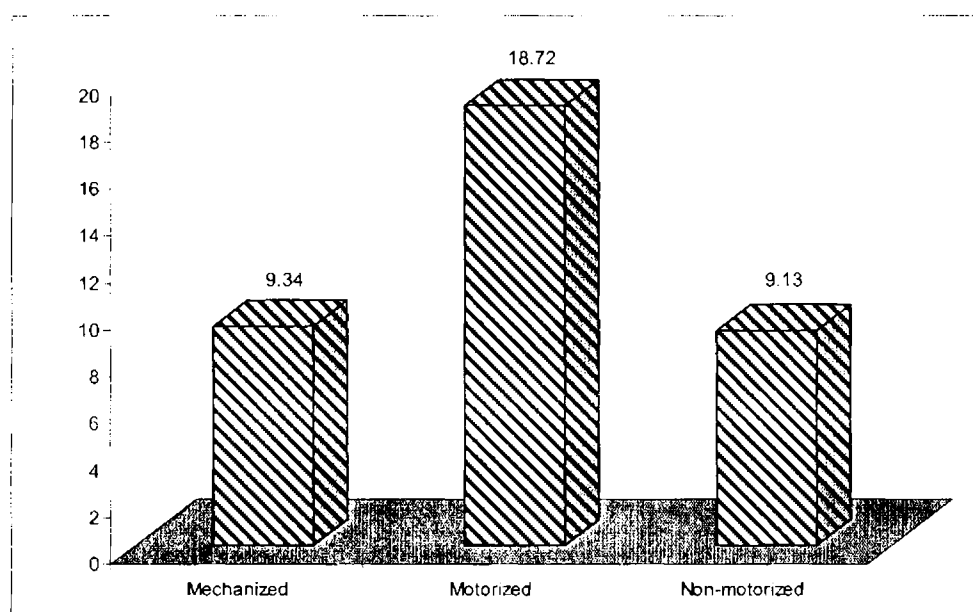
Table 3.4 and chart 3.4 give information regarding the number of fishing crafts in Kerala well an in India.

Table 3.4.
Fishing Crafts in Kerala to India

Fishing Crafts	Kerala	India	Per cent
Mechanized	5,504	58,911	09.34
Motorized	14,151	75,591	18.72
Non-motorized	9,522	1,04,270	09.13
Total	29,177	2,38,772	12.22

Source: Central Marine Fisheries Census -2005

Chart. 3. 4. Fishing Crafts in Kerala to India



To exploit the fishery potential of 7.5 million metric tonnes, Kerala uses 5,504 mechanised, 14,151 motorised and 9522 non-motorised crafts. This accounts 12.22 per cent of the total fishing crafts of the Indian coasts. For the exploitation of the fishery resources from the seas, India uses a fleet of 1, 04,270 non-motorised, 75,591 motorised and 58911 mechanised boats. They include 495 purse seines, 242 ring seines, and 834 long liners.

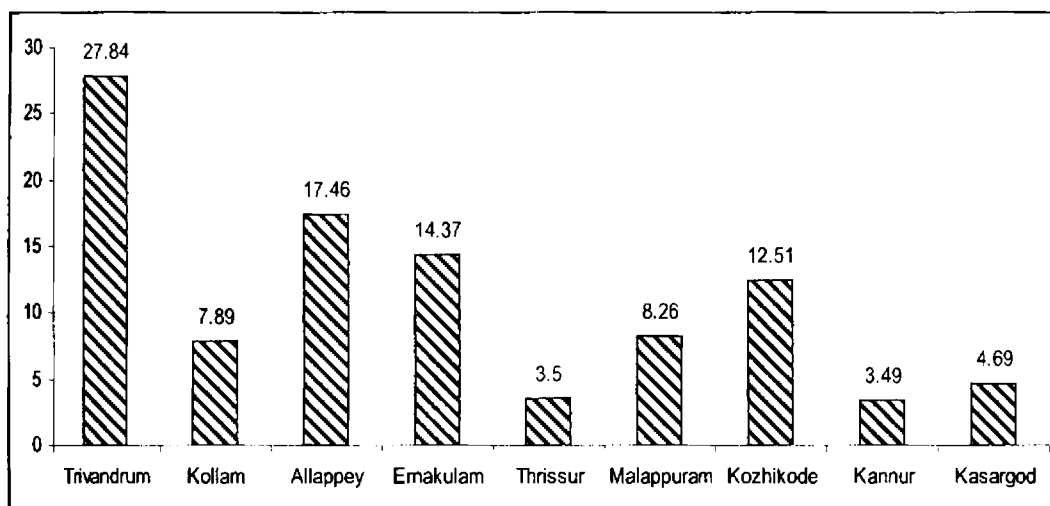
Table 3.5 and chart 3.5 give information regarding fishing crafts operating in the coast of Kerala.

Table 3.5.
Fishing Crafts - Kerala

Fishing crafts	Mechanised	Motorised	Non motorised	Total	Percent
Trivandrum	55	3063	5005	8123	27.84
Kollam	1272	605	425	2302	07.89
Allappey	136	3947	1010	5093	17.46
Ernakulam	1898	1104	1190	4192	14.37
Thrissur	259	456	306	1021	03.50
Malappuram	441	1607	361	2409	08.26
Kozhikode	1034	1976	641	3651	12.51
Kannur	226	503	290	1019	03.49
Kasargod	183	890	294	1367	04.69
Total	5504	14151	9522	29177	100

Source: Central Marine Fisheries Census -2000

Chart. 3.5. Fishing Crafts - Kerala



The highest concentration of crafts is found in Thiruvananthapuram district. In the study area, around 26.13 percent of the total crafts of the state are operating. Moreover, Emakulam district alone, 14.37 percent of the total crafts of the state are operating.

Table 3.6 and chart 3.6 give information regarding the category of fishing crafts and their number over the period from 1985- 89 to 2004-2005.

Table. 3.6.

Increase in Fishing Crafts in Kerala

Category of crafts/ Year	Mechanized	Motorised	Non- motorised	Total	Increase/decr ease
1988-89	3548	9914	20545	34007	----
1998-99	4040	27094	21598	52732	18725
1999-00	4194	28829	21751	54774	2042
2000-01	4150	29144	21854	55148	374
2001-02	4150	29395	21956	55501	353
2002-03	4150	29395	21956	55501	0
2003-04	4150	29395	21956	55501	0
2005*	5504	14151	9522	29177	-26324

Source; Directorate of Fisheries –Economic Review – various issues

*Marine Fisheries Census, 2005, CMFRI, Economic Review 2006. #not available

Chart. 3.6. Increase in Fishing Crafts in Kerala

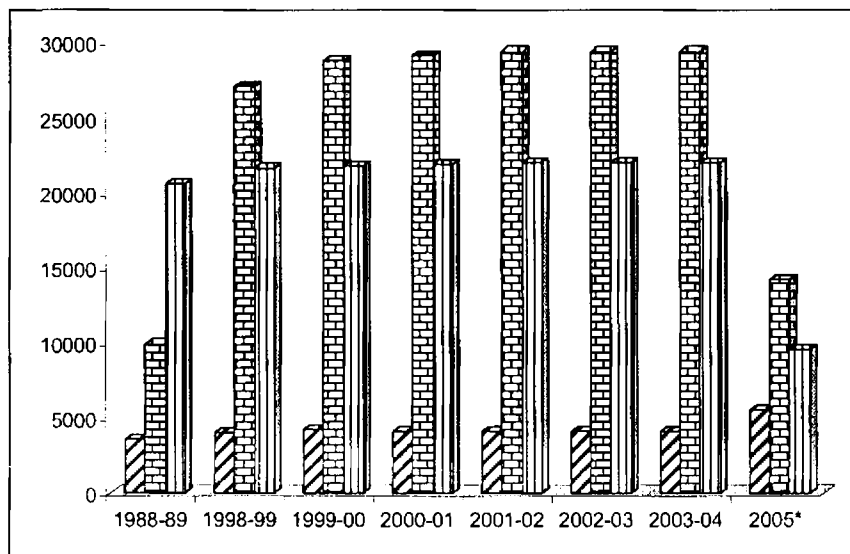


Table 3.6 and chart 3.6 reveal that during the decade from 1988 to 1998, there was a tremendous increase in crafts i.e., around 18725 and the increase is substantial in the motorised sector. In the subsequent years, there was increase, but at a lower rate. During the year 2002-03, there was neither increase nor decrease. The increase in motorised sector is very glaring. It has increased from 9914 in 1988 to 27094 in the year 1998.

The Marine fisheries Census, conducted by CMFRI during the year 2005 reveals that the total number of crafts are only 29177. The records of the planning department upto 2003 shows that the total number of crafts were 55, 501 and there was no change in the number of crafts since 2002-03. The increase was only in mechanised boats. It increased from 4150 to 5504 while motorised boats decreased from 29395 to 14,151 and non-motorised crafts from 21, 956 to 9522.

3.4. Fish Production

The intense exploitation of shrimps, lobsters, and fin fishes has resulted in a decline of such species. It also has put great pressure on other fish populations because large quantities of by-catch are mostly discarded at sea. Destructive fishing methods in the Exclusive Economic Zone (EEZ) have also led to a decline of coastal fishery resources.

Marine fish capture in India has increased from 2.97 million metric tonnes in 1996 to 3.76 million metric tonnes in 2006. However, from 1998 the amount of fish caught is fluctuating.

Table 3.7 and chart 3.7 provides information regarding fish capture in India and Kerala during 1996 to 2006.

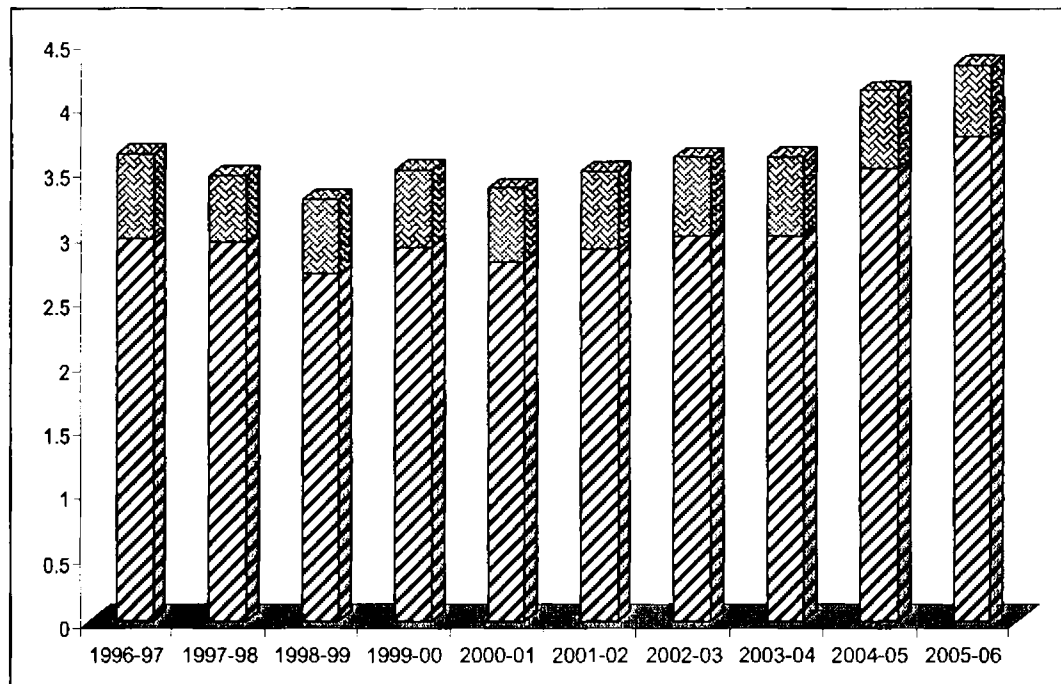
Table- 3.7.

Indian capture fisheries (in million metric tons)

Year	Capture (India)	Capture (Kerala)*
1996-97	2.97	.661
1997-98	2.95	.511
1998-99	2.70	.582
1999-00	2.91	.594
2000-01	2.80	.567
2001-02	2.90	.594
2002-03	3.00	.603
2003-04	3.00	.608
2004-05	3.52	.602
2005-06	3.76	.559

Source: FAO, 2002, * Economic Review - various issues,
Economic Survey of India -various issues

Chart. 3.7. Indian capture fisheries (in million metric tons)



A scrutiny of table 3.7 and chart 3.7 reveal that capture fisheries production increased to 3.76 million metric tonnes in 2006 as compared to 2.97 million metric tonnes in 1996. This reveals the general trend in most of the world's fishing areas. It apparently shows the maximum potential is attained in the case of capture fisheries production.

Table 3.8 and chart 3.8 provide information regarding fish production in Kerala

Table. 3. 8.

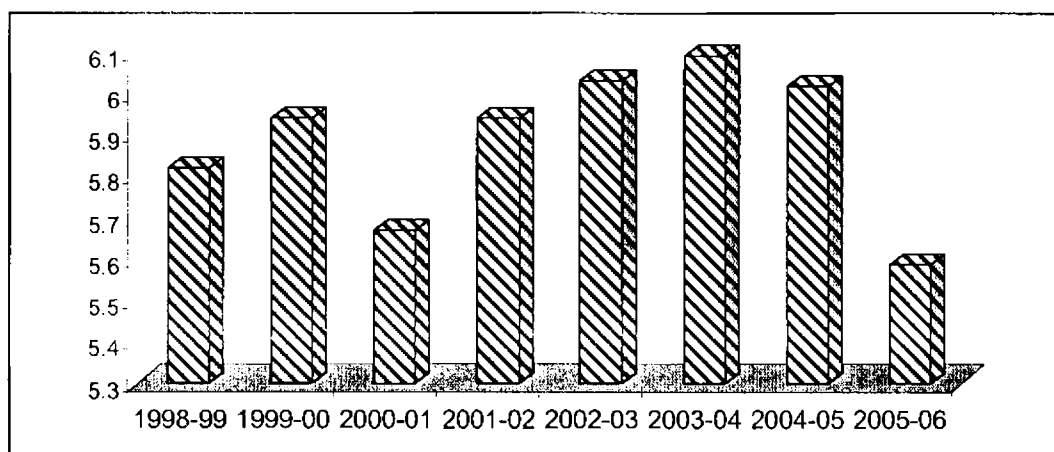
Fish Production in Kerala

Year	Fishing crafts	Production Lakh metric tonnes
1998-99	52732	5.82
1999-00	54774	5.94
2000-01	55148	5.67
2001-02	55501	5.94
2002-03	55501	6.03
2003-04	55501	6.09
2004-05	55501	6.02
2005-06	29177	5.59

Source: Economic Review-various issues

Chart. 3. 8.

Fish Production in Kerala



It is clear from Table 3.8 that fish production did not increase much in spite of the increase in the number of fishing crafts. Moreover, during the year 2000-01 there was slight decline in production. But from 2001 -02 there was slight increase, and production went up from 5.67 lakh metric tonnes during 2000-01 to 6.09 lakh metric tonnes in 2003-04. During the years from 2004 to 2006 there is a decline in the fish production as well as in the number of crafts. The production in 2006 is below the production in 1998-99.

Table 3.9 and chart 3.9 depict information regarding the households, which do not have either crafts or gears or both.

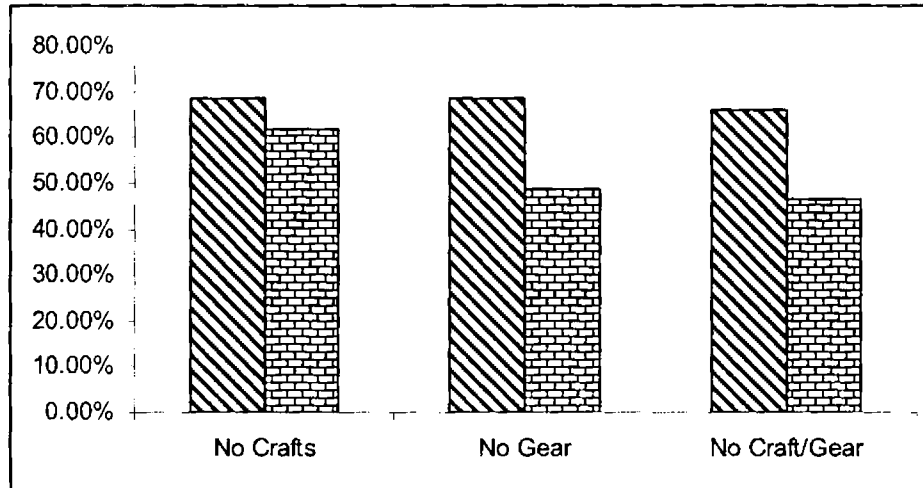
Table 3.9.

Have nots of Kerala and India

No. of Families	Kerala	India	Percentage
No Crafts	82,772 (68.7%)	4,66,676 (61.71%)	17.74
No Gear	82,554 (68.52%)	3,69,364 (48.84%)	22.35
No Craft/Gear	79,438 (65.93%)	3,53,121 (46.70%)	22.50
Total Number of Families	120486	7,56,212	

Source: Central Marine Fisheries Census -2005

Chart. 3.9. Have nots of Kerala to India



Though Kerala coastal waters are crowded with mechanised, motorised and non-motorised crafts, majority of the fisher folk are working in the crafts as fish workers. Table 3.9 and chart 3.9 show that 68.70 per cent of families do not have any crafts and 65.93 per cent of families do not have either crafts or gear and 68.52 per cent do not have any gear. At the national level, the situation is little more favourable. The households having no craft was only 61.71 per cent, those having no gear was only 48.84 per cent, and those having no gear or craft were only 46.70 per cent during the period under consideration.

Table 3.10 and chart 3.10 provide district-wise information of families who do not have crafts, gear or crafts or gear.

Table. 3.10.

District wise Have Nots in Kerala

District	No craft	No gear	No craft/gear	Total Number of families	Percent of families in each district
Trivandrum	24740	24267	23677	34128	28.33
Kollam	6438	6414	6336	11899	09.88
Allappey	16419	16442	15975	21759	18.06
Ernakulam	5769	5497	5183	8876	07.37
Thrissur	4638	4710	4528	6598	05.48
Malappuram	6976	7272	6765	10462	08.68
Kozhikode	11512	11692	10922	16058	13.32
Kannur	3794	3837	3703	5929	04.92
Kasargod	2486	2423	2349	4777	03.96
Total	82772	82554	79438	120486	100.00
Percent of families	69.70	68.51	65.93		

Source: Central Marine Fisheries Census -2005

Chart. 3.10. District wise Have Nots in Kerala

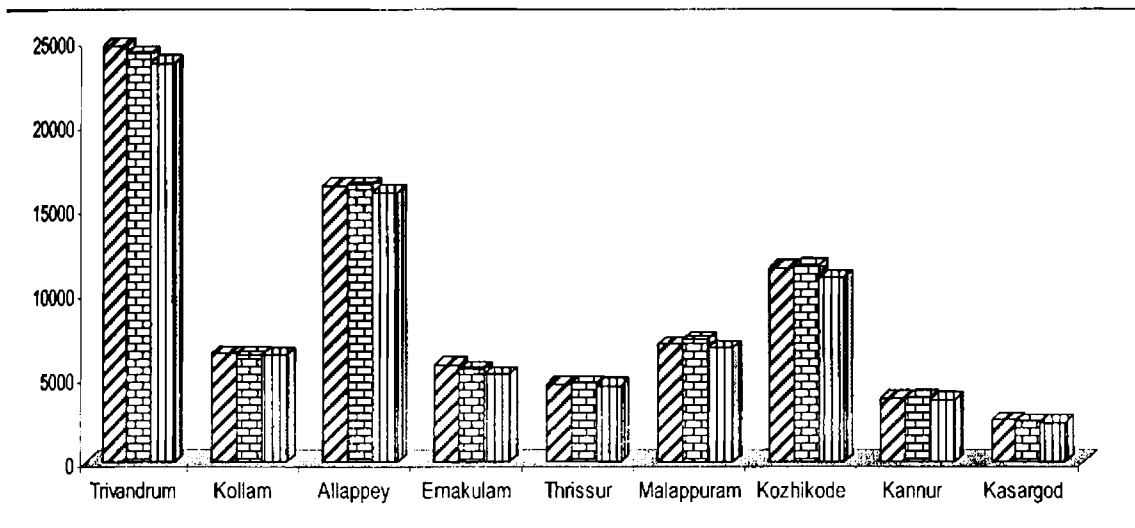


Table 3.10 and chart 3.10 give a picture of the families having no crafts, no gear or no craft and gear. Almost 69 percent of the families have neither craft nor gear. Another 65 percent have no craft and gear.

3.5. Fisher folk population

In India the 3.5 million marine fishermen are living in 0.76 million households spread over 3,202 fishing villages. In Kerala 0.6 million fishermen population live in 012 million households spread over 222 fishery villages and in the case of number of families, it is 15.93 per cent on an all India basis.

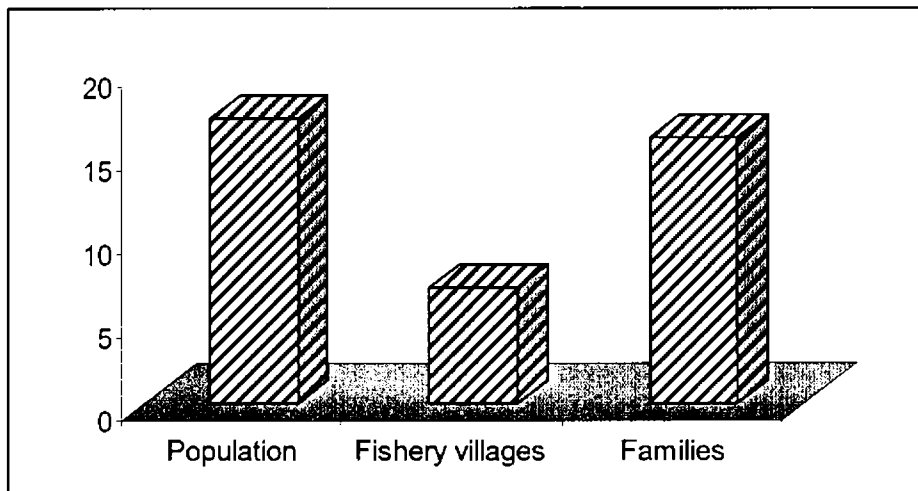
Table 3.11.

Fisher folk Population Villages and Families of Kerala and India

	Kerala	India	Percentage
Population	6,02,234	35,19,116	17.11
Fishery villages	222	3,202	6.93
Families	1,20,486	7,56,212	15.93
Size of the family	5	4.65	

Source: Central Marine Fisheries Census -2005

Chart. 3.11. Population Villages and Families of Kerala to India



Fishery population of Kerala forms 17.11 percent of Indian population. They are spread over 222 fishing villages, which form 6.93 percent of all the Indian villages. They are accommodated in 15.93 percent of families on an all India basis. Regarding the size of families, Kerala have the highest rate viz., 5 as compared to 4.65 on an all India basis.

Table 3.12 and chart 3.12 present information regarding fishermen population, fishing villages and the size of the fishermen families in different districts in Kerala.

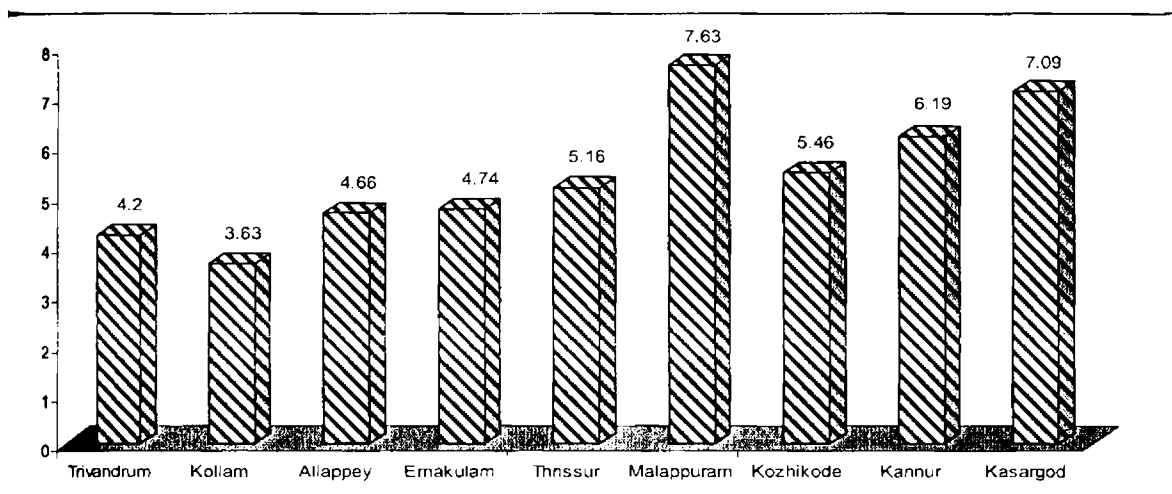
Table. 3.12.

Population, Fishery Villages, Number and Size of Families

District	Population	Fishery villages	Families	Size of the family
Trivandrum	143436	42	34128	4.20
Kollam	43210	26	11899	3.63
Allapppy	101341	30	21759	4.66
Ernakulam	42069	21	8876	4.74
Thrissur	34078	18	6598	5.16
Malappuram	79858	23	10462	7.63
Kozhikode	87690	35	16058	5.46
Kannur	36686	11	5929	6.19
Kasargod	33866	16	4777	7.09

Source: Central Marine Fisheries Census -2005

Chart. 3.12. Size of Fisherman Families



The family size of the fishermen population varies from 3.63 in Kollam district and 7.63 in Malappuram district. The average size of the family in the state is only 5. The family size in Thiruvananthapuram, Kollam, Allapppy, and Ernakulam districts is less than the state average. Kollam has the lowest number of person per family (3.63) and Malappuram, the maximum (7.63).

3.6. Community of the fisher folk

At the national level, Hindus constitute 74.10 per cent of the total fisher folk families followed by Christians (16.60 per cent) and Muslims (9.20 per cent). In Kerala, Christians (42.4 per cent) dominate the fisher folk families followed by Hindus (30.70 per cent) and Muslims (26.9 per cent) (Marine Fisheries census-2005).

In the district of Ernakulam, 49 per cent of the fisher folk are Hindus, followed by 48 per cent Christians and 3 percent Muslims. In Thrissur district, Hindus constitute 62 per cent and Muslims, 38 per cent. In Malappuram, Muslims dominate (97 per cent) and Hindus accounts only 3 percent. (GOK, 1990 b, techno-socio economic survey of fisher folk in Kerala, department of fisheries, Thiruvananthapuram; Table 2.4 and chart 2.3)

3.7. Occupational profile

For majority of the fisher folk, fishery is the main source of their livelihood. Occupational profile of fisherman folk in India and Kerala are given in the Table 3.13 and chart 3.13.

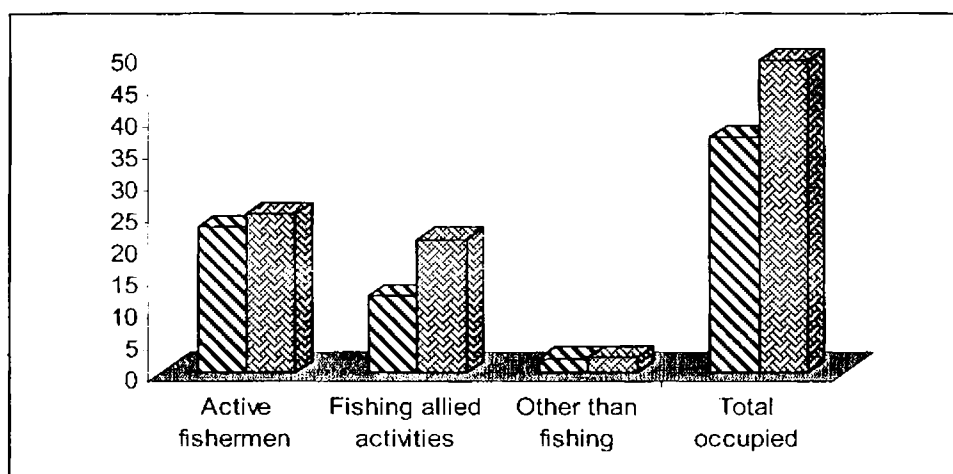
Table 3.13.

Occupational Profile of Kerala and India

	Kerala	India	Per cent
Active fishermen	1, 40,222 (23%)	8, 89,528 (25%)	23
Fishing allied activities	71,074 (12%)	7,56,391 (21%)	21
Other than fishing	13,310 (2.21%)	83,073 (2.36%)	16
Total occupied	2,24,606 (37%)	17,28,992 (49%)	13
Total fisher folk population	6,02,234	35,19,116	17

Source: Central Marine Fisheries Census -2005

Chart. 3.13. Occupational Profile of Kerala and India



It is clear from Table 3.13 and chart 3.13 that only 23 per cent of the total population of Kerala is active in fishery, whereas the active fisher folk in India is 25 per cent. Twenty one percent is involved in fisheries allied activities on an all India basis. But it is only 12 percent in Kerala. The occupational level in other than fishing activities is almost the same in Kerala as well as on an all India basis. Again 49 percent of Indian fishermen population is occupied in fishing, allied or other activities but it is only 37 percent in Kerala.

Table.3.14.

Occupational Profile

District	Active	Allied	Other than Fishing	Total occupied	Total fisher folk Population	Percent of active fishermen to total
Trivandrum	38805	25323	2066	66194	143436	27
Kollam	8665	6515	1166	16346	43210	20
Alappay	25255	10740	3158	39153	101341	25
Ernakulam	9713	6057	1693	17463	42069	23
Thrissur	7054	2668	288	10010	34078	21
Malappuram	16422	5583	1153	23158	79858	21
Kozhikode	20119	7787	1806	29712	87690	23
Kannur	6470	2100	1070	9640	36686	18
Kasargod	7719	4301	910	12930	33866	23
Total	140222	71074	13310	224606	602234	23

Source: Central Marine Fisheries Census -2005

Chart. 3.14. Occupational Profile

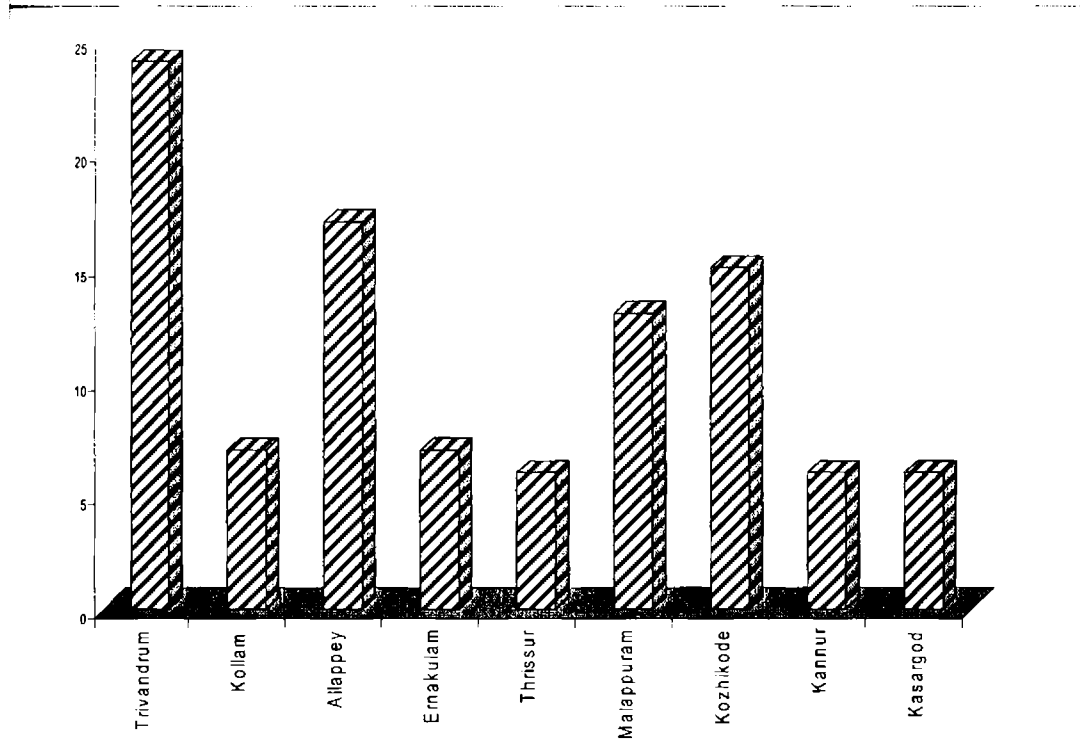


Table 3.14 and chart 3.14 present information regarding the occupational profile of fishermen in the districts of Kerala. The occupational level of fishermen population ranges from 6 percent to 24 percent. The highest occupational fishermen population is found in Thiruvananthapuram. It is the lowest in the districts of Thrissur, Kannur and Kasargode.

Table 3.15.

Active Fishermen in Kerala and India

Period	India	Kerala
Full Time	7,17,999 (86.55)	1,24,103 (88.50%)
Part time	1,17,628 (14.12)	10,488 (7.48)
Occasional	53,901 (6.50)	5,631 (4.02)
Total active fishermen	8,89,528	1,40,222

Source: Central Marine Fisheries Census -2005. Figures in brackets indicate percentages.

Chart 3.15. Active Fishermen in Kerala and India

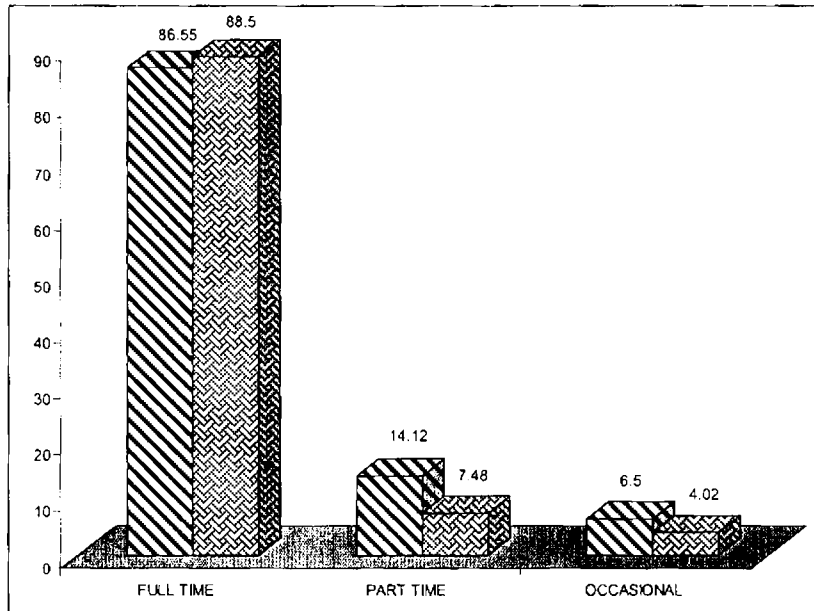


Table 3.15 and chart 3.15 show that of the 8, 89,528 fishermen in India only 7,17,999 are actively engaged in fishing. This accounts 86.55 percent of the total fishermen. Around 6.5

percent are engaged in occasional fishing and 14.2 percent, part-time fishing. They go for fishing only during seasons or when they expect a good catch, or when they have no other alternative employment. But in Kerala, full time fish workers accounts 88.5 percent which is slightly higher than the national level.

Table. 3. 16.

Active Fishermen in Kerala

District	Full time	Part time	Occasional	Total active	Percent
Trivandrum	32199	4586	2020	38805	28
Kollam	8255	201	209	8665	06
Allaphey	23783	1079	393	25255	18
Ernakulam	7707	1638	368	9713	07
Thrissur	6329	261	464	7054	05
Malappuram	14384	992	1046	16422	12
Kozhikode	18740	751	628	20119	14
Kannur	5837	332	301	6470	05
Kasargod	6869	648	202	7719	06
Total	124103	10488	5631	140222	

Source: Central Marine Fisheries Census -2005

Chart. 3. 16. Active Fishermen in Kerala

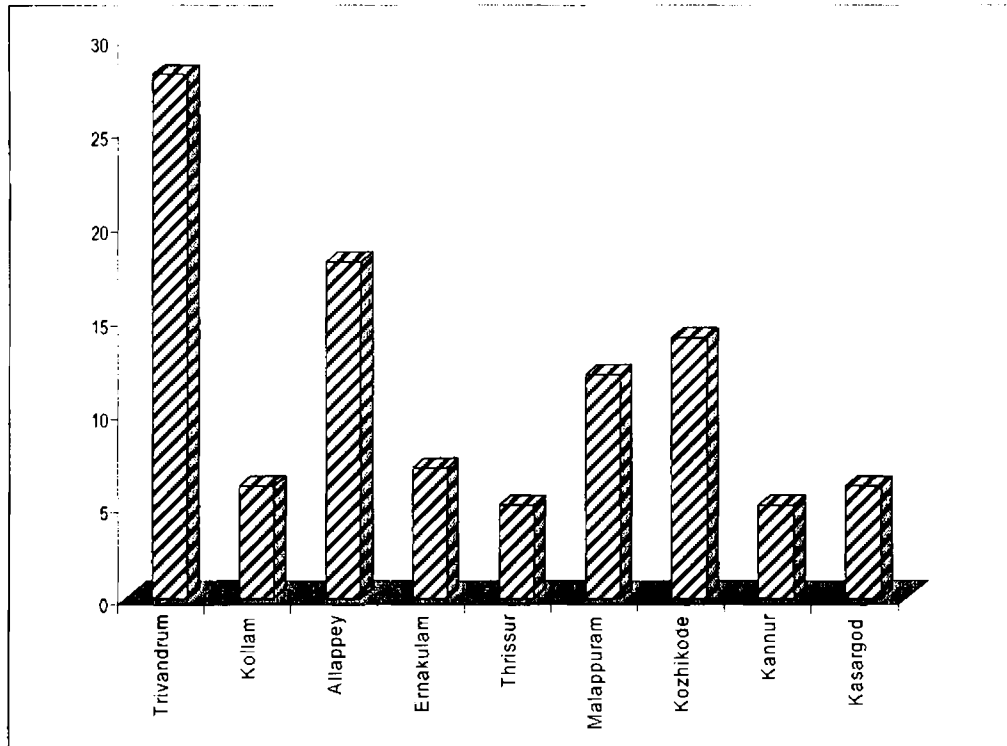


Table 3.16 and chart 3.16 present district-wise information about full-time, part-time and occasional fishermen in Kerala. Table 3.16 and chart 3.16 show that the percentage of active fishermen in the state varies from 5 percent in Kannur district to 28 percent in Thiruvananthapuram district. Next is Allapppy followed by Kozhikode and Malappuram.

3.8. Membership in Cooperative Societies

Co-operativisation is considered as a bonanza for the downtrodden to achieve their objective of sustainable livelihoods through cooperative effort. With this end in view, a number of

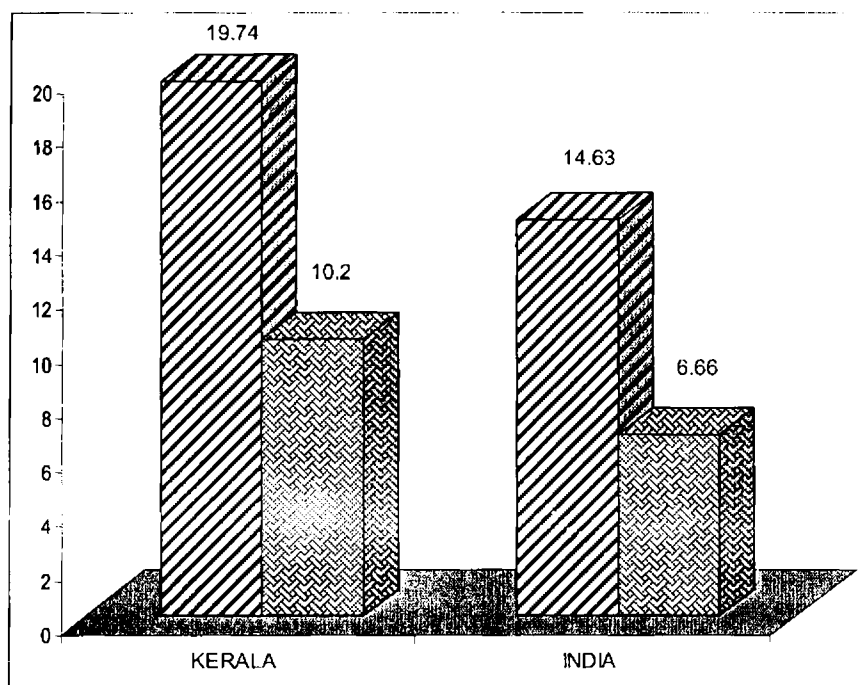
cooperative societies were formed all over the coastal villages. However, the fisher folk are taking membership only on persuasion, even though a number of schemes were introduced to uplift their conditions through cooperative endeavor. Table 3.17 and chart 3.17 present information in this aspect.

Table 3.17.
Membership in Cooperatives

Membership	Kerala	India
Fisheries cooperatives	1,18,906 (19.74)	5,14,703 (14.63)
Other cooperatives	61,479 (10.20)	2,34,353 (6.66)
Total fisher folk population	6,02,234	35,19,116

Source: Central Marine Fisheries Census -2005.

Chart. 3.17. Membership in Cooperatives



At the national level, one out of five fisher folk is a member of some co-operative society (fisheries or others) and about 15 per cent have membership in fisheries co-operative societies. In Kerala, out of 6,02,234 fishermen population, 1,18,906 have membership in cooperative societies. About 19.74 per cent of the fisher folk have membership in fisheries cooperative societies and about 10.2 percent have membership in other type of societies.

Table 3.18 and chart 3.18 give an account of the fishermen in fisheries and other cooperatives in each districts of Kerala.

Table. 3. 18.

Membership in Cooperative Societies

District	Fisheries cooperatives	Other cooperatives	Total fisher folk	Percent of membership in fishery co-op. to total
Trivandrum	32659	11048	43707	74.72
Kollam	10557	2851	13408	78.74
Allappee	24819	17285	42104	58.95
Ernakulam	10267	16707	26974	38.06
Thrissur	6507	6202	12709	51.20
Malappuram	8496	1290	9786	86.82
Kozhikode	13211	3654	16865	78.33
Kannur	5385	1279	6664	80.81
Kasargod	7505	1163	8668	86.58
Total	119406	61479	180885	66.01

Source: Central Marine Fisheries Census -2005

Chart. 3. 18. Membership in Cooperative Societies

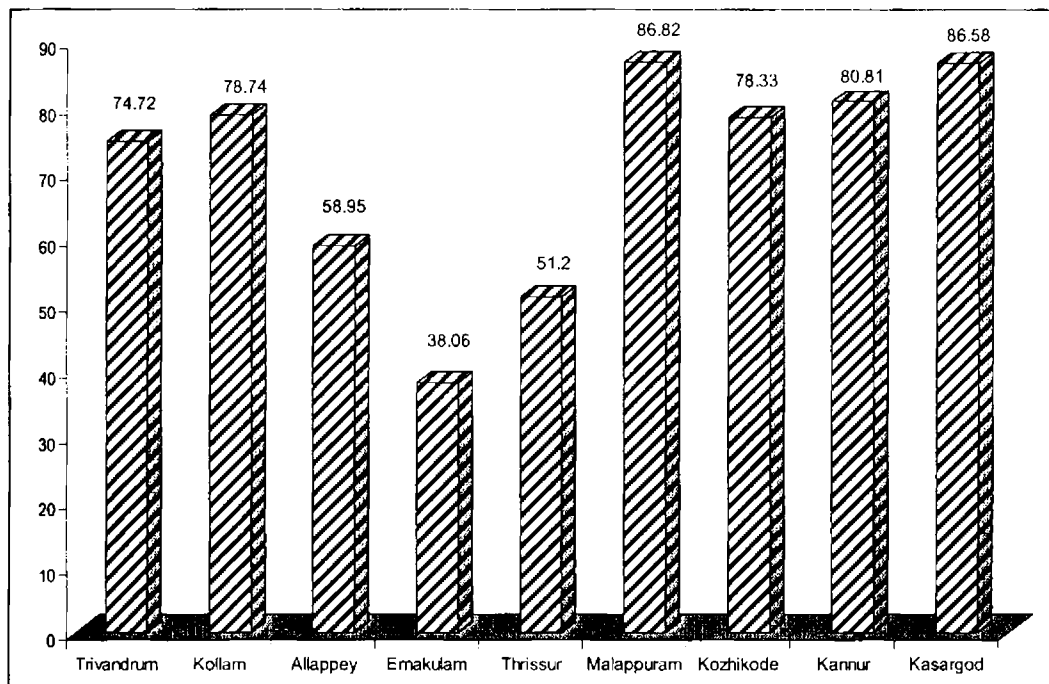


Table 3.18 and chart 3.18 present district-wise information about membership in cooperative societies. The table shows that fishermen in Malappuram district have the maximum membership (86.82Percent) and Ernakulam, the minimum 38.06Percent).

3.9. Infrastructure facilities

A large number of factors such as formulation of policies and guidelines for leasing coastal waters, identification of potential areas, resource specific vessels for exploitation of deep-sea resources, development of fisheries infrastructure facilities on landing sites, harbours and establishing cold storage chain from production to

consumption, etc affect the development of fisheries sector. The socioeconomic conditions of fisher folk depend on the factors mentioned above.

All the states in India have built-up infrastructure facilities as shown in the Table 3.19 and chart 3.19.

Table 3.19 and chart 3.19 give information with respect to facilities available to Kerala vis-à-vis in India

Table 3.19.

Infrastructure Facilities Directly Related to Fishing

Infrastructure	Kerala	India	Percentage
Boat yards	112	224	46.53
Ice plants	315	905	34.81
Cold storages	31	108	28.70
Freezing plants	56	113	43.85
Canning plants	00	13	00
Curing yards	414	992	41.73
Peeling sheds	153	293	52.22
Peeling sheds	4	46	08.69

Source: Central Marine Fisheries Census -2005

Chart. 3.19. Infrastructure Facilities Directly Related to Fishing

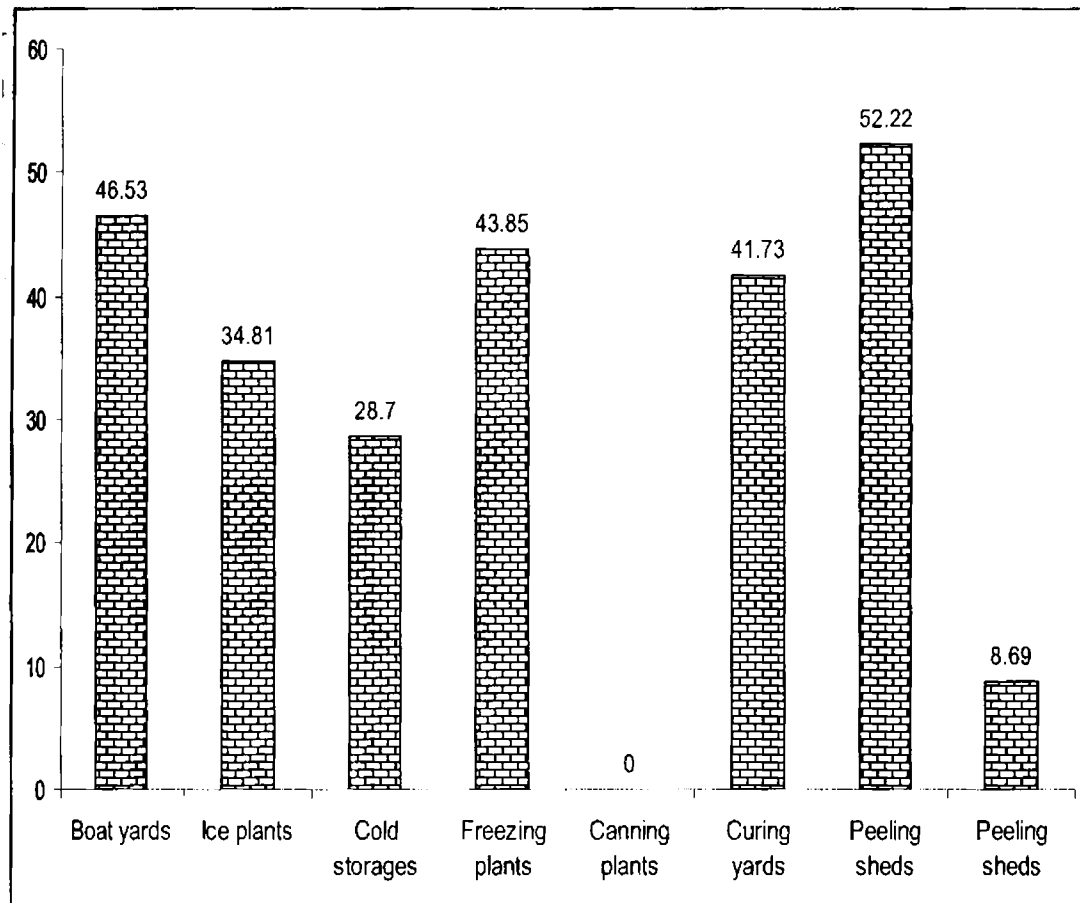


Table 3.19 and chart 3.19 reveal that Kerala has about 46.53 per cent of boatyards, 43.85 per cent of freezing plants 52.22 per cent of peeling sheds and 41.73 per cent of the curing yards in India. But there is no canning plant in Kerala.

Table. 3. 20.

Infrastructure Facilities Directly Related to Fisheries

District	Boat yards	Ice plants	Cold Storages	Freezing plants	Curing yards	Peeling sheds	Fish meal Plants
Trivandrum	25	19	3	2	0	2	0
Kollam	19	45	7	20	10	29	0
Allaphey	18	62	16	15	52	93	0
Ernakulam	17	57	3	17	2	12	0
Thrissur	2	12	0	0	12	6	0
Malappuram	1	16	0	0	3	0	0
Kozhikode	21	64	2	2	288	11	4
Kannur	9	25	0	0	47	0	0
Kasargod	0	15	0	0	0	0	0
Total	112	315	31	56	414	153	4

Source: Central Marine Fisheries Census -2005

Chart. 3. 20. Infrastructure Facilities Directly Related to Fisheries

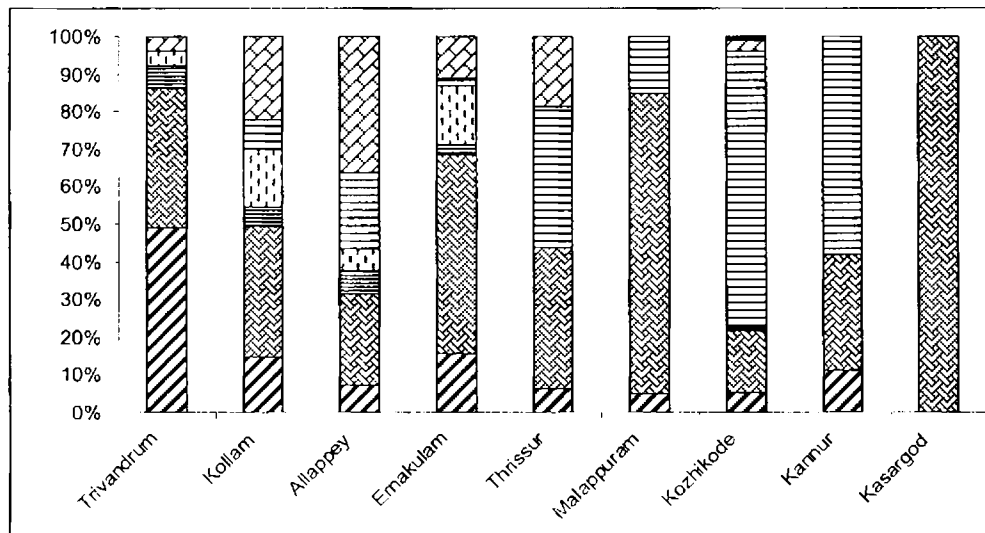


Table 3.20 and chart 3.20 provide district-wise information about the facilities available in Kerala. Trivandrum tops in the case of boat yards (25), Kozhikode , in the case of curing yards (288) , ice plants (64) fishmeal plants (4), Alleppy, in the case of cold storage (16) and Kollam, in the case of freezing plants (20). There are no cold storages, freezing plants and fishmeal plants in the study area. But there are peeling sheds for shrimps in Malappuram district.

Table 3.21 gives information about infrastructure facilities in the villages.

Table 3.21.

Facilities in the Villages

	Percent of Facilities in Kerala to total	India	Per cent
Villages electrified	222 (100)	2719 (84.92)	8.16
Villages connected by road	219 (98.65)	2546 (79.51)	8.60
Hospitals	357 (161)	2067 (64.55)	17.27
Banks	306 (138)	1336 (41.72)	22.90
Cooperative societies	381 (172)	4781 (149)	07.97
Total villages	222	3202	6.93

Source: Central Marine Fisheries Census -2005

Chart. 3.21. Facilities in the Villages

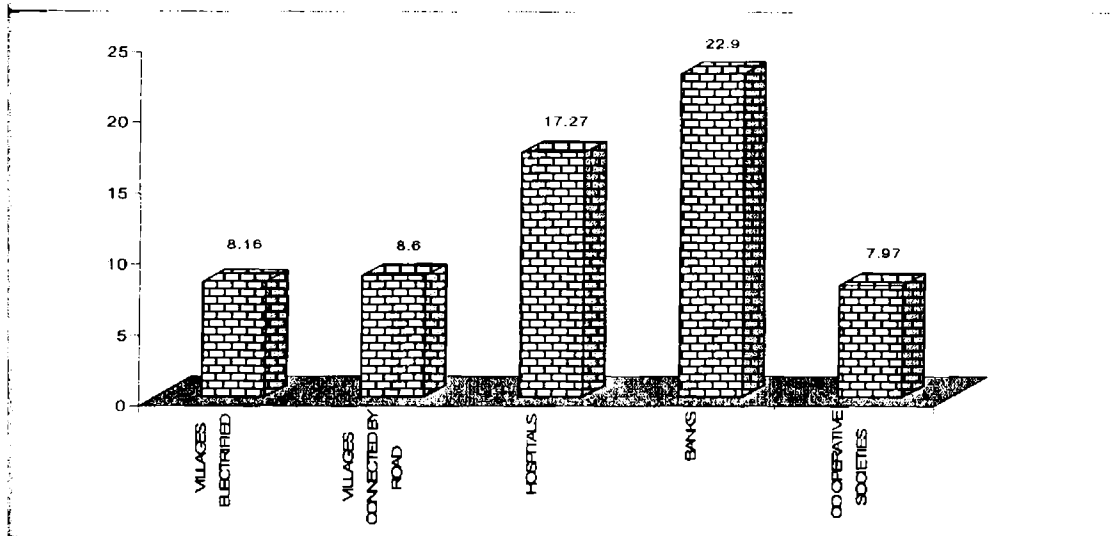


Table 3.21 and chart 3.21 show that of the 222 villages, only 219 villages are connected by roads. But all the 222 villages are electrified. There are 357 hospitals in 222 villages. It accounts 17.27 per cent of the total hospitals in India. Kerala has 22.90 percent of the banks and 07.97 percent of cooperative societies in the country.

Table. 3. 22.
Facilities in Districts of Kerala

District	Villages electrified	Villages roads	Hospitals	Banks	Co-op Societies	Total
Alwayar	42	42	61	39	53	42
Alappuzha	26	26	80	31	39	26
Alappuzha	30	30	31	33	39	30
Alappuzha	21	21	20	27	25	21
Alappuzha	18	18	30	34	34	18
Alappuzha	23	23	27	34	38	23
Alappuzha	35	35	52	51	75	35
Alappuzha	11	11	24	38	46	11
Alappuzha	16	13	32	19	32	16
Total	222	219	357	306	381	222

Source: Central Marine Fisheries Census -2005

Chart. 3. 22. Facilities in Districts of Kerala

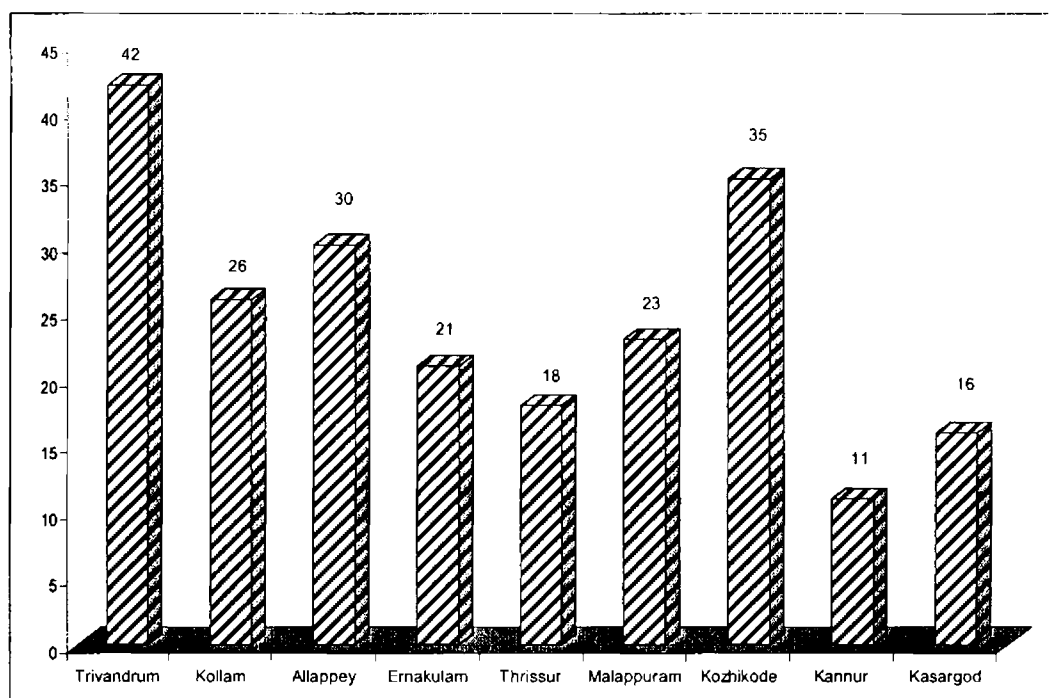


Table 3.22 and chart 3.22 depict the facilities available within the state. All villages are electrified and have motorable roads. All the districts of Kerala have hospitals, banks and cooperative societies. In Ernakulam district, there are only 20 hospitals for 21 villages.

Table 3.23 and chart 3.23 provide information with respect to housing facilities in the fishery villages.

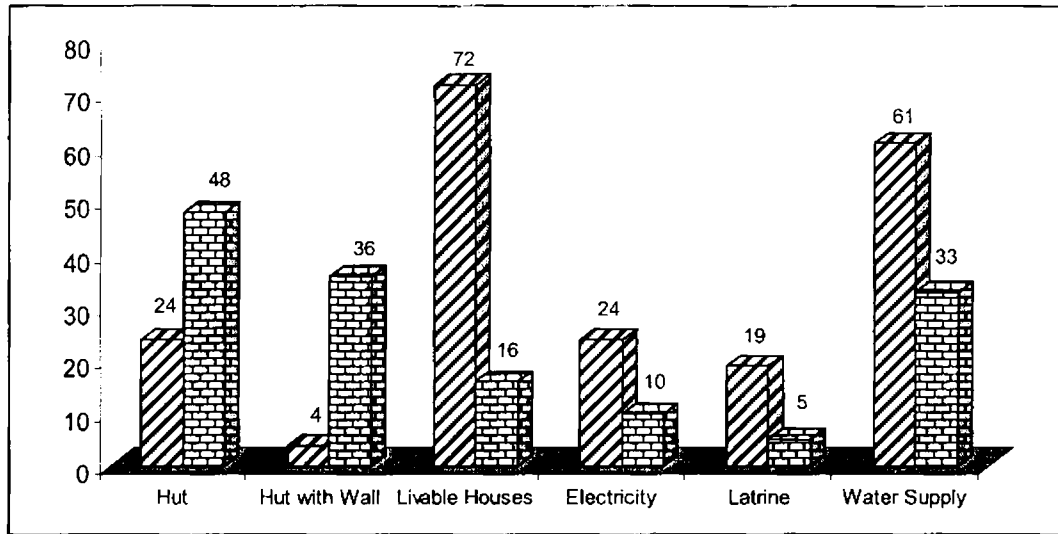
Table. 3. 23.

Housing Facilities in Fisheries Villages

	Hut	Hut with Wall	Livable houses	Electricity	Latrine	Water supply
Kerala	24	4	72	24	19	61
Fisheries sector	48	36	16	10	5	33

Source: Kurian. 1995.

Chart. 3. 23. Housing Facilities



Forty-eight per cent of the houses are thatched huts in the fishery sector. Sixteen per cent of the houses have only ordinary living facilities. Of these, 10 per cent families have electricity and 33 per cent, drinking water facility. Only five per cent families have sanitary facilities.

3.10. Housing in India and Kerala

There are 1, 20,486 fishing families in Kerala located in the 222 fishing villages. But there are only 1, 19,869 houses to accommodate these fishing families. This means that 617 families having no accommodation. Moreover, 24.63 per cent of the houses are categorized as kutchha houses. Compared to all- India standards, the situation is much better. At the all-India level, there are 6, 70,447 houses to accommodate 7, 56, 212 fishermen families, and out of these 37.89

percent belong to the category of kutcha houses. Table 3.24 and chart 3.24 give details.

Table 3.24.

Housing Facilities in India and Kerala

Particulars	Kerala	India	Percentage
No. of villages	222	3202	16.53
No. of families	1,20,486	7,56,212	15.93
Kutcha houses	29,524 (24.63%)	37.89%	
Pucca houses	90,344 (75.37%)	62.11%	
Total no. of Houses	119868	670447	17.88

Source: Central Marine Fisheries Census 2005.

Chart. 3.24. Housing Facilities in India and Kerala

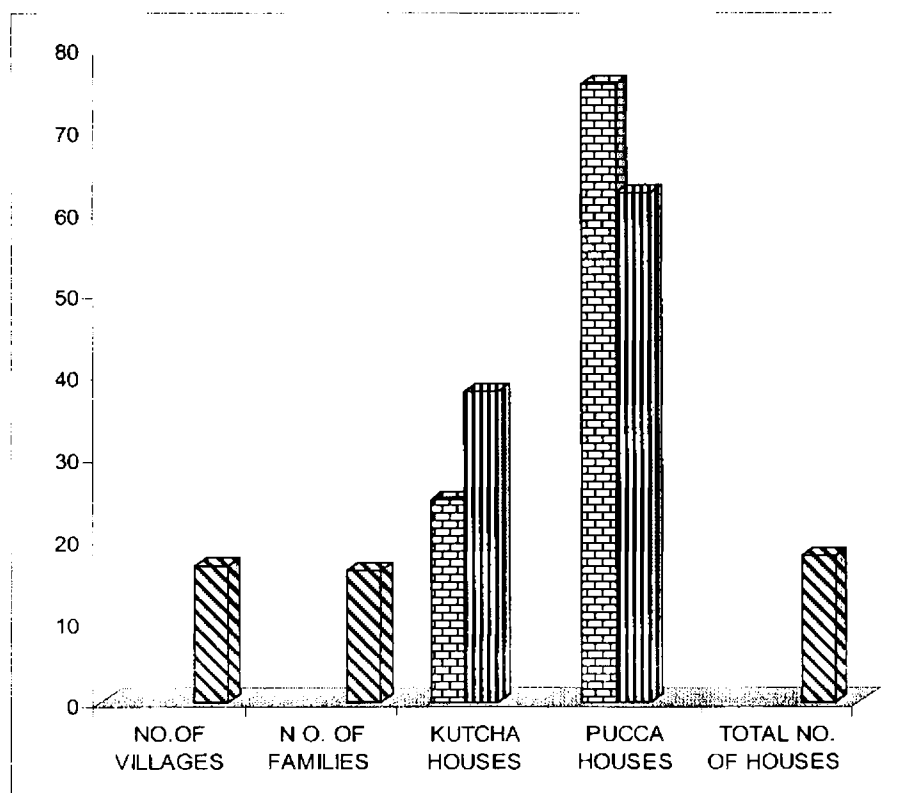


Table 3.25 and chart 3.25 give information about housing facilities in the districts of Kerala.

Table 3.25.
Housing Facilities in Kerala

Districts	Kuchha houses Percent	Pucca houses Percent	Total- houses	No. of Families
Trivandrum	40.18	59.82	33953	34128
Kollam	24.14	75.86	11838	11899
Allapppy	3.37	96.63	21647	21759
Ernakulam	14.52	85.48	8830	8876
Thrissur	53.18	46.82	6564	6598
Malappuram	47.81	52.19	10408	10462
Kozhikode	8.18	91.82	15976	16058
Kannur	2.97	97.03	5899	5929
Kasargod	21.35	78.65	4752	4777
Total	24.63	75.37	119868	120486

Source: Central Marine Fisheries Census -2005, Part 3 (6) Kerala

Chart. 3. 25. Housing Facilities in Kerala

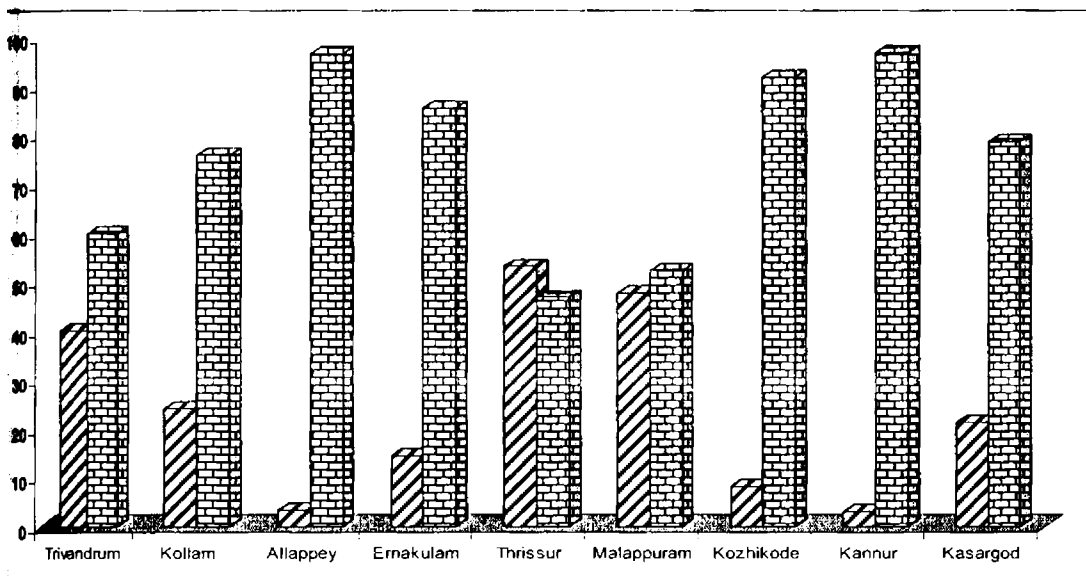


Table 3.25 and chart 3.25 reveal that in the study areas viz., Ernakulam, Thrissur and Malappuram districts, the percentage of pucca houses are 85.48, 46.82 and 52.19 respectively. Compared to other districts, the distribution is not very impressive.

3.11. Educational Standards and Institutions.

Table 3.26 and chart 3.26 highlight the educational standards of fishermen in India and Kerala.

Table 3.26.

Educational Standards of Fisherfolk in India

	Primary- below 4 th std	10 th and below	Above 10 th std	<i>illiterate</i>	Total
India	10,08,014 (28.64%)	7,83,299 (22.26)	1,96,846 (5.60%)	15,30,957 (43.50)	35,19,116
Kerala	1,71,470 (28.47)	2,18,704 (36.32%)	48,493 (8.05%)	1,63,567 (27.16%)	6,02,234
Percentage	17.01	27.92	24.63	10.68	17.11

Source: Central Marine Fisheries Census -2005

Chart. 3.26. Educational Standards of Fisherfolk in India

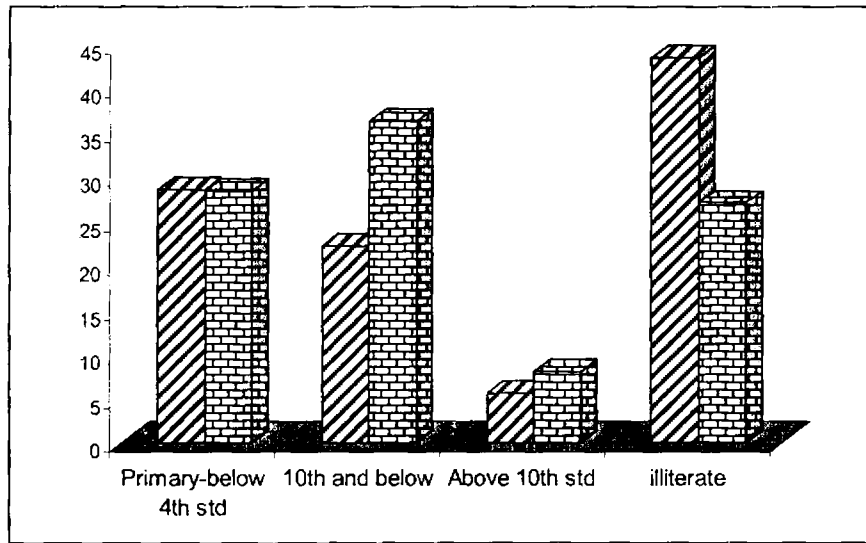


Table 3.26 and chart 3.26 reveal that of the 35,19,116 fishermen, 10,08,014 have primary education, 7,83,299, secondary and 1,96,846, above secondary education. This means that 15,30,957 have no formal education. Though Kerala is declared as a fully literate state, 10.68 per cent of the total uneducated fisher folk of India are living in Kerala.

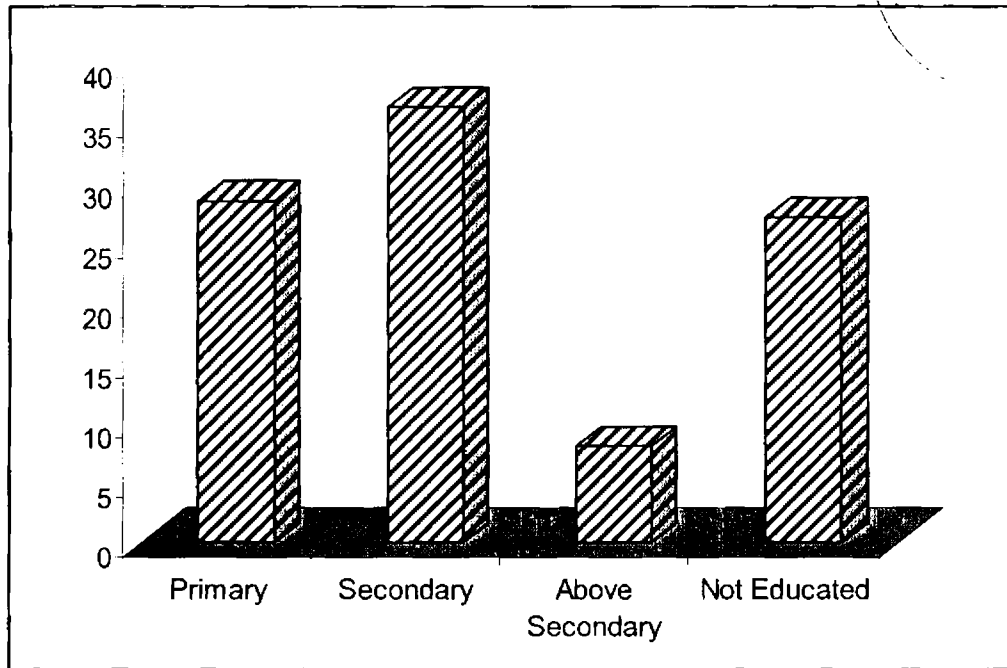
Table 3.27 and chart 3.27 present information regarding educational status of fisherfolks in the different districts of Kerala.

Table. 3. 27.**Educational Status**

District	Primary	Secondary	Above secondary	Not educated	Total
Trivandrum	36,638	47,117	9,804	49,877	1,43,436
Kollam	11,667	16,832	6,025	8,686	43,210
Allapppy	35,741	37,506	11,261	16,833	1,01,341
Ernakulam	13,532	17,674	5,051	5,812 (13.82%)	42,069
Thrissur	9,645	14,032	2,888	7,513 (22.05%)	34,078
Malappuram	19,101	21,508	1,643	37,606 (47.09%)	79,858
Kozhikode	24,626	36,940	5,970	20,154	87,690
Kannur	9,911	15,703	3,691	7,381	36,686
Kasargod	10,609	11,392	2,160	9,705	33,866
Total	1,71,470	2,18,704	48,493	1,63,567	6,02,234
Percent	28.47	36.32	08.05	27.16	100

Source: Central Marine Fisheries Census -2005, Part 3 (6) Kerala

Chart. 3. 27. Educational Status



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SUP

Even though illiteracy among the fisher folk in the state is 27.16 percent, it is 49.09 percent Malappuram district, 22.05 percent in Thrissur and 13.82 percent in Ernakulam district. Only 08.05 percent of the fisher folk have higher education. Around 36.32 percent have secondary education and 28.47 percent have only primary education.

Table 3.28 and chart 3.28 present information regarding educational institutions in the fishery villages of Kerala and India.

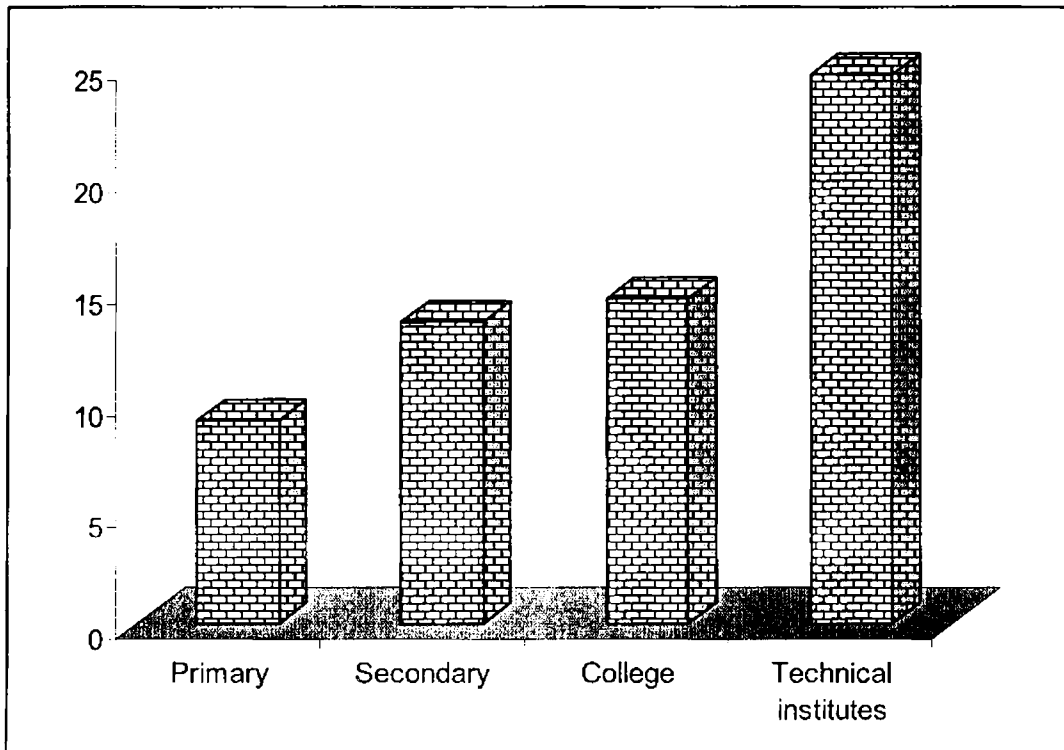
Table 3.28.

Educational Institutions in Kerala and India

	Primary	Secondary	College	Technical institutes	Total
India	5,066 (72.01%)	1,494 (21.24%)	255 (03.62%)	220 (03.13%)	7035
Kerala	458 (60.99%)	202 (26.90%)	37 (04.93%)	54 (07.19%)	751
Percentage	09.04	13.52	14.51	24.55	10.68

Source: Central Marine Fisheries Census -2005. Note: Primary-upto 4th standard, secondary - 5 to 12th standard.

Chart 3.28. Educational Institutions in Kerala



For development of education, a number of schools and colleges are functioning in the fisheries villages. Of the total educational institutions, 10.68 percent is with the state. At the same time 24.55 percent of the technical institutes and 14.51 percent of colleges are in the fishery villages of Kerala. *In primary institutions, it is 09.04 percent and 14.51 percent for secondary institutions.*

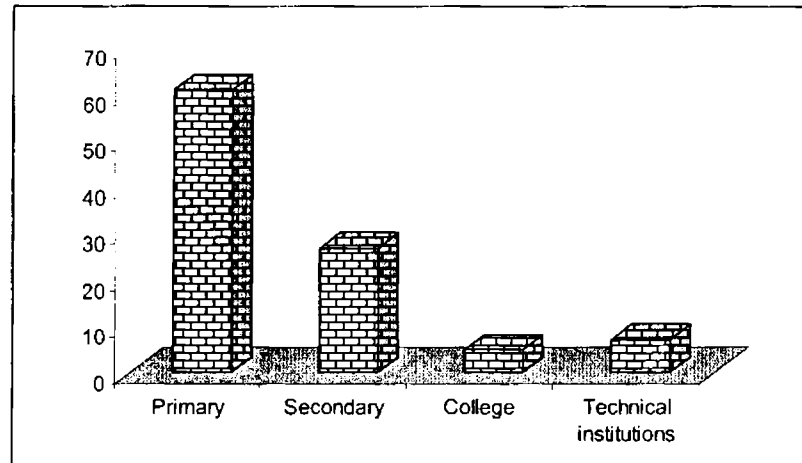
Table 3.29 and chart 3.29 present information with respect to the number of educational institutions in the districts in Kerala.

Table 3.29.
Educational Institutions in Kerala

District	Primary	Secondary	College	Technical institutions	Total
Trivandrum	59(13%)	32(16%)	4(11%)	9(17%)	104(14%)
Kollam	67(15%)	21(10%)	1(3%)	10(18%)	99(13%)
Allaphey	38(8%)	21(10%)	2(5%)	10(18%)	71(10%)
Ernakulam	29(6%)	16(8%)	0	0	45(6%)
Thrissur	49(11%)	29(14%)	2(5%)	3(5%)	83(11%)
Malappuram	36(8%)	22(11%)	12(32%)	8(15%)	78(10%)
Kozhikode	104(23%)	27(13%)	12(32%)	8(15%)	151(20%)
Kannur	42(9%)	19(9%)	3(8%)	4(7%)	68(9%)
Kasargod	34(7%)	15(7%)	1(3%)	2(4%)	52(7%)
Total	458	202	37	54	751
Percent	60.98	26.90	04.93	07.19	100

Source: Mmarine fisheries census:Census 2005 Primary-upto 4th standard, secondary – 5 to 12th standard.

Chart. 3.28. Educational Institutions in Kerala and India



Out of the 458 primary schools, Thrissur have 49, Ernakulam 29 and Malappuram 36. In the case of secondary schools, there are 29 in Thrissur, 16 in Ernakulam and 22 in Malappuram district. There are 12 colleges in fishery villages of Malappuram district. It is two in Thrissur and one is in Ernakulam district. Again, there are no technical institutes in the fishery villages of Ernakulam district. However, in Malappuram, it is eight and in Thrissur, it is three. The total educational institutions are 45 in Ernakulam, 83 in Thrissur and 78 in Malappuram. Table 3.29 and chart 3.29 furnish the details of the number of institutions in each category. It accounts for 5.99Percent of total institutions in Ernakulam districts, 11.1Percent I Thrissur district and 10.4Percent in Malappuram district. Thrissur has the second highest district having in the case of secondary schools

But the number of institutions has no impact of on the educational background of the fisher folk in Kerala. The rate of illiteracy is more as compared to the other two districts in the study area.

Chapter 4

Socio- Economic Conditions And The Role Of Government Agencies In Asset Creation

CHAPTER - 4

SOCIO-ECONOMIC CONDITIONS AND THE ROLE OF GOVERNMENT AGENCIES IN ASSET CREATION

Chapter three gives an overview of the fisheries sector. This chapter analyses the socioeconomic conditions of the fisherfolk in the study area and the role of government agencies in asset creation. Conversion of commodities into capabilities vary with a number of parameters such as age, sex, health, social relations, class background, education, ideology, and a variety of other interrelated factors. It is also influenced by per capita income as well as household income.

The socio-economic conditions of an individual are largely determined by the interaction between the individual and the society. It has an important role in shaping their views on values in cultural, social, economic and political dominions. To know the extent of influence of these variables has on individual, a detailed survey was conducted among small-scale fisher folk. The detailed analysis of the survey makes it possible to study the socio-economic conditions of the fisher folk, and the data collected are classified and tabulated accordingly.

Through the survey information was gathered with respect to their demographic characteristics i.e.; age, marital status, family size,

literacy level, ownership and possession of fishing assets and other household assets (with or without government assistance), the nature of fishing, sharing and disposal of catch, income, savings, expenditure pattern and indebtedness.

4.1 Demographic Characteristics of the Fisherfolk.

(i). Age Distribution.

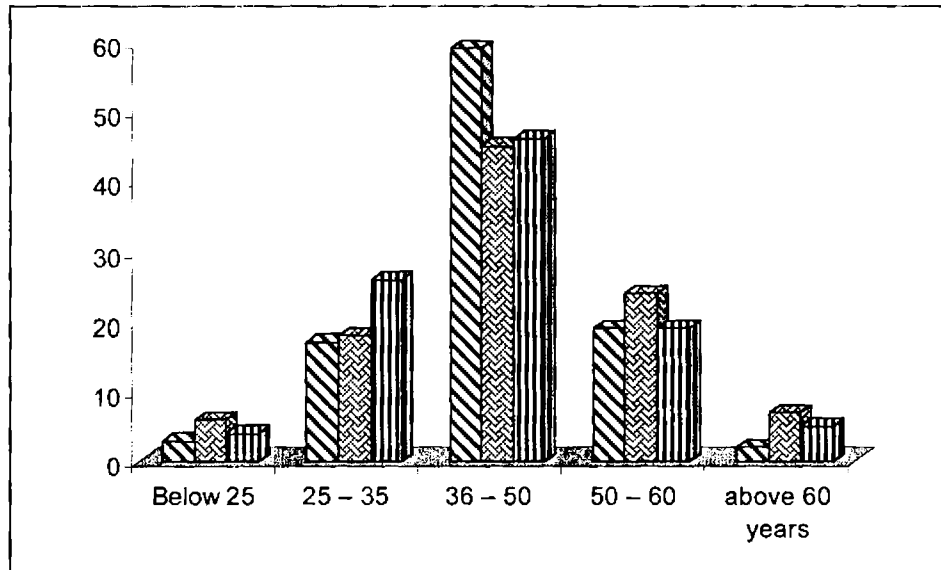
Table 4.1 and chart 4.1 reveal the age distribution of fishermen actively engaged in fishing. They are classified under five age groups, viz.; below 25, between 25-35; 36-50; 51-60 and above 60 to identify the occupational clustering of fisher folk in different age groups in the study area.

Table 4.1.
Classification According to Age.

Age group	Ernakulam	Malappuram	Thrissur	Total	
	Percent	Percent	Percent	No	Percent
Below 25	3	6	4	13	4
25 - 35	17	18	26	61	20
36 - 50	59	45	46	150	50
50 - 60	19	24	19	62	21
Above 60 years	2	7	5	14	5
Grand Total	100	100	100	300	100

Source: Field survey

Chart 4.1. Classification According to Age.



On an average fifty percent of the fishermen belong to the middle age group, 36-50. Twenty percent belongs to 25 -35 and 21 percent to 50-60 age groups. Below 25 age group accounts only 4 percent. There are slight variations in age-distribution among the different study areas.

(ii) Marital Status

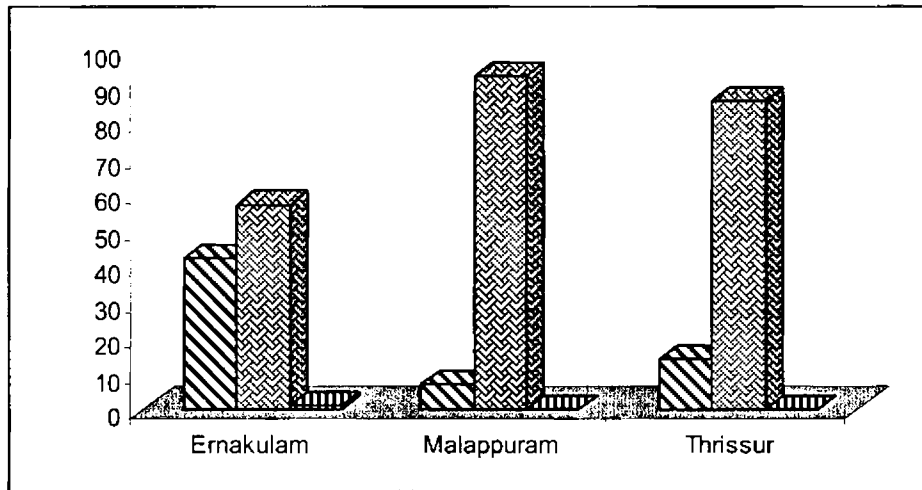
Table 4.2 and chart 4.2. present information regarding the marital status of respondents in the three districts.

Table. 4. 2.
Marital Status

Marital status	Ernakulam	Malappuram	Thrissur	Total	
	Percent	Percent	Percent	No	Percent
Single	42	7	14	63	21.00
Married	57	93	86	236	78.67
Separated	1	0	0	1	0.33
Grand Total	100	100	100	300	100.00

Source: Sample Survey

Chart 4. 2. Marital Status



In Malappuram, 93 percent of the respondents are married. It is 86 in Thrissur and 57 in Ernakulam. On an average 78.67 percent are married.

(iii) Size of Family.

Table 4.3. and chart 4.3 highlight the family size of the respondents. There are wide variations in the number of members in fishermen families in different study areas. Around fifty percent of the families have four to five and 44 percent of the families have six or more members. The Malappuram District has comparatively large families and Ernakulam, small families. In Malappuram seventy nine percent of the families have six or more members. In Thrissur thirty nine percent of the families have less than four members. In Ernakulam majority of the families (79 percent) have four to five members.

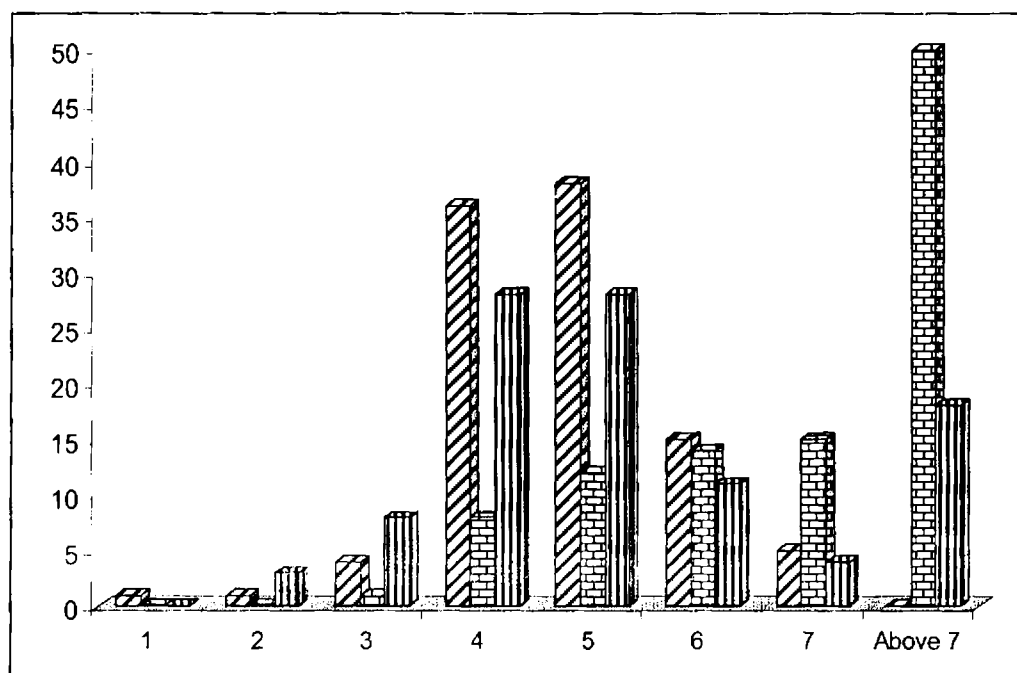
Table.4.3.

Size of Family

Family size	Ernakulam	Malappuram	Thrissur	Total	Total
	Percent	Percent	Percent	No	Percent
1	1	0	0	1	0.33
2	1	0	3	4	1.33
3	4	1	8	13	4.33
4	36	8	28	72	24.00
5	38	12	28	78	26.00
6	15	14	11	40	13.33
7	5	15	4	24	8.00
Above 7	0	50	18	68	22.67
Grand Total	100	100	100	300	100.00

Source: sample survey

Chart 4.3. Size of Family



In some cases of the seven or more member category the number of members goes even up to 22.

(iv). Educational Background.

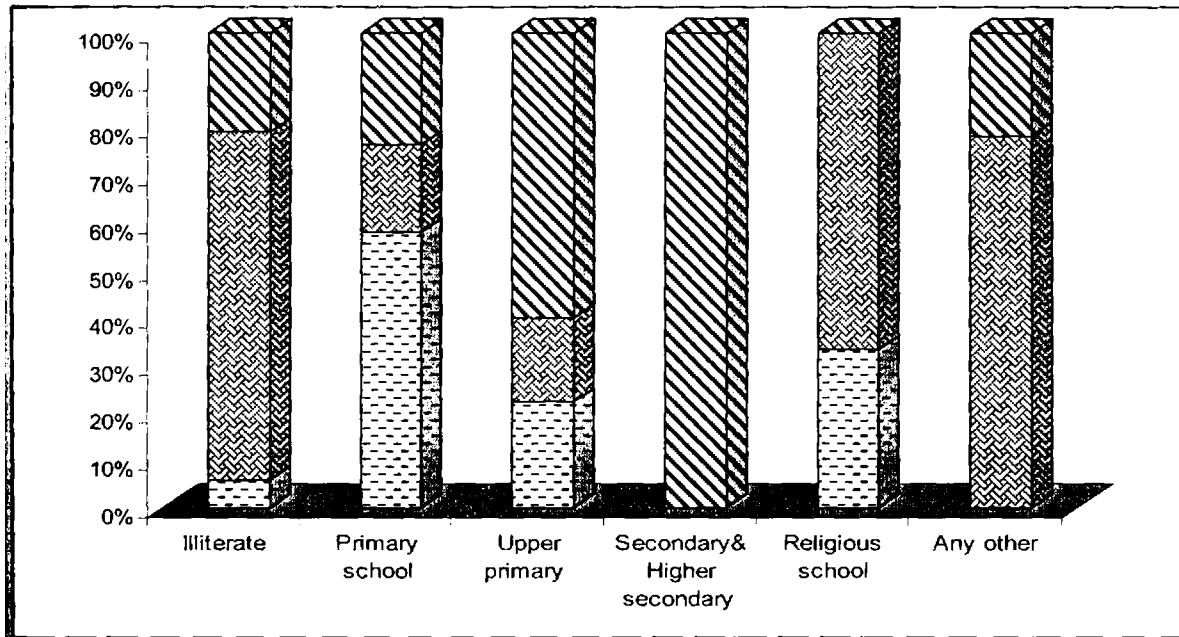
Table 4.4. Explains the educational status of fisher folk in the study area.

Table 4.4.
Educational Status

Educational status	Ernakulam	Malappuram	Thrissur	Total	
	Percent	Percent	Percent	No	Percent
Illiterate	5	63	18	86	28.67
Primary school	66	21	27	114	38.00
Upper primary	10	8	27	45	15.00
Secondary & Higher secondary	0	0	28	51	17.00
Religious school	1	2	0	3	01.00
Any other	0	18	5	1	0.33
Grand Total	100	100	100	300	100.00

Source: Sample Survey

Chart 4.4. Educational Status



From Table 4.4. and chart 4.4, it is evident that 28.67 percent of the respondents are illiterate, and most of them belong to Malappuram district. Out of the 100 respondents in Malappuram, 63 members are illiterates, compared to 18 in Thrissur and 5 in Ernakulam. Fishermen with higher education are almost negligible among the respondents.

4.2. Type of Ownership of Crafts.

Table 4.5. and chart 4.5 give information regarding the type of ownership of crafts in the study area.

Table. 4. 5.

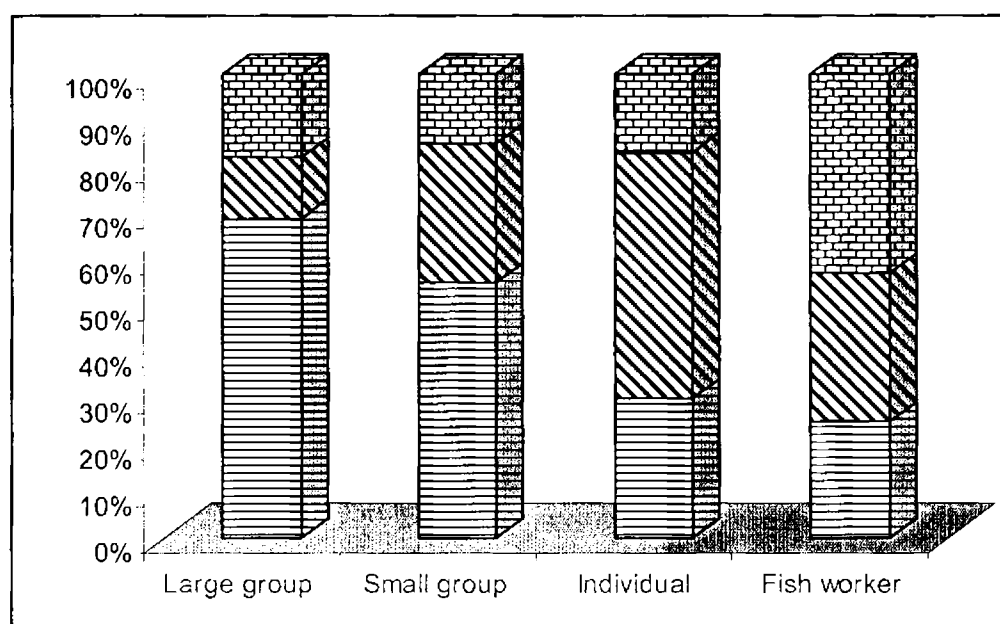
Type of Ownership

Type of Ownership	Thrissur		Ernakulam		Malappuram		Total	
	No	Percent	No	Percent	No	Percent	No	Percent
Large group	27	69	5	13	7	18	39	13
Small group	11	55	6	30	3	15	20	07
Individual	11	30	19	53	6	17	36	12
Fish worker	51	25	65	32	89	43	205	68
Grand Total	100	100	100	100	100	100	300	100

Source: Survey data

$\chi^2 = 12.279^{ns}$

Chart 4. 5. Type of Ownership



Sixty-eight percent of the respondents have no ownership. Thirteen percent have large group ownership and 7 percent have small group ownership. Twelve percent of the respondents have individual ownership of the crafts. Group ownership is the highest in Thrissur district. It is 69 percent in Thrissur district while it is 18 percent in Malappuram. Only thirteen percent of the respondents have group ownership in Ernakulam district. Individual ownership of crafts is found to be the highest in Ernakulam district (they own small two men 'vanchi' which is also used for inland fishing in the 'chemmen kettu'; it is 55 percent in Ernakulam and 30 percent in Thrissur. Respondents with no ownership are the maximum in Malappuram, followed by Ernakulam and Thrissur.

Chi-square Test is applied to see whether there is any association between type of ownership and the district to which they belong. The computed value of Chi-square is less than the table value (12.6) at 6 degrees of freedom and at 5 Percent level of significance. This indicates that there is no association between the district and type of ownership. Table 4.5 and chart 4.5 show that individual owners and fish workers are more common and group ownership very is rare.

4.2. Ownership of Craft

Table 4.6. and chart 4.6 give information regarding fishing assets possessed by fisher folk without any assistance from government agencies.

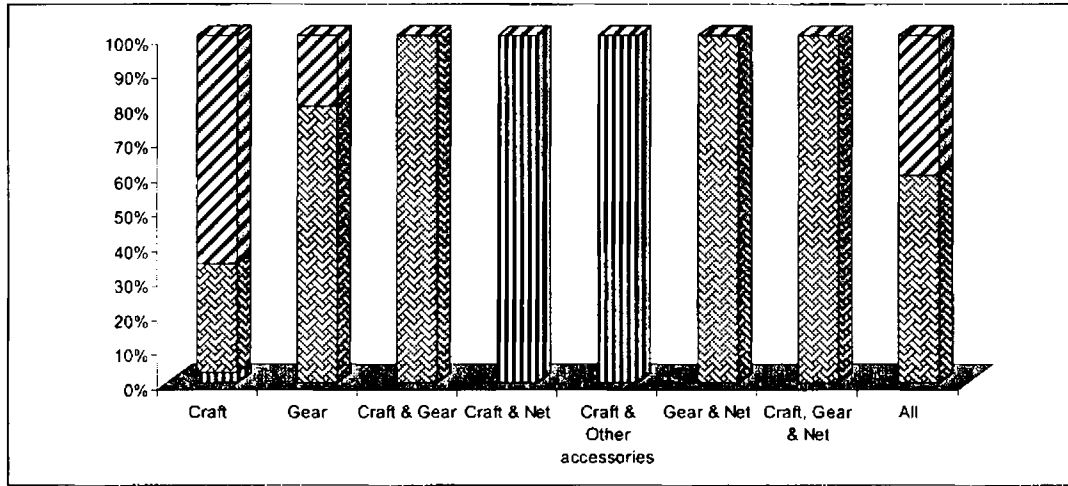
Table .4. 6.

Ownership of Fishing Accessories before Assistance from Matsyafed

Items	Ernakulam Percent	Malappuram Percent	Thrissur Percent	Grand Total	Percent
Craft	1	11	23	35	57
Gear	0	12	3	15	24
Craft & Gear	0	1	0	1	2
Craft & Net	2	0	0	2	3
Craft & Other accessories	1	0	0	1	2
Gear & Net	0	1	0	1	2
Craft, Gear & Net	0	1	0	1	2
All	0	3	2	5	8
Grand Total	3	29	28	61	100

Source: sample survey

Chart 4. 6. Ownership of Fishing Accessories before Assistance from Matsyafed



Eleven of the respondents belonging to Malappuram and 23 in Thrissur district owned crafts, and they have not received any assistance from government agencies like Matsyafed. From Ernakulam district there is no respondent belonging to this category. There are 12 of the respondents in Malappuram, and 3 in Thrissur have ownership of gears. Two respondents in Ernakulam have craft and net and one has craft and other accessories.

4.3. Ownership of Assets with Assistance from Matsyafed

Table 4.7.and chart 4.7 furnish information of fishing assets possessed by the respondents with assistance from Matsyafed.

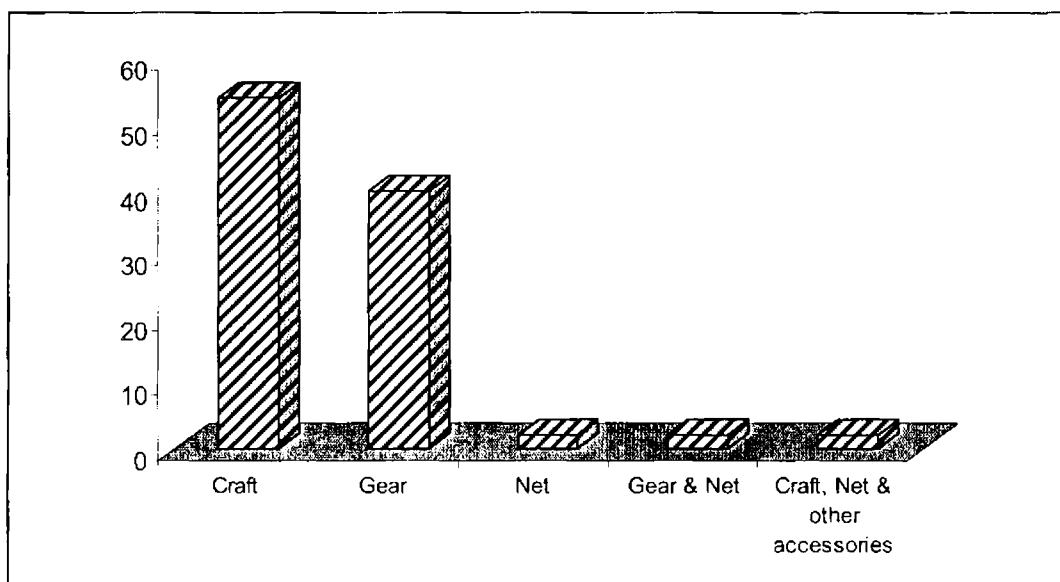
Table .4. 7.

Ownership of Fishing Assets with Assistance

Items	Ernakulam	Malappuram	Thrissur	Grand Total
Craft	0	1	25	26 (54.2%)
Gear	0	19	0	19 (39.6%)
Net	0	0	1	1 (2.1%)
Gear & Net	0	1	0	1 (2.1%)
Craft, Net & other accessories	1	0	0	1 (2.1%)
Grand Total	1 (2.1%)	21 (43.8%)	26 (54.2%)	48

Source: sample survey

Chart .4. 7. Ownership of Fishing Assets with Assistance



Twenty-five respondents (54.2 percent) in Thrissur district have collectively secured assistance from Matsyafed to procure crafts. It is in

the nature of group ownership. One respondent in Malappuram also procured craft with the assistance from Matsyafed, and no respondent in Ernakulam district received assistance for this. Nineteen (39.6Percent) respondents in Malappuram procured gear with the assistance from Matsyafed. One respondent in Ernakulam secured craft, net and other accessories with government assistance.

4.4. Possession of Assets Other than Fishing.

Table 4.8. and chart 4.8 give details regarding possession of assets other than fishing by the respondent fisher folk.

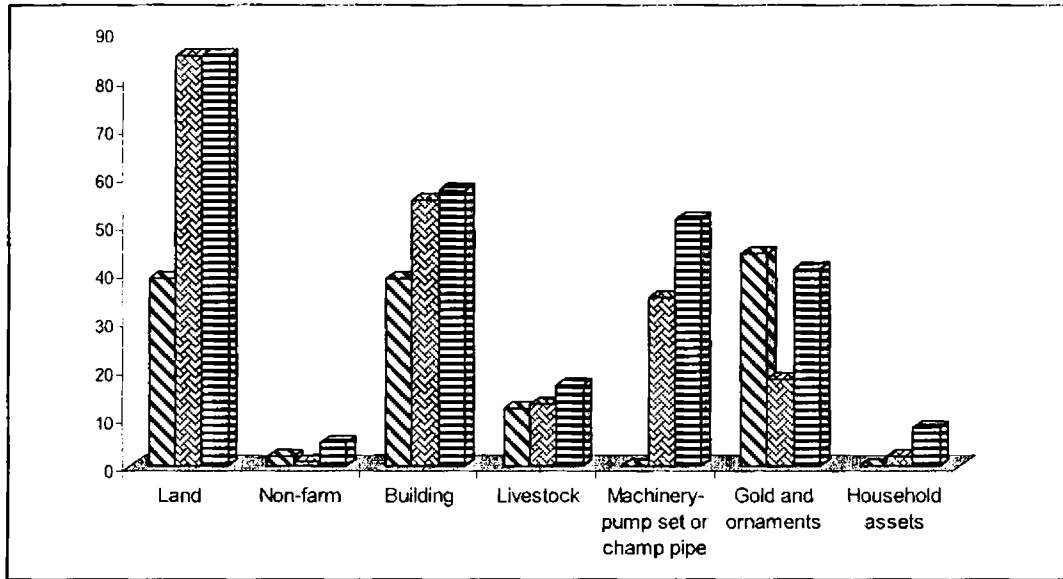
Table 4. 8.

Possession of Assets Other than Fishing Assets

Assets	Ernakulam Percent	Malappuram Percent	Thrissur Percent
Land	39	85	85
Non-farm	2	1	5
Building	39	55	57
Livestock	12	13	17
Machinery-pump set or champ pipe	0	35	51
Gold and ornaments	44	18	41
Household assets	0	2	8

Source: sample survey

Chart 4. 8. Possession of Assets Other than Fishing Assets



Eighty five percent of the respondents in Malappuram and Thrissur have their own land (small holdings). Fifty five percent of the respondents have own houses in Malappuram district, it is 57 in Thrissur and 39 in Ernakulam districts. Thirty five percent of respondents in Malappuram and 51 in Thrissur districts own pump sets or champu pipes. But no respondent in Ernakulam have such assets; and depend on public water supply for their day to day requirements. Forty four percent of the respondents from Ernakulam, 41 in Thrissur and 28 in Malappuram districts have gold ornaments. For the marriage they give some 50 to 100 sovereigns to the bride. But that will be in their possession only for a short period; because they either sell or pledge the same when they are in need of money.

4.4. Possession of Modern Consumer Durables.

Table 4.9. and chart 4.9 show the variations in ownership of consumer durables and vehicles among respondent fishermen in the study area.

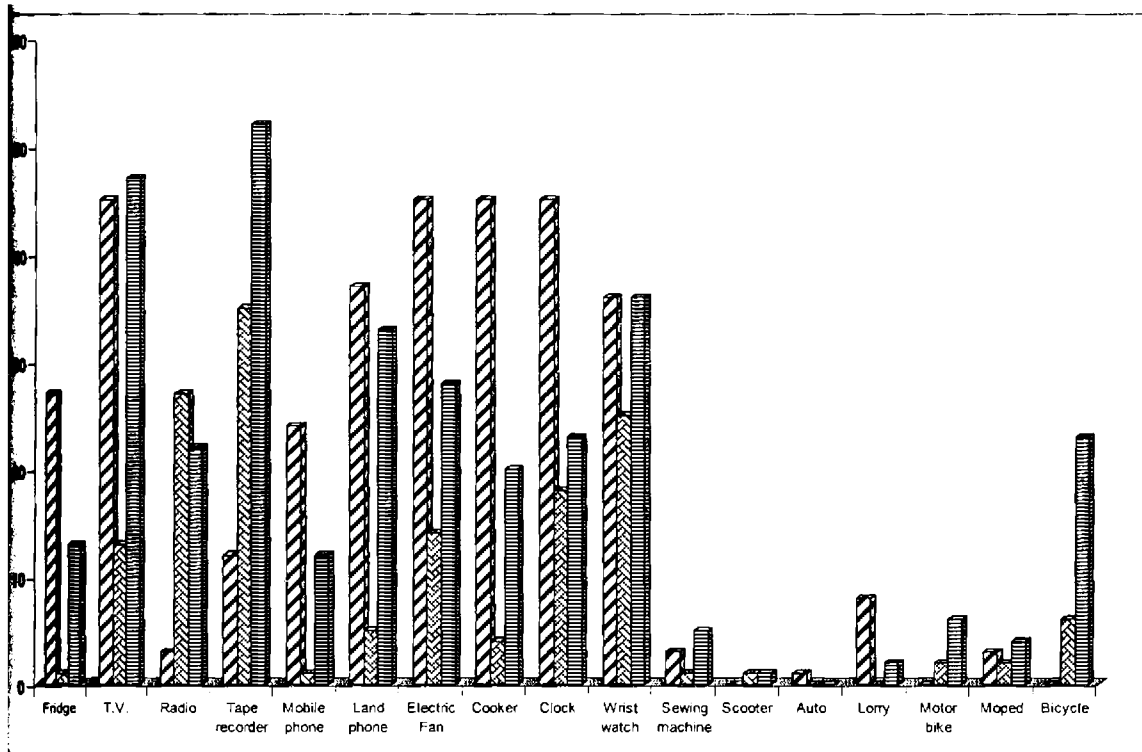
Table 4.9.

Possession of Modern Durables

Modern durables	Ernakulam percent	Malappuram Percent	Thrissur percent	Total percent
Fridge	27	1	13	41 (13.33)
T.V.	45	13	47	105(35.00)
Radio	3	27	22	52(17.33)
Tape recorder	12	35	52	99(33.00)
Mobile phone	24	1	12	37(12.33)
Land phone	37	5	33	75(25.00)
Electric Fan	45	14	28	87(29.00)
Cooker	45	4	20	69(23.00)
Clock	45	18	23	86(28.67)
Wrist watch	36	25	36	97(32.33)
Sewing machine	3	1	5	9(3.00)
Scooter	0	1	1	2(0.67)
Auto	1	0	0	1(0.33)
Lorry	8	0	2	10(3.33)
Motor bike	0	2	6	8(2.67)
Moped	3	2	4	9(3.00)
Bicycle	0	6	23	29(9.67)

Source: Survey data

Chart 4.9. Possession of Modern Durables



In all the three districts the most common consumer durable is television; tape recorder has the second and wrist watches the third position. Fans and clocks have only lower priority. Telephone is more common than radio. Fridges and vehicles are the least possessed durables. Bicycle is possessed by 9.67 percent of the respondents.

Of the hundred and five respondents 35 percent possessed TV. The number of respondents having TV is the highest in Thrissur district and the lowest in Malappuram. 33 percent respondents have tape recorders. It is 52 percent in Thrissur and 12 in Ernakulam district. Ninety seven respondents have wrist watches and another 86 have

clocks. As compared to the other two districts, Malappuram is very poor with respect to possession of consumer durables. Ernakulam district is far better when compared to the other two districts. Forty five respondents have TV, Fan, pressure cooker and clocks in Ernakulam. 47 percent respondents have TV in Thrissur district. Twenty-eight percent of the respondents in Thrissur have fan, pressure cooker and clock. 23 percent respondents have bicycles in Thrissur and six in Malappuram district.

4.5. Possession of Other Assets.

Table 4.10 and chart 4.10 provide data regarding possession of heating and lighting appliances.

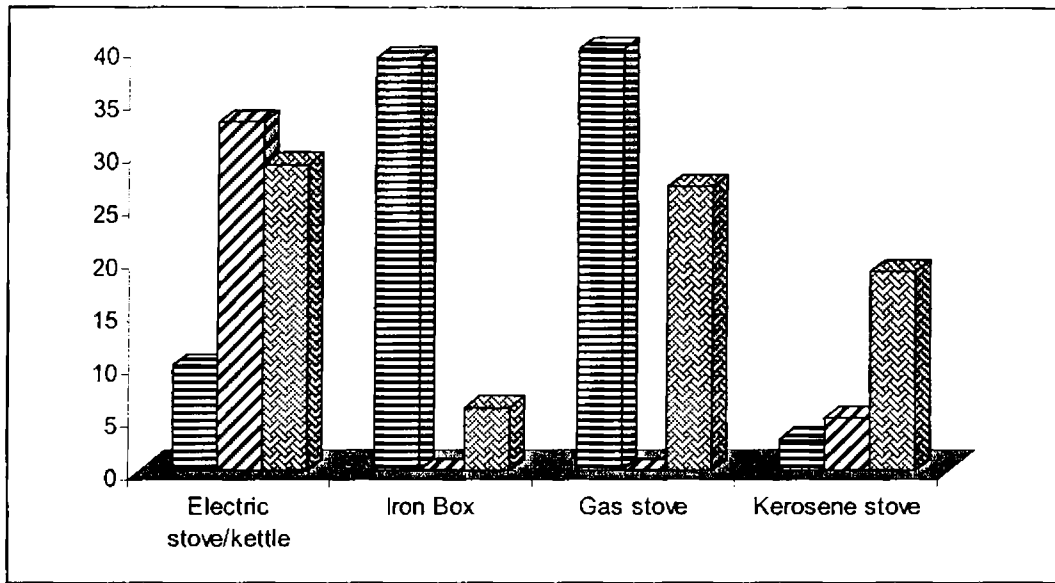
Table. 4. 10.

Lighting and Heating Appliances

Appliances	Ernakulam	Malappuram	Thrissur
	Percent	Percent	Percent
Electric stove/kettle	10	33	29
Iron Box	39	0	6
Gas stove	40	0	27
Kerosene stove	3	5	19

Source: Survey data

Chart 4. 10. Lighting and Heating Appliances



Heating and lighting appliances are more common among respondent fishermen in Ernakulam when compared to those in Thrissur and Malappuram districts. In Ernakulam, ten percent of the respondents have electric stove or kettle, 39 percent have iron boxes and 40 percent have gas stoves. No respondent in Malappuram district own iron boxes or gas stoves. Twenty-nine percent of respondents have electric stoves or kettles, 27 percent gas stoves and 19 percent kerosene stoves in Thrissur district.

Chapter 5

Implication Of Intervention Of Government Agencies In Saving, Borrowings And Indebtedness

CHAPTER 5

IMPLICATION OF INTERVENTION OF GOVERNMENT

AGENCIES IN SAVINGS, BORROWINGS AND

INDEBTEDNESS

The previous chapter gives an account of demographic characteristic of the study area. It also analyses the extent of intervention of government or other agencies in the creation of fishing and other assets. In this chapter we are try to understand the role of government and that of government agencies, particularly Matsyafed, in earning a sustainable yield, their saving habits , expenditure pattern and also the indebtedness the fisher men in the study area..

5.1. Nature of Fishing.

Table 5.1. provides information with respect to seasonal variations in fish catch in the different study districts.

Table. 5.1.

ANOVA for Seasonal Fish per Day

Source	Degrees of freedom	Sum of Squares	Mean Square	F
Between district	2	9378307.32	4689153.66	17.99**
Error	291	75853529.41	260665.05	
Total	293	85231836.74		

Source: survey data , Ns-not significant at 5 Percent level

Table 5.1. shows that F-value is not significant at 5 Percent level of significance indicating that there is no significant difference in seasonal and daily fish catch among the study areas. There is no significant difference in the seasonal fish catch in Thrissur and Ernakulam districts. Mean seasonal fish catch in Malappuram district is significantly higher compared to the other two districts of study.

Table 5.2. gives information regarding the average catch made per day in the three different districts.

Table. 5.2.

Average Seasonal Fish Catch Per Day

District	Season	
	Mean	Std. Error
Thrissur	362.50 ^a	12.79
Ernakulam	276.47 ^a	8.38
Malappuram	729.17 ^b	119.33
Total	422.45	31.46

Source: Survey data

There is no significant difference in the seasonal and daily fish catch in Ernakulam and Thrissur districts. But Malappuram shows a different position. Average fish catch made during seasons is

significantly higher in Malappuram; but the benefit is not enjoyed by the respondent fishermen since they are mere fish workers. The owner of the craft enjoys the real benefit in the form of rent.

Note: Means with same letter as super script are homogeneous

5.2. Off Season Fish Catch

Table 5.3. Provides information relating to average off-seasonal fish catch of respondents in the three study districts.

Table. 5.3.

Average Off-Season Fish Catch per Day.

District	Off season	
	Mean	Std. Error
Thrissur	110.00 ^a	4.26
Ernakulam	114.29 ^a	5.46
Malappuram	137.50 ^b	5.48
Total	120.00	3.03

Source: Survey data

There is no significant difference between the average off-season fish catch of the respondents in the districts of Thrissur and Ernakulam. Respondent fishermen in Malappuram district have the

largest average fish catch during off-seasons. It is because the respondents are forced to go to the sea greater number of times for fishing by the craft owners. This type of compulsion is not acute in the other two districts; and they go for fishing only according to the availability of fish and weather conditions.

Off season catch among respondents of different districts are compared using ANOVA, and the result is presented in table 5.4.

Table 5.4.
ANOVA for Off Season Catch per Day

Source	Degrees of freedom	Sum of Squares	Mean Square	F
Between district	2	33621.4	16810.7	9.13**
Within Error	213	392378.6	1842.2	
Total	215	426000.0		

Source: Survey data **- Significant at 5 Percent level

There is significant difference in off-seasonal catch of respondents. Malppuram has high catch during off-season than the other two districts; because they are compelled to go for fishing more number of times.

5.3. Nature of Sharing of Catch.

Table 5.5. gives information regarding the nature of sharing of catch between workers and owners.

Table 5.5.

Nature of Sharing of Catch

Items	Ernakulam	Malappuram	Thrissur
Owner of craft/gear	35-65	35-65	35-65
Rent	35	35	35-65
Crew members' contingent expenses	5	5	5
Auctioneer/Matsyafed	5-10	5	5
Thrift	0	0	5
Church/Temple/Places of Worship	0	1-5	1

Source: Sample survey

After giving auctioneer's share and meeting contingent and operating expenses, including fuel and donations to temple or church, the owners and workers share the balance amount among themselves in the ratio of 65 - 35.

The auctioneer gets 5 to 10 percent of the catch in all the districts. The auctioneers are called "Tharakans". The share of the owner is commonly 35 percent and that goes up to 65 percent when the members are owners. In Thrissur district they set aside five percent of the catch for repair/ maintenance/ renewal of the craft, or to have a cushion-in for off seasons among group owners. In Malappuram district one to five percent, and in Thrissur one percent is donated to temples, churches or other places of worship. No such offerings are seen in Ernakulam district.

5.5. Sale of the Catch

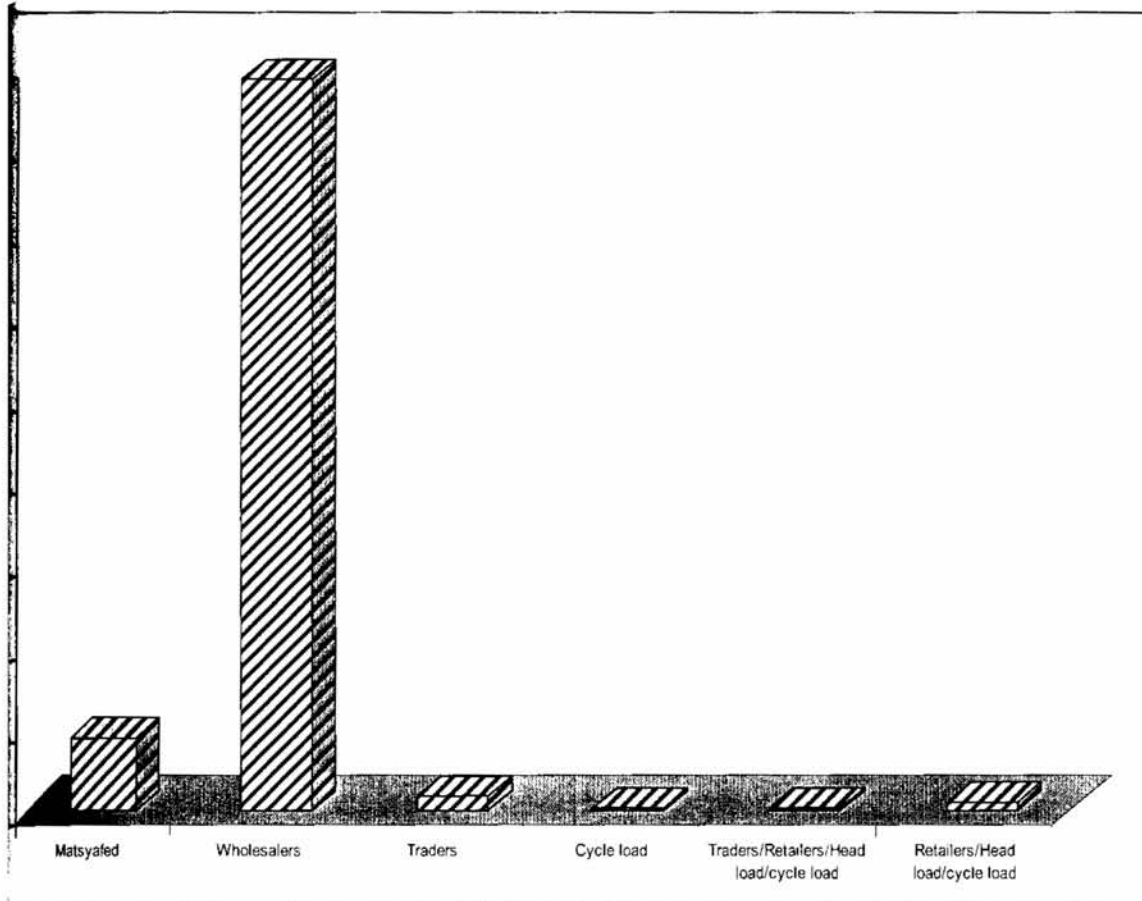
Table 5.6 and chart 5.1 give information regarding the agencies involved in buying the catch.

Table. 5. 6.
Disposal of Catch

Type of disposal	Ernakulam Percent	Malappuram Percent	Thrissur Percent	Grand total	
				No	Percent
Matsyafed	0	0	26	26	8.7
Wholesalers	99	98	67	264	88.0
Traders	1	2	2	5	1.7
Cycle load	0	0	1	1	0.3
Traders/Retailers/Head load/cycle load	0	0	1	1	0.3
Retailers/Head load/cycle load	0	0	3	3	1.0
Grand Total	100	100	100	300	100

Source: sample survey

Graph 5.1 Disposal of Catch



Eighty eight percent of the respondents sell their catch to the wholesalers. In Thrissur district 8.7 percent of the respondents sell their catch to Matsyafed. In all other districts, the respondents sell their catch to vendors, private auctioneers / Tharakans. A small percentage of the respondents in Thrissur sell their catch to small vendors, head load or cycle load workers. It is the two men crafts, whose catch falls within the range of Rs. 50/- to Rs. 200/-, is sold to small vendors/head load/cycle load workers. Their share is 3.3 percent.

5.6. Sources of Income

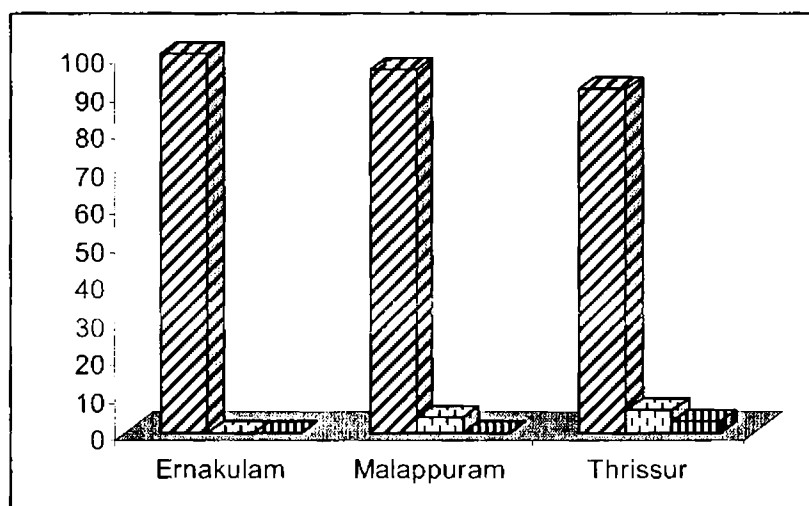
Table 5.7 and chart 5.2 reveal the sources of income of respondents and their dependency on fishery for their livelihood.

Table 5.7
Source of Income

Type	Ernakulam	Malappuram	Thrissur	Total	
	Percent	Percent	Percent	No	Percent
Sole source	100	96	91	287	96
Major Source	0	4	6	10	3
Minor Source	0	0	3	3	1
Grand Total	100	100	100	300	100

Source: survey data

Chart . 5.2 Source of Income



In the three districts under study, the sole source of income of 96 percent of the respondent fishermen is from fishing. In Ernakulam cent percent of the respondents depend on fishery for their income. This is 96 percent in Malappuram and 91 percent in Thrissur districts. For the other 4 percent of the respondents in Malappuram fishing is the major source of income. For 6 percent of the respondents in Thrissur, fishing is a major source and for the remaining 3 percent, it is a minor source of income.

5.6. Saving Habits

Table 5.8 and chart 5.3 give information regarding the saving habits of respondents in the three districts of study.

Table 5.8.

Saving Habits.

Response	Thrissur	Ernakulam	Malappuram	Total	
	Percent	Percent	Percent	No	Percent
Save	50	39	62	151	50.33
Not save	50	61	38	149	49.67
Grand Total	100	100	100	300	100

Source: sample survey

Chart 5.3. Saving Habits

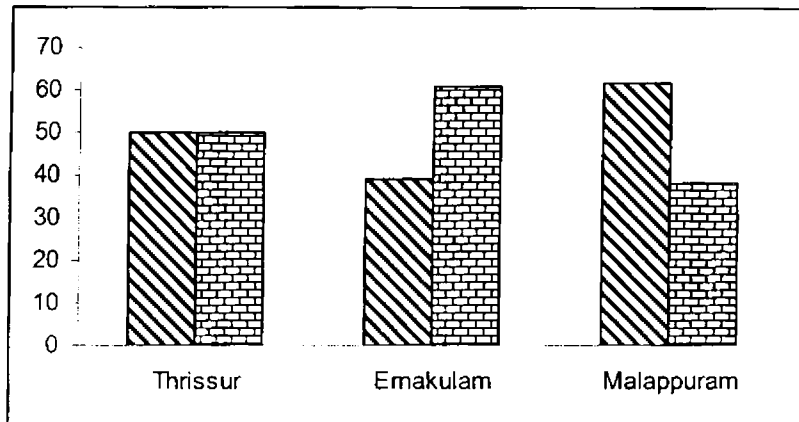


Table 5.8 and chart 5.3 show that on an average 50.33 percent of the respondents have saving mentality. Fifty percent respondents in Thirissur, 62 percent in Malappuram and 39 percent in Ernakulam district have savings.

5.7. Nature of Saving.

Table 5.9. and chart 5.4 give information regarding the nature of period of savings.

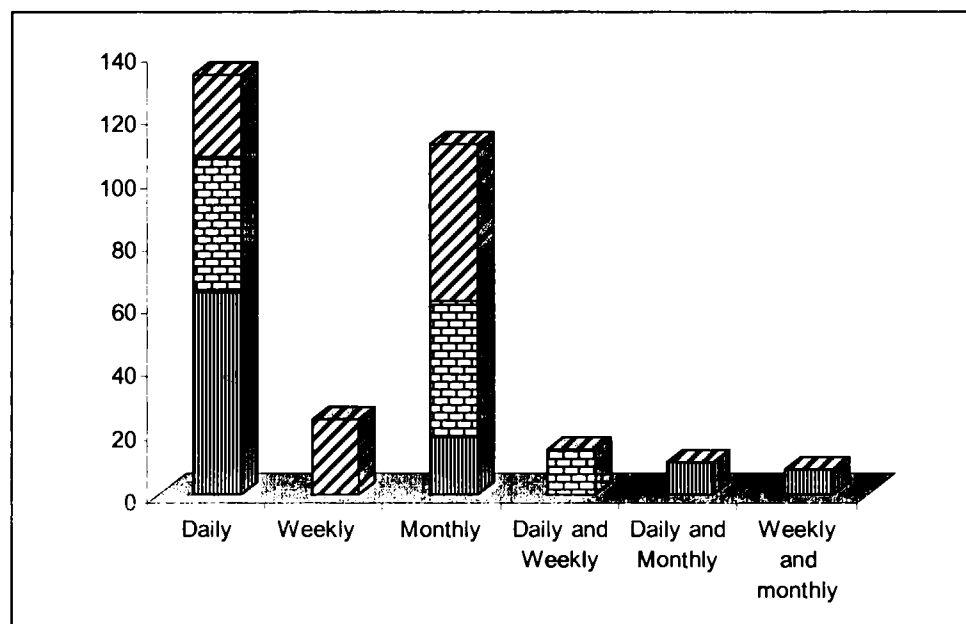
Table. 5.9.

Period of Saving

Response	Thrissur		Ernakulam		Malappuram		Total	
	No	Percent	No	Percent	No	Percent	No	Percent
Daily	32	64	17	43	16	26	65	43
Weekly	0	00	0	00	15	24	15	10
Monthly	9	18	17	43	31	50	57	38
Daily and Weekly	0	00	05	14	0	00	5	03
Daily and Monthly	5	10	0	00	0	00	05	03
Weekly and monthly	4	08	0	00	0	00	04	03
Grand Total	50	100	39	100	62	100	151	100

Source: sample survey

Chart. 5.4.Period of Saving



Sixty four percent of the respondents in Thrissur, 43 in Ernakulam and 25 in Malappuram districts have daily savings. 18 percent of the respondents in Thrissur, 43 percent in Ernakulam and 50 percent in Malappuram have monthly savings. In Malappuram, 24 percent of the respondents have weekly savings.

5.8. Purpose of Saving.

Table 5.10 and chart 5.5 provide information regarding the purpose for which the respondents make use of their savings

Table. 5.10.
Purpose of Saving.

Response	Thrissur		Ernakulam		Malappuram		Total	
	No	Percent	No	Percent	No	Percent	No	Percent
For Purchasing	23	46	11	29	31	50	65	43
Education of children	05	09	00	00	00	00	05	03
Marriage of daughter	09	18	23	57	24	38	56	37
For education and purchase	00	00	05	14	00	00	05	03
For Marriage of daughter and purchase	09	18	00	00	07	12	16	11
For education and marriage of daughter	04	09	00	00	00	00	04	03
Grand Total	50	100	39	100	62	100	151	100

Source: sample survey

Chart . 5.5. Purpose of Saving.

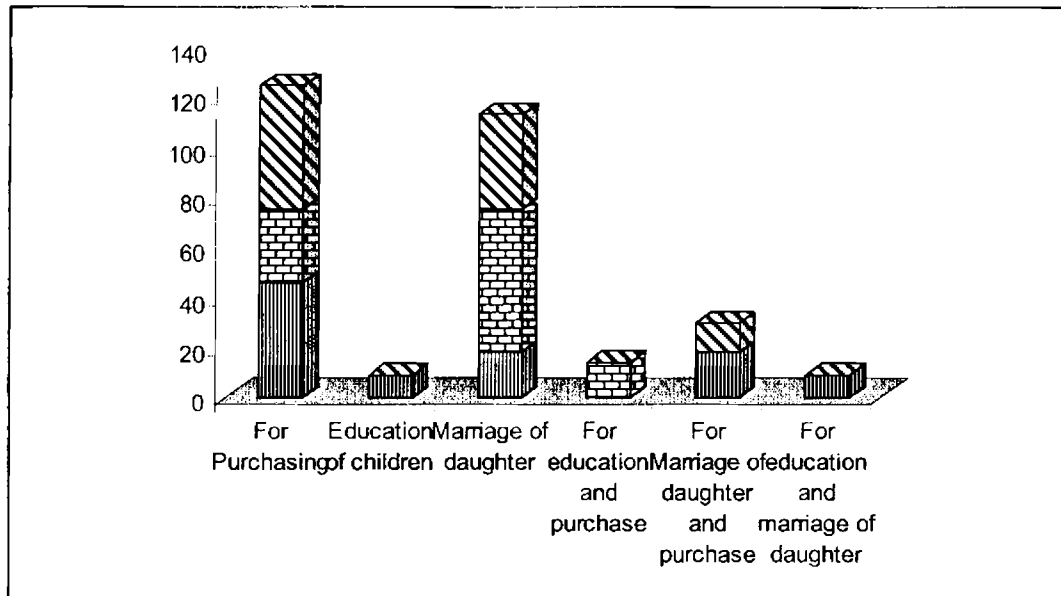


Table 5.10 and chart 5.5 show that 46 percent of respondents in Thrissur, 29 percent in Ernakulam and 50 percent in Malappuram districts save for purchasing consumer goods. Forty three percent of the respondents make savings to purchase household items of routine nature. About 37 percent make savings for the marriage of their daughters. Only 3 percent of the respondents save for the education of their children.

5.9. Place of Saving

Table 5.11 and chart 5.6 give information regarding method of savings of respondents.

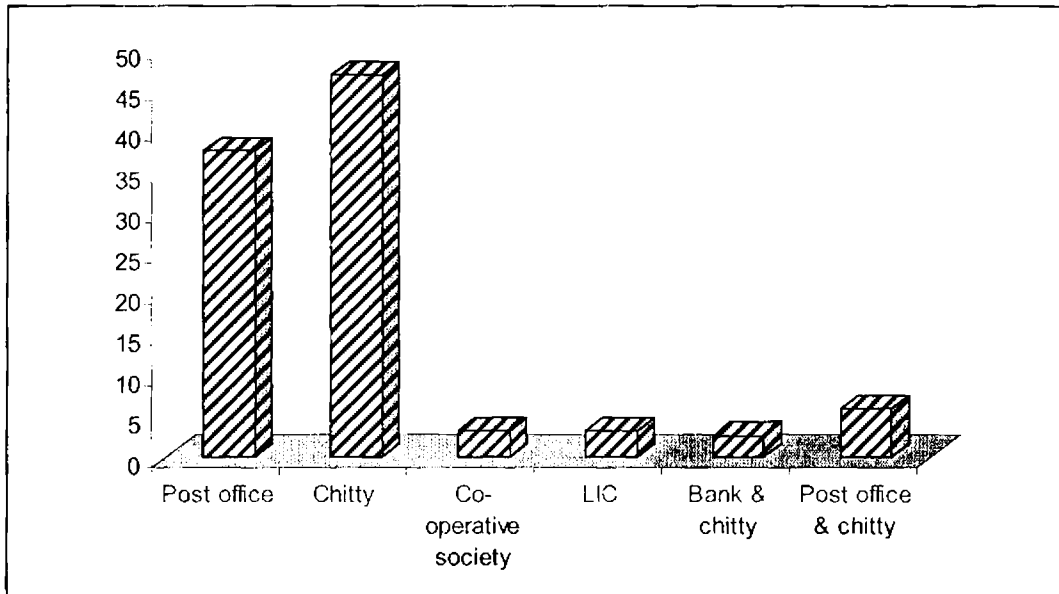
Table. 5.11.

Method of Saving

Response	Thrissur		Ernakulam		Malappuram		Total	
	No	Percent	No	Percent	No	Percent	No	Percent
Post office	09	18	17	43	31	50	57	37.75
Chitty	23	45	17	43	31	50	71	47.02
Co-operative society	00	0.00	5	14	0	0.00	5	3.31
LIC	05	9	0	0	0	0	5	3.31
Bank & chitty	04	9	0	0	0	0	4	2.65
Post office & chitty	09	18	0	0	0	0	9	5.96
Grand Total	50	100	39	100	62	100	151	100

Source: Survey data

Chart 5.6. Method of Saving



More than 47 percent of the respondents make their savings through chitties; 37.75 percent through post office savings. 50 percent of the respondents from Malappuram district save through post office or chitties. In Ernakulam, 14 percent save their income through cooperative societies. 2 to 3 percent save through LIC and/or banks.

5.10. Expenditure Pattern.

Table 5.12. and chart 5.7 explain the expenditure pattern of the respondents in the three districts.

Table 5.12.
Expenditure Pattern

Village	Thrissur	Ernakulam	Malappuram	Overall Average	F-value
Food per day	179.29	149.41	252.08	186.60	25.0**
Clothes per month	47.62	14.71	0.00	25.00	2.9 ^{ns}
Education per year	402.40	248.22	383.33	345.40	2.1 ^{ns}
Festivals per month	47.60.	0.00	83.33	40.00	5.2**
Donations to temple, church, Mosque per month	117.62	1.47	437.50	154.90	81.2**
Medicine per day	17.29	28.94	106.25	42.60	16.3**
Smoking per day	7.55	11.94	4.17	8.23	38.4**
Drinking per day	35.27	31.76	14.12	29.07	16.5**

Source: survey data, Not-significant at 5 Percent level; * significant at 5 Percent level; ** significant at 1 Percent level

Chart 5.7. Expenditure Pattern

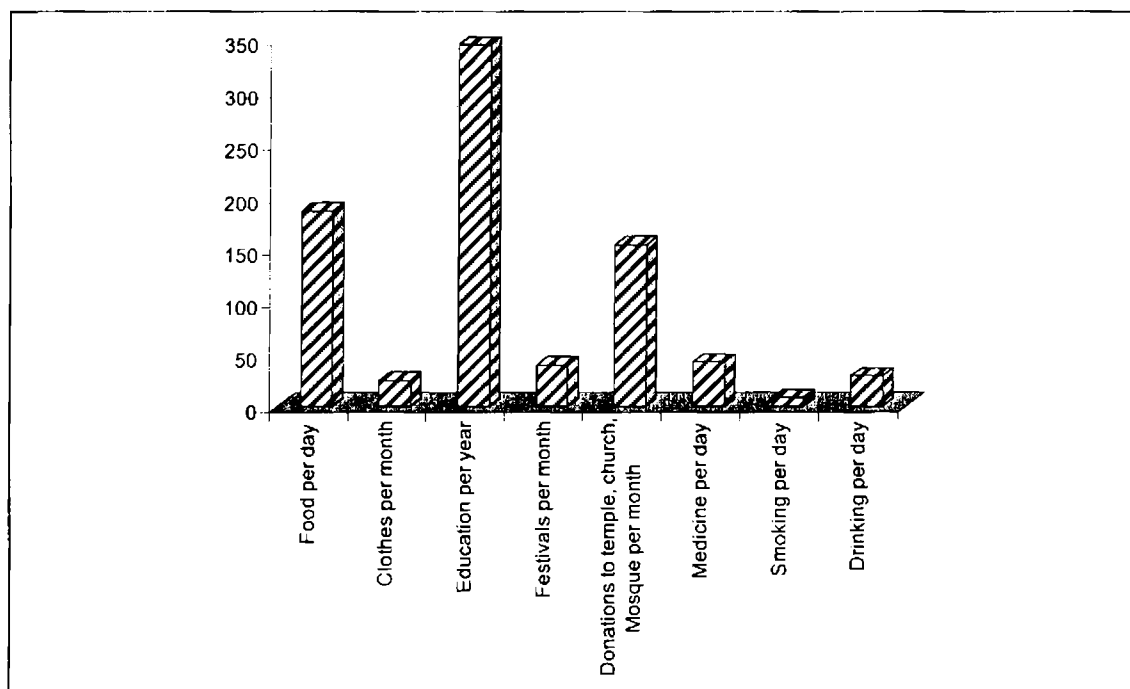


Table 5. 12.and chart 5.7 show that the highest expenditure item of the respondents in all the districts is for food. Other important items include donations, medicines and drinking. Education and clothing belong to the least important item of expenditure. Clothing expenditure is less since relatives from gulf countries gift dress materials; and hence there is no need to make any purchase on their own. Since education is given free by the government, the expenditure incurred is for tuition classes and conveyance.

Significant F value at one percent level shows that expenditure of those items in different districts is significantly different in the case of food items, spending on festivals, donations, medicines and for

drinking. For other items like education and clothing, there is no significant difference among respondents.

Table 5.13 gives information regarding item wise expenditure.

Table.5.13.
ANOVA for Expenditure.

Items	Source	d. f.	Sum of Squares	Mean Square	F
Food	Between districts	2	410889671.8	205444835.9	25.0**
	Error	297	2439889128.2	8215114.9	
	Total	299	2850778800.0		
Clothes	Between districts	2	120273.1	60136.6	2.9 ^{ns}
	Error	297	6067226.9	20428.4	
	Total	299	6187500.0		
Education	Between districts	2	1475683.9	737842.0	2.1 ^{ns}
	Error	297	106192168.1	357549.4	
	Total	299	107667852.0		
Festivals	Between districts	2	305714.3	152857.1	5.2**
	Error	297	8694285.7	29273.7	
	Total	299	9000000.0		
Donations	Between districts	2	8326381.9	4163190.9	81.2**
	Error	297	15231563.1	51284.7	
	Total	299	23557947.0		
Medicine	Between districts	2	352320424.8	176160212.4	15.3**
	Error	297	3417311575.2	11506099.6	
	Total	299	3769632000.0		
Smoking	Between districts	2	2387041.8	1193520.9	38.4**
	Error	297	9220825.2	31046.6	
	Total	299	11607867.0		
Drinking	Between districts	2	18944915.4	9472457.7	16.5**
	Error	297	170928703.4	575517.5	
	Total	299	189873618.8		

Source: survey data not-significant at 5 Percent level; * significant at 5 Percent level; ** significant at 1 Percent level.

There is significant difference among the districts with respect to expenditures on food, festivals, donations, medicine, smoking and drinking. There is no significant difference in spending habits of the respondent fisher folks on clothing and education.

5.11. Borrowings and Indebtedness.

Table 5.14. and chart 5. 8 give information regarding the number of respondents who borrowed money in the last year for various purposes.

Table. 5.14.
Money Borrowed

Response	Thrissur	Ernakulam	Malappuram	Total	
	Percent	Percent	Percent	No	Percent
Borrowed	100	95	93	288	96
Not borrowed	0	5	7	12	4
Grand Total	100	100	100	300	100

Source: Sample survey

Chart. 5.8. Money Borrowed

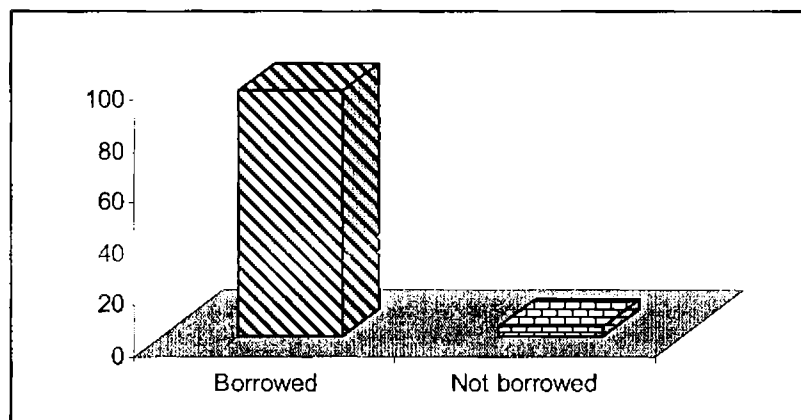


Table 5.14 and Chart 5.8 show that 96 percent of the respondents borrowed money last year to meet their day-to-day expenses. In Thrissur district all the respondents borrowed money, while in Ernakulam it is 95 percent and in Malappuram 93 percent. Only 4 percent of the respondents have no borrowings in the previous year of study.

5.12. Purpose and Amount of Debt.

Table 5.15. and chart 5.9 provide details regarding the purpose for which money was borrowed, and the amount of debt.

Table. 5.15.

Purpose and Amount of Debt.

Purpose	501-5000		5001-50000		50001-5lakh	
	No	Percent	No	Percent	No	Percent
Food	54	19	11	4	0	0
Clothing	22	7	0	0	0	0
Education	38	13	16	5	0	0
Medicine	11	4	22	7	0	0
Craft and gear	6	2	81	28	38	13
Household asset	22	7	22	7	0	0
Marriage of daughter	6	2	33	11	16	5
Land and housing	6	2	108	38	27	9

Source: sample survey

Chart . 5.9. Purpose and Amount of Debt.

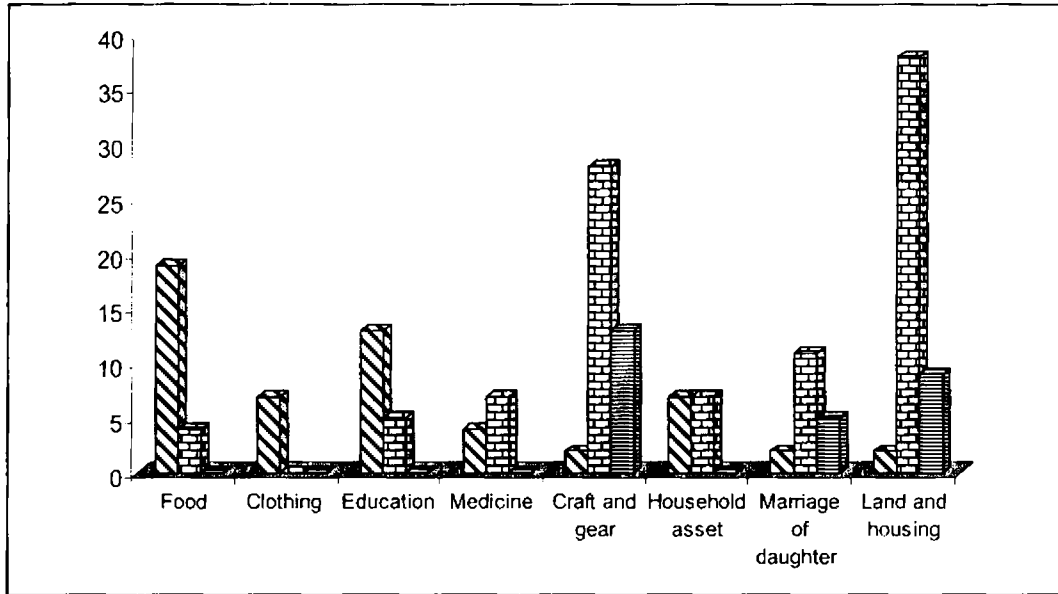


Table 5.15. and chart 5.9 reveal that 19 percent of the respondents borrowed up to Rs. 5000/- to meet food requirements. Another 38 percent borrowed funds to purchase land or to construct house. The amount borrowed ranged between. Rs. 5000- 50000/-. 13 percent respondents borrowed Rs. 50,000 to 5, 00,000 for buying craft and gear, 5 percent respondents for the marriage of their daughters, and 9 percent for purchasing land and building.

5.13. Sources of Debt.

Table 5.16 and chart 5.10 give information regarding the sources of money borrowed to meet the requirements.

Table. 5.16.

Sources of Debt

Source	Thrissur		Ernakulam		Malappuram	
	No	Percent	No	Percent	No	Percent
Money lender	32	32	50	53	8	8
Tharakans	9	9	0	0	17	17
Matsyafed	36	36	26	29	8	8
Societies	54	54	63	70	25	25
Bank	31	31	37	41	50	50
Friends and relative	36	36	16	17	17	17
Total	100		95		93	

Source: Sample survey

Chart. 5.10. Sources of Debt

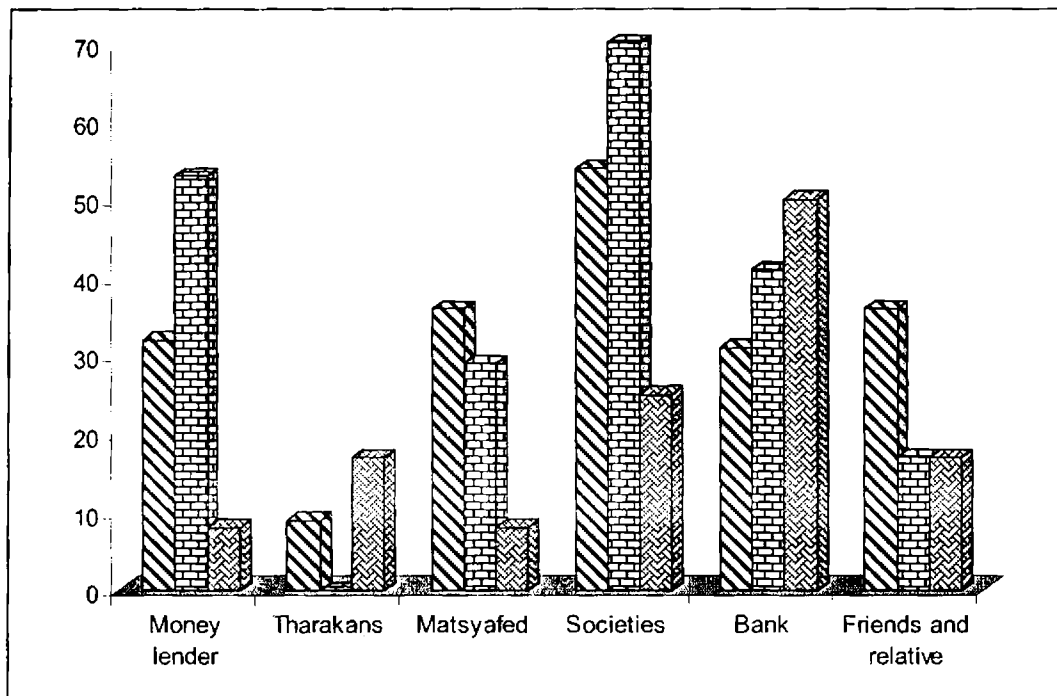


Table 5.16. and chart 5.10 show that in Malappuram district 53 percent of the respondents had taken loans from banks, 25 percent from cooperatives societies and 17 percent from tharakans, friends or relatives. In Ernakulam about 70 percent borrowed money from cooperative societies; 53 percent from moneylenders; 41 percent from banks and 17 percent from friends and relatives. In Thrissur, 54 percent of the respondents are indebted to societies; 36 percent to friends and relatives; 36 percent to Matsyafed and 32 percent to moneylenders.

5.14. Preference of Agency other than Matsyafed.

Table 5.17. and chart 5. 11 depict reasons for preference of an agency other than Matsyafed for their financial requirements.

Table 5.17
Preference of an Agency

Reasons	Ernakulam	Malappuram	Thrissur	Grand total	
	Percent	Percent	Percent	No	Percent
Low rate of Interest	0	3	14	17	6
Easy finance	47	12	44	103	34
Easy terms of repayment	1	6	44	51	17
Accessibility	41	7	36	84	28
Security/bond	1	2	22	25	8
Compulsion from committee members or group leaders	2	2	4	8	3

Source: Sample survey

Chart. 5.11 Preference of an Agency

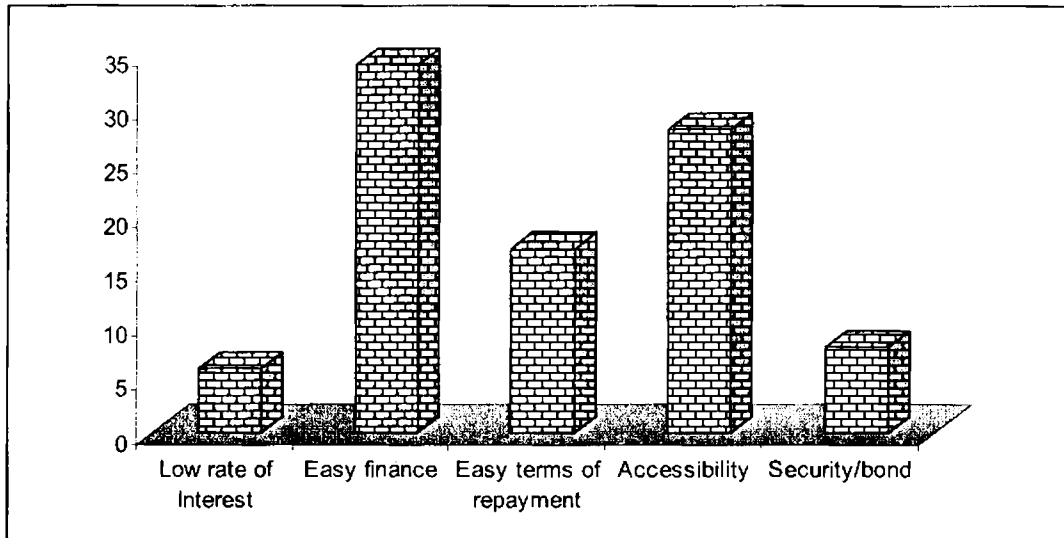


Table 5.17. and chart 5.11 show that around 34 percent of the respondents prefer agencies other than Matsyafed because of easy finance. For 28 percent of the respondent fisher folk, accessibility is the real concern. Seventeen percent preferred other agencies because of the easy terms of repayment. For another 8 percent the rate of interest is a major concern.

5.14. Promptness of Repayment.

Table 5.18. and chart 5.12 explain the reasons for non-payment or undue delay in repayment of debt taken form Matsyafed.

Table 5.18.

Non-payment or Undue Delay in Repayment

Reasons	Ernakulam	Malappuram	Thrissur	Grand total	
				No	Percent
Low catch and value	1	4	20	25	26.6
No compulsion, only persuasion	2	10	31	43	45.7
Debt relief by Government	33	6	32	71	75.5
Matsyafed - no good	2	2	22	26	27.7
Betterment of Officials	0	0	12	12	12.8

Source: Survey data

Chart. 5.12. Non-payment or Undue Delay in Repayment

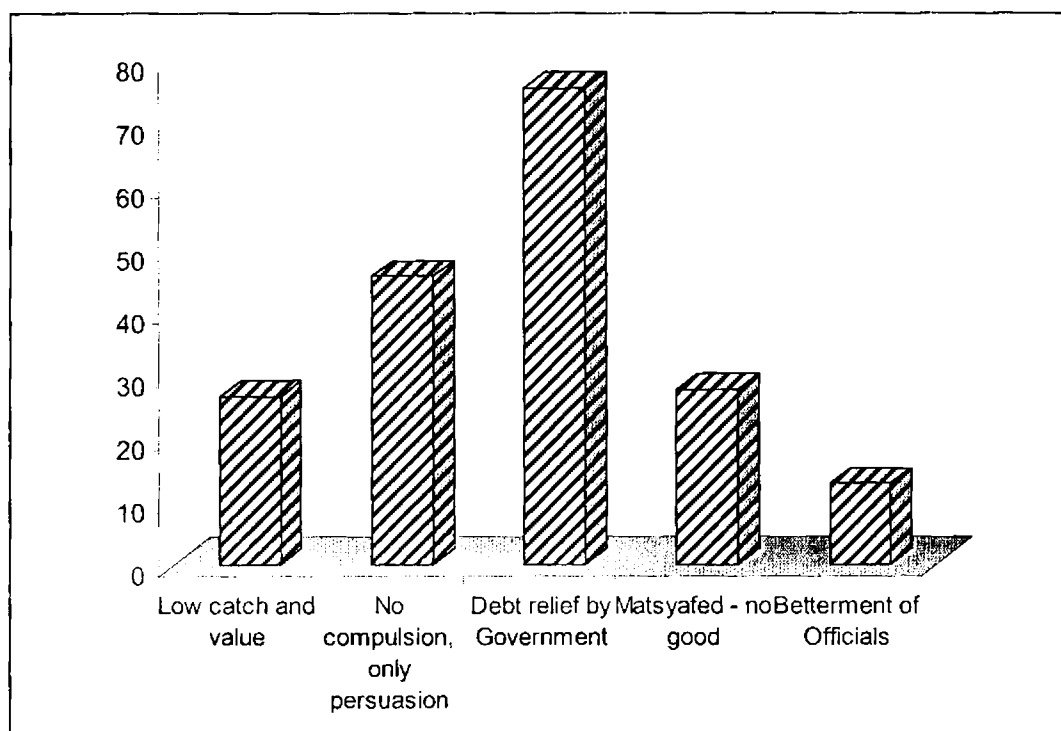


Table 5.18. and chart 5.12 provide the feedback regarding the attitude of the respondents in repaying their debt. The most important reason for non payment of the loan is the expectation that the government will write off their debts in future; and hence they think it is unwise to pay back the debt. (the present left government had offered to write off the debts of fishermen). Nearly 76 percent of the borrowers do not pay back loans due to the above reason. For 45.7 percent lack of compulsion from the agency concerned is the major reason for not repaying the loan. Low catch, the feeling that the Matsyafed is not doing any help to them are other reasons for not repaying the loan. About 13 percent of the respondents opined that a good part of the money of government agencies is utilized not for the well being the fisherfolk, but for that of the officials; and hence, they are reluctant to pay the loan back.

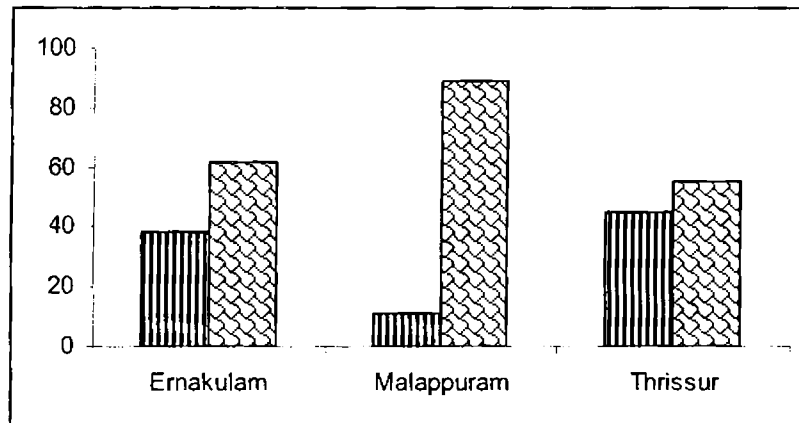
Table 5.19.

Nature of Rpayment

Response	Ernakulam	Malappuram	Thrissur	Grand total	
	Percent	Percent	Percent	No	Percent
Yes	38	11	45	94	31
No	62	89	55	206	69
Total	100	100	100	288	100

Source: Survey data

Chart. 5.13. Nature of Repayment



The credit taken from other sources are promptly repaid by 31 percent of the respondents. There is no promptness in repayment in the case of 69 percent, irrespective of the source from where they have taken the loan. Only eleven percent of the respondents in Malappuram make prompt repayment of their debt; it is 38 percent in Ernakulam and 45 percent in Thrissur districts.

Chapter 6

*Social Security Schemes
Meant For Small Scale
Fisher Folk In Kerala*

CHAPTER- 6

SOCIAL SECURITY AND WELFARE SCHEMES MEANT FOR SMALL SCALE FISHER FOLK IN KERALA

In the last chapter we discussed the nature of borrowings and indebtedness and extent of savings by the fisher folk and how far the government intervention through its agencies like assisted them in getting loans and advances, relieved from indebtedness and the creation of thrift and savings in the lifestyle of the fisher folk.

In this chapter it is proposed to discuss the social welfare and security schemes implemented for the benefit of the small-scale fisher folk in Kerala.

Social security was the subject of a general discussion, at the 89th Session of the International Labour Conference held in June 2001, which need to give attention to policies and initiatives to expand the coverage of social security in order to reach those lacking it. It was specifically recognized that there is no single ideal model of social security, but that there are social assistance schemes, universal schemes, social security schemes and public or private systems. Moreover, it is specific for each society to choose the best way of guaranteeing income security. Social assistance schemes become an important option not for simply extending coverage, but to improve the

impact of social security in reducing poverty among vulnerable groups, such as those excluded from the formal labour market, or those who have no reliable income from the field of their work.

Fabio Bertranou¹, Chief Social Security Expert, in his paper 'Filling the Protection Gap: The Role of Minimum Pensions and Welfare Benefits', in the International Social Security Association Seminar on

"Financial and Actuarial Bases of Pension Schemes" held in 2002, had made the following observations: "Economic insecurity and the lack of social protection are, to some extent directly linked to the models for the provision of social security adopted by countries that they can afford. In most countries, even those with the most advanced systems of social protection, a significant proportion of workers and their families engage in activities of an informal nature, lay outside the ambit of contributory social security schemes. The exclusion from contributory social security schemes is closely linked to problems of poverty and destitution. These are associated with a low level of employable skills, resulting in marginalization from the formal labour market and hence from channels of access to social security coverage. For its part, social security reduces vulnerability, maintaining income levels in adversity and improving the well-being of the protected worker. As a result, this prevents the descent into poverty and permanent destitution."

Kerala state is number one among the Indian states with regard to provision of social security and welfare measures. The state has extended a number of schemes for social security and welfare measures for the people in general and fisherfolk in particular. The welfare and social security measures for the fisherfolk are implemented through agencies such as the state fisheries department, Fishermen welfare Fund board (Matsyaboard) and Kerala state cooperative federation for fisheries development (Matsyafed).

6.1. Fisheries Department Schemes

After the incorporation of Kerala Fishermen Welfare Corporation, most of the social security schemes meant for the fisher folk were channelised through this corporation, instead of the fisheries department.

The welfare and social security schemes meant for the fisherfolk include Savings-cum-Relief Scheme, National Fishermen Welfare Fund (NFWF) Housing, Theerajyothi, DANIDA Model Sanitation etc. The housing and rehabilitation schemes were implemented through fisheries department till 1980.

Table 6.1 and chart 6.1 provide information regarding saving-cum-relief scheme for 10 years starting 1996-97.

Table 6.1.

Saving-cum-Relief Scheme

Year	No. of beneficiaries	Amount spent (Rs. In Crores)
1996-97	87994	4.75**
1997-98	84208	4.54**
1998-99	96768	5.28**
1999-00	103649	5.60**
2000-01	108492	5.86**
2001-02	89638	4.84**
2002-03	100950	6.08*
2003-04	1,06,000	6.54*
2004-05	1,25,000	6.76*
2005-06	1,25,000	6.76*

Source: Marine Fisheries of Kerala at a Glance, Department of Fisheries, 2003.

* Economic Survey -various issues, ** calculated, (Rs. 1080/- per head)

Chart 6.1. Saving-cum-Relief Scheme

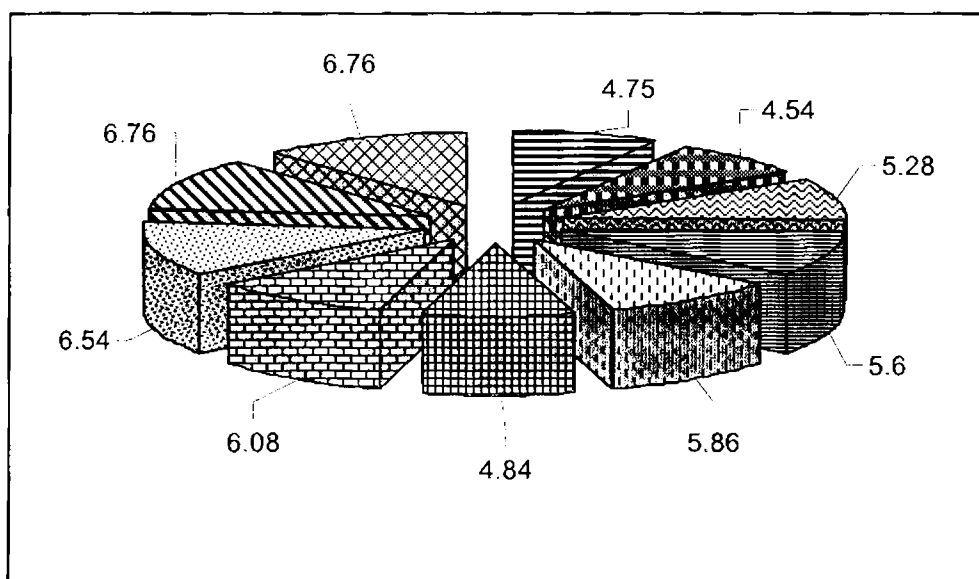


Table 6.1 and chart 6.1 provide information regarding the number of beneficiaries and the amount spent under Saving-cum-relief scheme introduced to give sustenance to fishermen during off- seasons. The amount disbursed to the fishermen is mobilized through contributions from fishermen themselves and an equal amount from the state and the central governments. During 1996-1997 the number of beneficiaries was 87994 and their number increased up to 1, 25,000 during 2005-06, with an exception during the year 2001-02. During 2001-02 the total number of the beneficiaries was only 89638.

Table 6.2 and chart 6.2 provide details regarding the number of beneficiaries under saving-cum-relief scheme from 1996 to 2006.

Table 6.2.
Beneficiaries under Saving-cum-Relief Scheme

Name of District	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
Thiruvananthapuram	11626	10672	14436	17335	19216	17705	26368	25032	22712	23232
Kollam	13449	13820	15374	15662	16246	14326	15570	15462	17063	19214
Alappuzha	20736	20829	22083	22875	22855	17661	20032	22080	22895	23538
Ernakulam	9094	8284	9525	9930	10226	8430	9574	10844	11772	12735
Thrissur	4646	4399	4734	4967	5112	4488	3816	4768	5195	5367
Malappuram	8773	9086	11139	12106	13033	9472	8622	10333	11793	12223
Kozhikode	11914	10688	11828	12525	13142	10773	11240	12198	15083	16025
Kannur	3354	2903	3451	3562	3662	2656	2311	2736	3174	3225
Kasargode	4402	3527	4198	4687	5000	4127	3417	6331	7121	7319
Total	87994	84208	96768	103649	108492	89638	100950	110484	116808	122878

Source: Marine Fisheries Statistics of Kerala 2005, Department of Fisheries, Government of Kerala.

Chart 6.2. Beneficiaries under Saving-cum-Relief Scheme

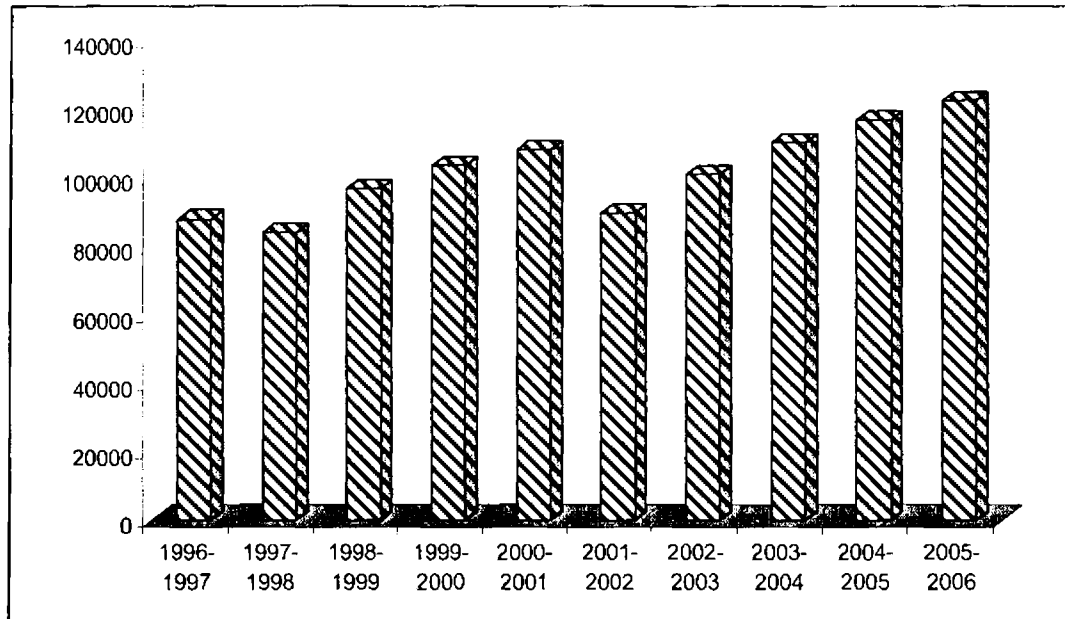


Table 6.2 and chart as well as 6.2 give details with respect to the number of beneficiaries in the nine fishermen villages from the year 1996-97 to 2003-04. In the year 1996-97 the number of beneficiaries in Ernakulam district was 9094, Thrissur 4646 and in Malappuram, 8773. The number is increased to 10844 in Ernakulam district, 4768 in Thrissur and 10333 in Malappuram in the year 2003-04. The largest number of beneficiaries belongs to Thiruvananthapuram (25032) during the year 2003-04 and the lowest number was in Kannur. Kannur is the only district where the number of beneficiaries decreased during 2003-04 when compared to the year 1996-97.

Table 6.3 and chart 6.3 present information regarding implementation of NFWF Housing Scheme at district level during 2005-2006.

Table 6.3
NFWF Housing Scheme

Sl. No.	District	Total No. of units Allotted	Percentage to Total	Amount Already Released up to 2005-06 (in lakhs of rupees)
1	Thiruvananthapuram	300	20.00	90.00
2	Kollam	170	11.33	51.00
3	Alapuzha	270	18.00	81.00
4	Kottayam	40	02.67	12.00
5	Ernakulam	150	10.00	45.00
6	Thrissur	65	04.33	19.00
7	Malappuram	180	12.00	54.00
8	Kozhikode	150	10.00	45.00
9	Kannur	60	04.00	18.00
10	Kasargode	100	06.67	30.00
11	Pathanamthitta	5	00.33	01.50
12	Idukki	5	00.33	----
13	Palaghat	5	00.33	02.00
	Total	1500		449.00

Source: Directorate of Fisheries, Kerala, 2006.

Chart 6.3 NFWF Housing Scheme

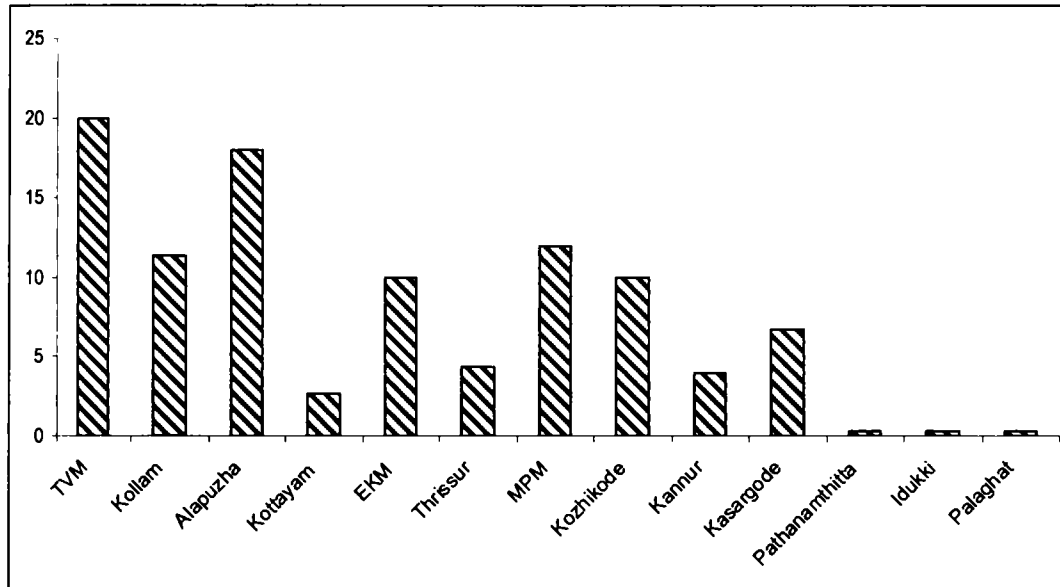


Table 6.4.

Welfare Measure of Fisheries Department- Beneficiaries

Particulars	96-97	97-98	98-99-	99-00	00-01	01-02	02-03	03-04	04-05	05-06	Total
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		
Saving-cum-relief scheme		84208	96768	103649	108492	89638	100950	106000	-	1,25,000	
NFWF Housing		151	1543	1252	1382	1592	445	150	1500	1500	10865
Danida Model Sanitation		100	1444	1018	102	2000	-	-	-	-	5567
Theerajyothi (electrification)		2903	3961	2211	421	5000	-	-	-	-	14496

Source: *Economic Review-various issues. - Data not available

Table and chart 6.3 reveal that 1500 houses were expected to be built during 2005-2006 under NFWF Housing Scheme and a total amount of Rs. 449 lakhs were earmarked for the purpose.

Thiruvananthapuram, Alappuzha, Malappuram, Kollam and Ernakulam districts were the major beneficiaries under the scheme. Thrissur got only small part of the total allocation.

Table 6.4 and chart 6.4 list the various welfare programmes implemented by the fisheries department during 1996 to 2006. NFWF housing scheme was availed by 10865 fishermen during the years 1996 - 2006.

Table 6.4 and chart 6.4 present information regarding the welfare measures and the number of beneficiaries under the different schemes from 1996 to 2006.

Chart 6.4. Welfare Measure of Fisheries Department- Beneficiaries

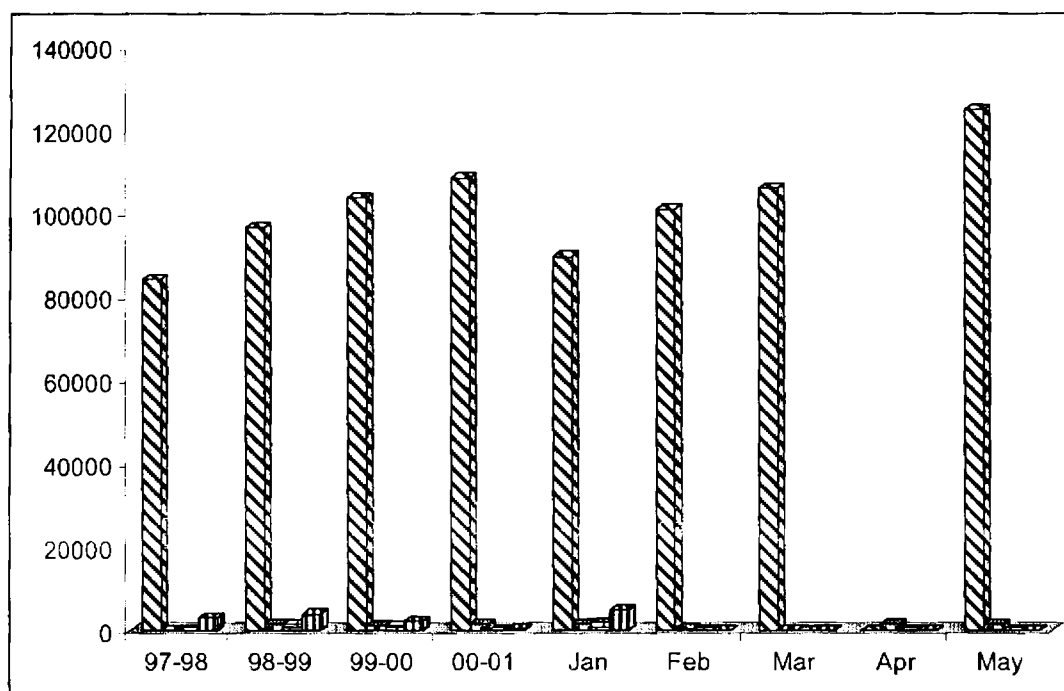


Table and chart 6.4 show that there was a steady increase in the number of beneficiaries under the different welfare schemes implemented by the fisheries department. The number of beneficiaries under saving-cum-relief schemes went up from 84208 during 1997-1998 to 12500 during 2005-2006. Similarly, under NFWF Housing Scheme, the number of beneficiaries increased from 151 during 1997-1998 to 1500 during 2005-2006. Similar increases were seen in case of schemes such as *Group Accident Insurance scheme, Fishermen old age pension and widows of fishermen after the introduction of these schemes*. In the case of Danida model sanitation and Theerajyothi electrification, there was also a reduction in the number of beneficiaries during 2000-2001 compared to the previous year. Danida model sanitation and Theerajyothi electrification schemes were ceased to be implemented since 2002-03.

Table 6.5 and chart 6.5 provide information regarding the amount spent on different welfare activities from 1996 to 2006 by the fisheries department.

Table. 6.5.
Welfare Activities - Fisheries Department

(In lakhs of rupees)

Particulars	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	Total
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(12)
Saving-cum-relief		-	-	-	-	-	608	654	676	676	
NFWF Housing		670	600	600	800	800	178	600	600	600	11478
Sanitation		30	60	60	80	500	-	-	-	-	280
Theerajyothi		30	60	60	80	50	-	-	-	-	280
Group Insurance		-	-	-	20	30	58	66	68	75	317
Old age pension		-	-	-	300	181	472	512	462	656	2283
Pension for wives of deceased fishermen		-	-	-	-	9	23	5	22	79	138

Source: Economic Review –various issues

Chart 6.5. Welfare Activities - Fisheries Department

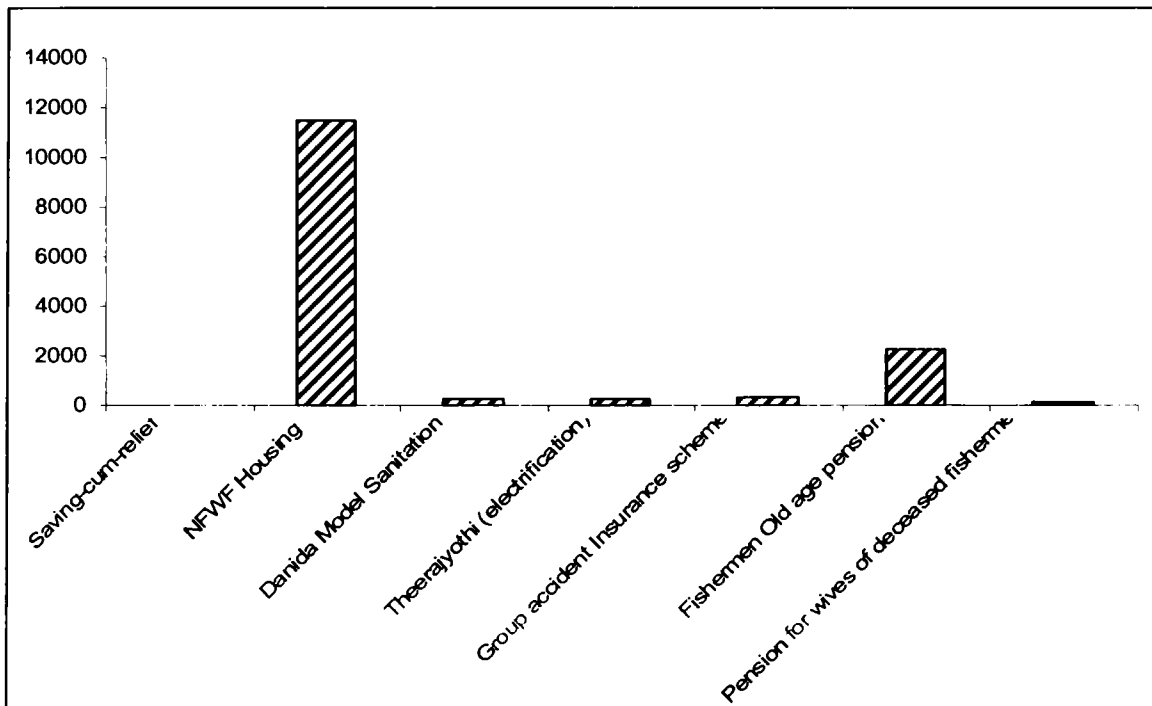


Table 6.5 and chart 6.5 show that under NFWF assisted housing scheme, Rs. 11477.8 lakhs were spent from 1997-1998 to 2005-2006. Under Danida Model Sanitation, Rs. 280 lakhs were spent during a period of five years starting from 1997-1998 to 2001-2002. Similarly, for Theerajyothi Electrification was were spent under different years.

6.2. Kerala Fishermen's Welfare Fund Board (KFWFB)

Kerala Fishermen's Welfare Fund Board (KFWFB) is a statutory Board constituted by the Government of Kerala under the provisions of the Kerala Fisherman's Welfare Fund Act 1985. Its headquarters is at Thrissur. There are 3 regional offices located at Thiruvananthapuram, Ernakulam and Kozhikode.

The government was seriously thinking about the social welfare schemes in the mid eighties, and a comprehensive proposal for consolidating all the requirements of the fishermen from birth to death was enlisted, and a separate body was constituted in the name Kerala Fishermen Welfare Fund Board. Under the ambit of this board, a number of schemes were prepared and funds were disbursed according to their requirements or requests. Matsyaboard is expected to take care of the welfare and social security requirements of the fisher folk. The effectiveness of these measures intended to improve the conditions of

the small-scale fishermen in a sustainable manner depended on the awareness of fishermen themselves.

Table 6.6. and chart 6.6 present details of funds disbursed through the Board under various schemes from 1986 onwards. A scrutiny of the schemes reveals that a number of schemes introduced initially were discarded during implementation period. Then newer schemes were introduced at various stages of implementation taking into consideration the requirements and suggestions of the implementing officers, experts in the appropriate area and fishermen themselves.

Table 6.6.
Social Security Schemes

Schemes	Till 1998 Rs. lakhs	98-99 Rs. lakhs	99-00 Rs. lakhs	00-01 Rs. lakhs	01-02 Rs. Lakhs	02-03 Rs. lakhs	2003- 04 Rs. Lakhs	2005- 06 Rs lakhs	Total Rs. Rs. lakhs
Death insurance	24.42	53.15	47.25	37.75	30.46	56.00	64.05	27.95	272.82
Disability insurance	1.17	0.37	1.50	.75	.25	1.00	3.00	1.00	8.04
Non-accident death compensation	6.78	8.85	8.45	10.25	7.23	7.65	6.55	7.85	46.13
Marriage of daughters	7.51	36.66	44.05	48.09	38.35	32.65	43.20	19.97	184.04
Funeral of dependents	1.66	3.09	2.68	3.74	5.13	6.39	6.86	6.11	26.79
Old age pension	226.86	228.68	248.86	346.18	180.87	472.20	459.07	656.25	2321.92
For temporary disability	2.88		5.73	5.53	4.08	4.11	3.47	3.88	20.07
To dependents on fishermen's death	2.90	4.72	2.68	28.54	26.15	30.83	22.40	25.5	89.03
Fatal Diseases	1.92	3.73	7.14	14.17	17.81	16.26	18.74	20.08	67.87
Chairman's relief fund	0.25	1.81	0.77	.76	1.00	1.22	1.53	00.90	5.98
a. Eye ailments	0.43			.004	Nil				0.43
b. Maternity assistance	0.01	2.8		4.80	7.05	9.32	8.39	8.46	23.26
c. Family welfare	1.39	5.70	6.73	6.56	4.43	4.91	3.61.	3.60	25.93
d. Cash award to students	0.08	0.16	0.16	.39	.36	.39	00.30	00.39	1.38
e. Scholarships	1.39	0.04	0.04	.02	.51	0.54	00.51	0.59	3.11
f. sanitation scheme	2.18	14.79		Nil	.0015		0	0	16.97
g. pension to widows				Nil	9.35	22.58	44.50	78.93	146.01

Source: Economic review -various issues;

Annual reports of Matsyaboard

Chart 6.6. Social Security Schemes

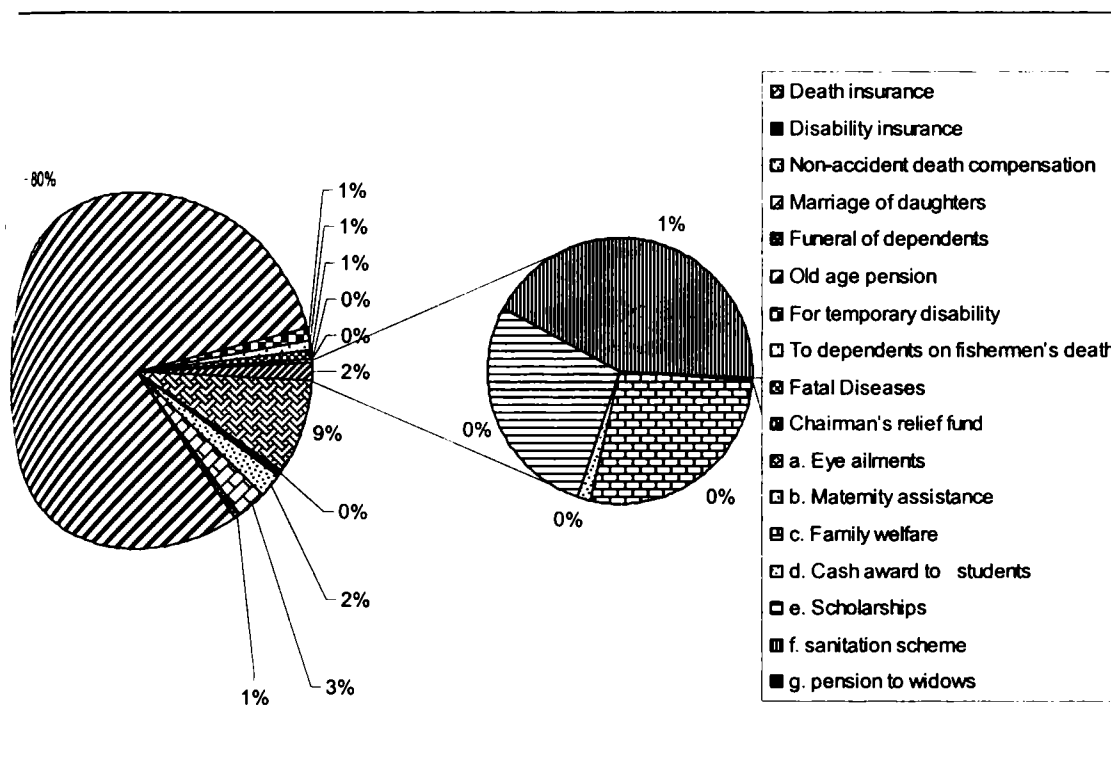


Table and chart 6.6 reveal that Matsyaboard has disbursed rupees 2321.92 lakhs as old age pension for the fishermen, which has the largest amount of disbursed. Next is rupees 272.2 lakhs as death insurance. Third important one is for the marriage of fishermen's daughters with Rupees 184.04 lakhs. The other schemes are disability insurance (Rupees 8,04 lakhs), Rs. 46.13 lakhs for non-accident death compensation, 26.79 lakhs as funeral expenses of fishermen's dependents, Rs. 20.07 lakhs for temporary disability of the fishermen, Rs. 89.03 lakhs for dependents on fishermen's death, Rs. 67.87 lakhs for the treatment of fatal diseases, Rs. 5.98 lakhs as Chairman's relief Fund, Rs. 0.47 lakhs for the treatment of eye ailments, Rs. 28.26 lakhs

for maternity assistance, Rs. 25.93 lakhs for family welfare, Rs. 1.38 lakhs for cash awards to students of fishermen community, Rs. 3.11 lakhs for scholarships to fishermen students, Rs. 16.97 lakhs for the implementation of sanitation programme in fishermen villages and Rs. 146.01 lakhs for pension to the widows of fishermen. The amount disbursed under different heads varied during the periods of the study. Two schemes, that showed considerable increase over the time, are old age pension and pension to widows of fishermen.

Table 6.7 gives account of beneficiaries who have enjoyed the benefits of various schemes implemented by Matsyaboard from 1996 to 2006.

Table. 6.7.

Welfare and Relief Schemes

Details of the Scheme	Year of starting		96-97	97-98	98-99	99-00	02-03	03-04	04-05	05-06
(2)	(3)		(4)	(5)	(6)	(7)	(8)	(9)		
Group Insurance scheme a) accidental death	10.9.1986	50,000	71	66	104	96	61	64	86	28
Permanent total disability	10.9.1990	50,000	1	--		5	3	---	0	-
Permanent partial disability	10.9.1992	25,000	7	--	2			2	1	2
Medical expenses hospitalization				--			64	72	0	-
Death while fishing of immediately after not due to accident	10.9.1986	15000	39	56	60	48	38	33	22	43
Financial assistance-Marriage of daughters	1.1.1987	1500	1330	2072	2444	2937	2177	2880	334	1331
Financial assistance-Death of dependents	1.1.1987 1.1.1991	250 300	897	856	668	896	1069	1209	390	1018
Fishermen Pension	2.10.1986 1.7.1992 1.7.1997	75 85 100	25736	26967	26734	27017	27240	25268	27979	27979
Financial assistance-temporary disability due to accident	4.4.1987 1.1.1991	300 500	1172	1130	1367	1717	1091	807	550	903
Financial assistance-expenses for death of fishermen	4.4.1987 1.1.1991	250 5000	315	527	462	610	604	---	460	510
Cash award to SSLC toppers	7.5.1990	2000,	13	16	13	13	18	16	15	17
Scholarships to toppers to continue study	26.5.1994	1000 3000, 2000 100 /month	6	17	4	4	16	15	16	
Financial assistance -- sterilization operation	1.1.1991 9.4.1994	250 500	1077	1294	1140	--	983	722	483	720
a) Financial assistance --fatal diseases	1.4.1995	40,000	73	235	199	144	235	260	226	248
b) pension to irrecoverable patients		100	7	--	40	118	41		13	
Sanitation scheme	20.5.1996	2500	900	274	607	101	---	---	---	
Chairman's relief fund	27.11.1996	100-2,500	30	263	174	154	163	154	117	78
Maternity benefit scheme	1.8.1997	500	--	25	560		1277	1118	577	1081

Source: Economic review- various issues; Annual reports of Matsyaboard

From table 6.7, it is clear that most popular and largest availed is the pension scheme. The other schemes according to their importance is assistance for the marriage of daughters of fishermen, financial assistance for temporary disability due to accident, financial assistance for the death of dependants, assistance for sterilization operation, group insurance for death due to accident, sanitation, financial assistance to meet the expenses at the time of death of fishermen etc. The number of beneficiaries has increased year after year except for 2004-05.

Table 6.8 and chart 6.7 provide information regarding the number of beneficiaries under the pension scheme.

Table 6.8.

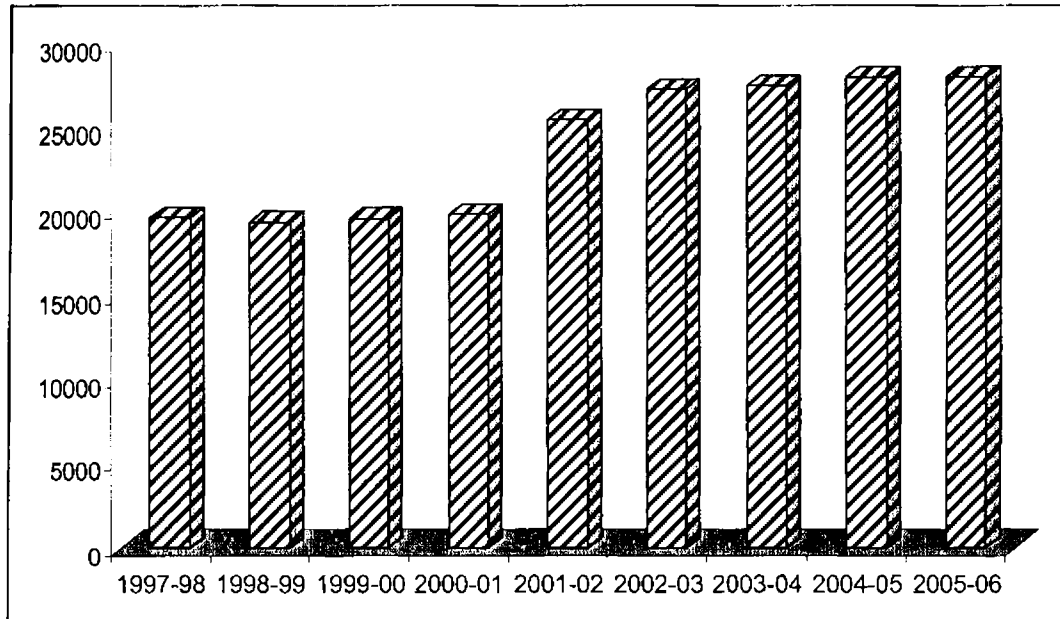
Fishermen Pensioners

Year	No. of beneficiaries
1997-98	19631
1998-99	19415
1999-00	19613
2000-01	19823
2001-02	25400
2002-03	27240*
2003-04	27488
2004-05	27979#
2005-06	27979

Source: Marine Fisheries of Kerala at a Glance, Department of Fisheries, 2003

*Marine Fisheries Statistics of Kerala, Department of Fisheries, 2005 #
Economic review 2005

Chart 6.7. Fishermen Pensioners



The pension schemes were implemented from 1997-1998 onwards. There were 19631 pensioners during the first year of the implementation of the pension scheme and ever since the number is increasing at a fast rate, and during 2005-2006 their number rose to 27979.

Table 6.9 and chart 6.8 provide details regarding the number of pensioners in each district from 1997 onwards.

Table 6.9.
Fishermen Pensioners

Name of district	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06
Thiruvananthapuram	5490	5586	5570	5575	5575	5733	5613	5101	5490
Kollam	2810	2992	3030	2995	4097	5607	2557	3884	3900
Alappuzha	3000	2954	3104	3235	4985	2552	2555	4709	4825
Emakulam	1462	1482	1529	1574	3570	1338	1338	3428	3360
Thrissur	1437	1360	1373	1325	1618	1215	1215	1609	1736
Malappuram	1689	1596	1581	1616	1616	1424	1375	1410	1689
Kozhikode	1566	1388	1385	1445	1616	1394	1360	1415	1754
Kannur	932	868	915	847	1112	1017	1015	1049	1179
Kasargode	1245	1189	1126	1211	1211	1151	1157	1280	1245
Total	19631	19415	19613	19823	25400	21431	18185	25668	26967

Source: Marine Fisheries Statistics of Kerala 2005, Department of Fisheries, Government of Kerala, Annual reports of Matsyaboard

Chart 6.8. Fishermen Pensioners

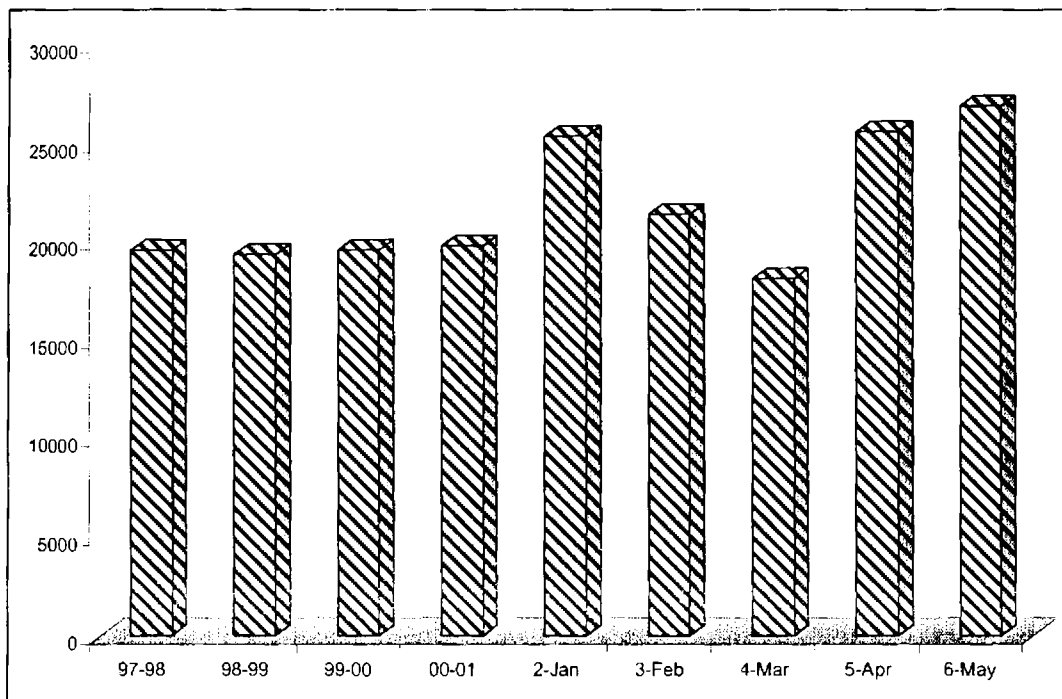


Table 6.9 and chart 6.8 show district-wise number of fishermen pensioners. Their number is the highest in Thiruvananthapuram district and the lowest in Kannur. Their numbers vary from year to year, and from district to district. The number of beneficiaries is increasing from years to year except in the year of 2003-2004. The highest number of beneficiaries is during 2001-2002.

6.3. Matsyafed

Housing and Accommodation.

To solve the housing problems of fishermen, various schemes were initiated by the state government in the fishery villages since 1960 onwards. The 'Housing and Colonization Programmes was the first scheme launched by the state government in the land provided by the Department of Fisheries. This was followed by the 'Housing Grant Scheme', implemented for fishermen with limited land holdings.

Table 6.10 and chart 6.9 give information regarding housing and rehabilitation schemes of Fisheries Department, KFWC and Matsyafed.

Table 6.10.
Housing and Rehabilitation

(Rs. Million)

Agency	1964-1980	1981-1985	1986-1998	1997-2002	Percentage increase
Fisheries department	19.92*		70.80*	350.2. 17.79.	1758.03
KFWC		30.40*	62.80* #		206.58
Total	19.92	30.40	133.60*	367.81	1846.44

Source: 1. #Matsyafed, Fisheries Department, Kerala Fishermen Welfare Corporation

2. Economic Review 2003, 3. * Kurien 2001

Chart 6.9 Housing and Rehabilitation

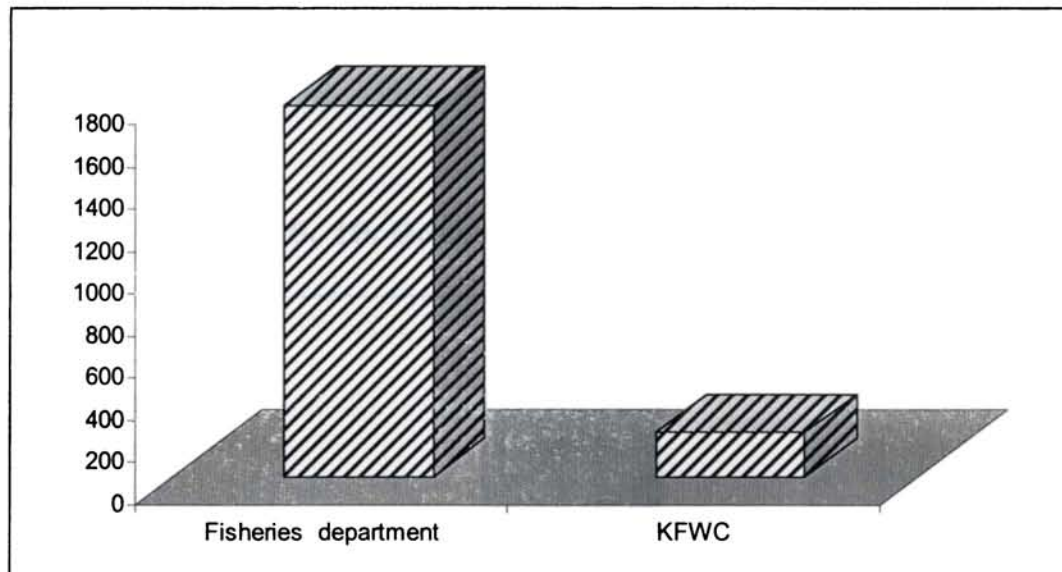


Table 6.10 and chart 6.9 reveal that the fisheries department has spent Rs. 19.92 million for housing and rehabilitation from 1964 to 1980, Rs. 70.80 millions during 1986-1998 and Rs. 367.81 millions

during 1997-2002. Similarly, KFWC has spent Rs. 30.40 millions during 1981-1985 and Rs. 62.8 million during 1986-1998.

The details of the housing schemes implemented prior to 1980 are furnished in Table 6.11 and chart 6.10.

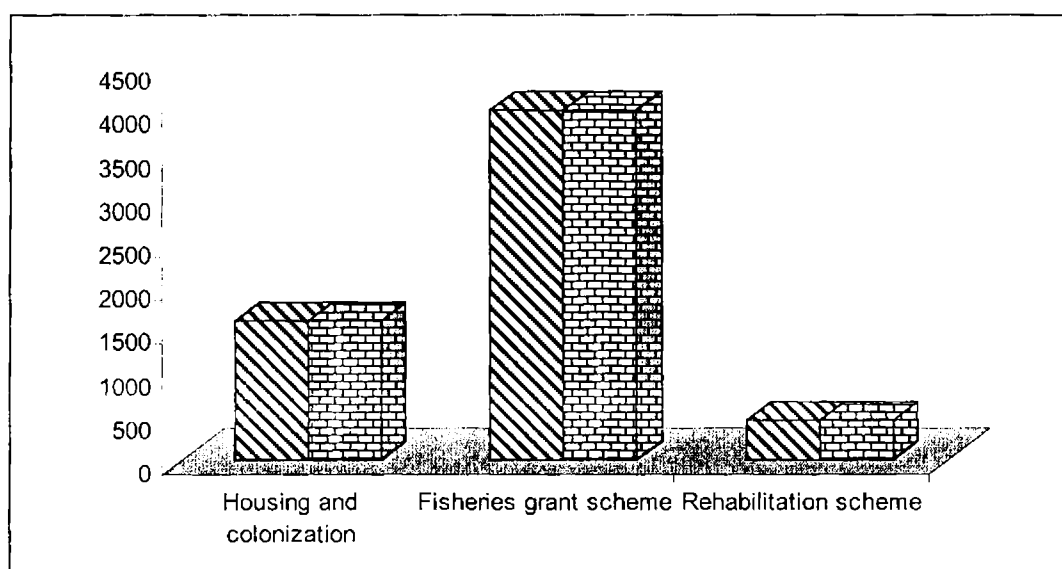
Table. 6. 11.

Housing Schemes Prior to 1980

Name of the scheme	No. of houses sanctioned	No. of houses constructed
Housing and colonization	1611	1611
Fisheries grant scheme	4010	4010
Rehabilitation scheme	452	452
Total	6073	6073

Source: Development of Social Infrastructure Facilities in Fisheries Sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12.

Chart. 6. 10. Housing Schemes Prior to 1980



The HUDCO assisted housing scheme with loan and subsidy component was introduced by Kerala Fishermen Welfare Corporation, and later by Matsyafed. But due to various reasons, the scheme lost its significance and was discontinued since 1999-2000.

The Construction of 33,400 houses were completed during 1985-96 period, the details of which are given in Table- 6. 12 and chart 6.11.

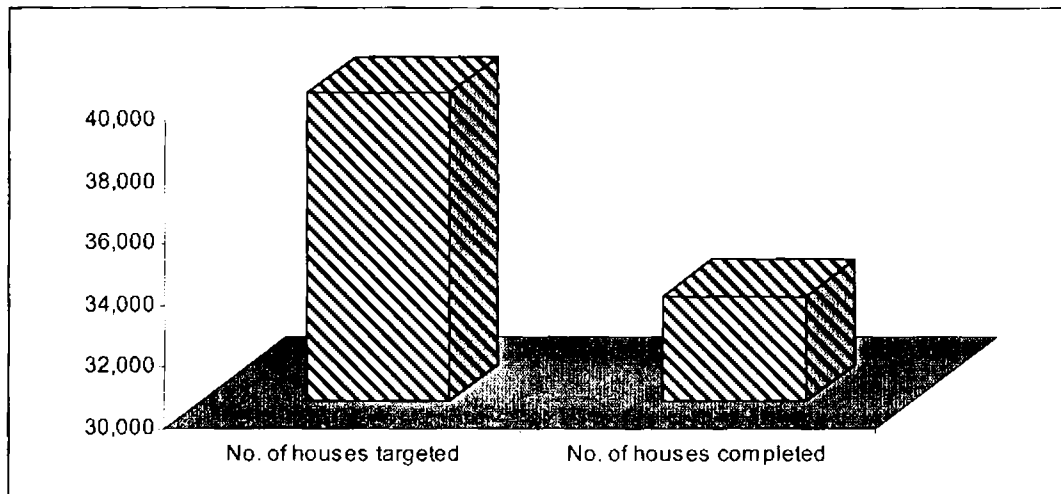
Table 6.12.

HUDCO Assisted Housing Scheme

Particulars	State-1	Stage- 11	State- 111	Stage- 1V	Total
No. of houses targeted	10,000	10,000	10,000	10,000	40,000
No. of houses completed	10,000	10,000	10,000	3,400	33,400
Expenditure (Rs. In crores)	4.00	5.00	6.00	4.76	19.76

Source: Development of social Infrastructure facilities in Fisheries sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12.

Chart 6.11. HUDCO Assisted Housing Scheme



The Fisheries Department had implemented the housing schemes with the assistance of National Fishermen Welfare Fund and as per norms of Xth Finance Commission. An amount of Rs.35,000/- was granted to the fishermen having at least 1.5 cents of land. A District Level Beneficiary Committee selected the beneficiaries. The beneficiaries themselves were given freedom to undertake construction of the houses. This was to eliminate exploitation by the contractors. The details of implementation are furnished in the Table 6.13.

Table 6.13.

Housing under National Fishermen Welfare Scheme

1995-96	348.19	934	934
1996-97	348.90	1199	1170
1997-98	600.00	1713	1509
1998-99	600.00	1717	1447
1999-00	599.50	1719	918
2000-01	800.00	2284	.....
2001-02*	800.00	.....	1592
2002-03*	177.87	.....	445
2003-04*	600.00	....	1500
2004-05\$	600.00	.....	1500
2005-06\$	600.00	.....	1500
Total	6789.19#	12031	#14701

Source: 1. Development of Social Infrastructure Facilities in Fisheries Sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12.
2.* Economic Review 2004, 3. \$ Economic Review 2006 , 4. # Calculated

Table 6.13 shows that Rs. 6789.19 lakhs was allotted over a period of 19 years, starting from 1987-88; and 12031 houses were allotted for construction. But the number of houses actually constructed is estimated to be 14701 which is higher than the allotted number.

Table 6.14 and chart 6.12 show details of allotted funds and houses, completed houses under the Xth Finance Commission.

Table 6.14.

Housing under Xth Finance Commission

Year	Allotted Amount (Rs. In Lakhs)	No. of Allotted Houses	No. of Completed Houses
1996-97	.....	.....	....
1997-98	750.00	2142	1969
1998-99	899.85	2571	2354
1999-00	1349.90	3587	1735
Total	1999.75	8570	6058

Source: Development of Social Infrastructure Facilities in Fisheries Sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12.

Chart 6.12. Housing under Xth Finance Commission

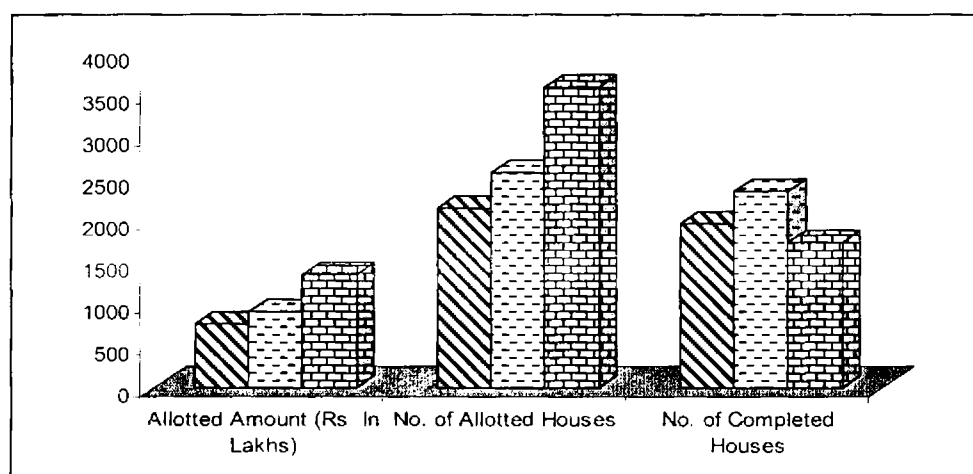


Table 6.14 and chart 6.12 reveal that the Xth Finance Commission allotted Rs 1999.75 lakhs for the construction of 8570 houses over a period of four years starting from 1996-97. But only 6058 houses were completed by 1999-2000.

The state government has paid adequate attention to construct houses for rehabilitating fishermen who lost their houses for various reasons. The details of which are furnished in Table 6.15 and chart 6.13.

Table 6.15.

Housing under Rehabilitation Scheme

Scheme	No. of Houses Completed	No. of Houses to be Completed
Vishinjam	867	164
Thankassery	100	124
Pozhiyoor	200	.....
Total	1167	288

Source: Development of Social Infrastructure Facilities in Fisheries Sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12.

Chart 6.13. Housing under Rehabilitation Scheme

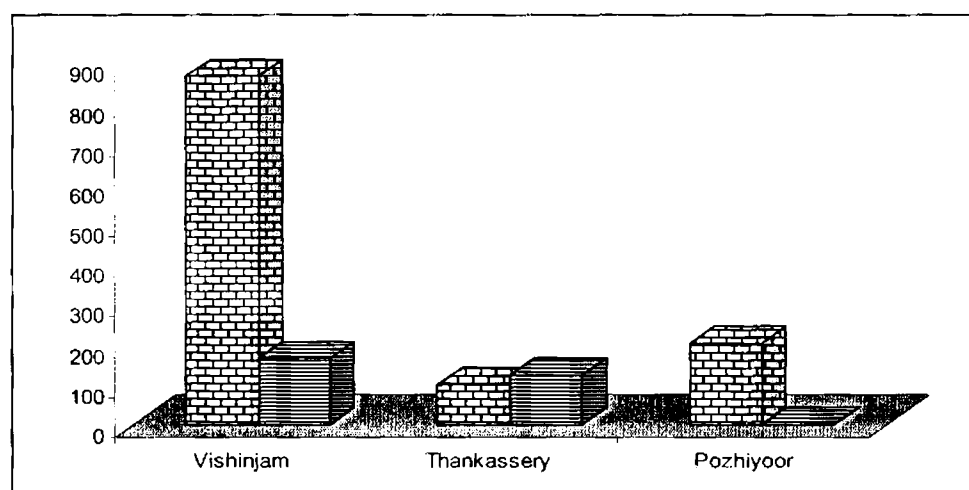


Table 6.15 and chart 6.13 provide information regarding the number of houses completed and the number of houses yet to be completed under the Rehabilitation Scheme in different areas in the state.

Vizhinjam rehabilitation scheme has been implemented by availing finance from HUDCO and NFWF. An amount of Rs. 69.74 lakhs was granted for Thankassery rehabilitation scheme. In order to rehabilitate the fishermen at Pozhiyoor who were the victims of liquor tragedy, Rs. 70 lakhs was granted and 200 houses were constructed.

An abstract of statement of various housing schemes so far undertaken in fisheries sector is given in Table 6.16 and chart 6.14.

Table 6.16.

Housing Schemes in Fisheries Sector

Sl. No.	Name of the Scheme	No. of Houses completed	No. of houses sanctioned	Amount expended (Rs. In crores)
1	Housing and Colonization	1611	1611	0.24
2	Fisheries grant scheme	4010	4010	N.A.
3	Housing Under HUDCO scheme	33400	40,000	19.76
4	Housing under NFWF	*14701	12031	*67.89
5	Housing under Xth finance commission	6058	8570	29.99
	Total	*59780	66,222	117.88*

Source: Development of social Infrastructure facilities in Fisheries sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12. Calculated from various issues of economic review

Chart 6.14. Housing Schemes in Fisheries Sector

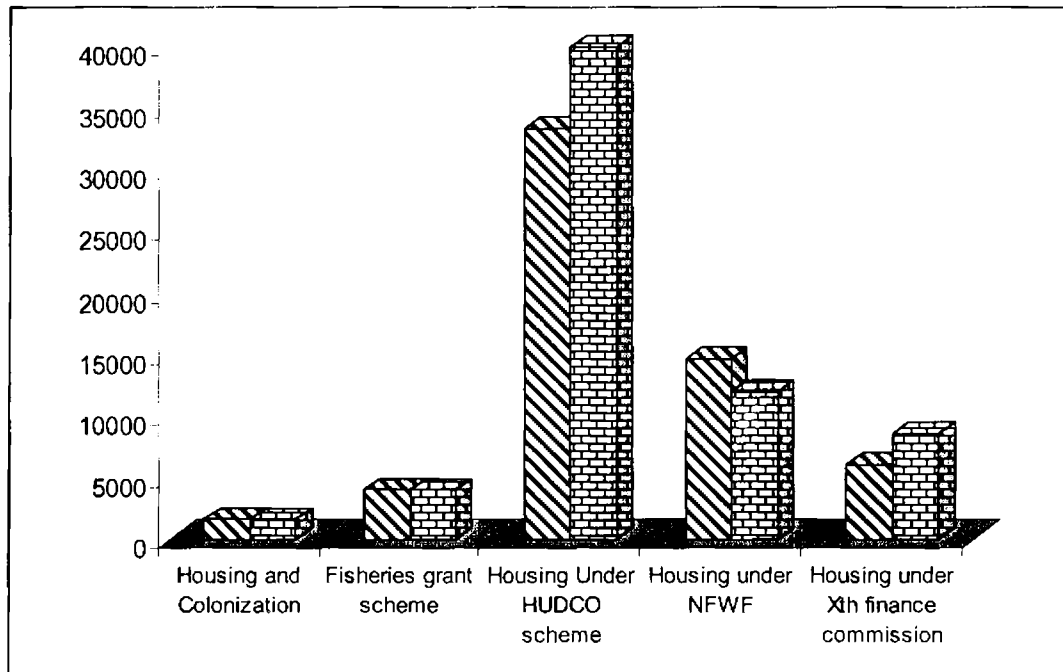


Table 6.16 and chart 6.14 show that a total of 59780 houses were constructed under various schemes for the benefit of the fisher folk in the state for which Rs 11788 lakhs were spent. There was some discrepancy with respect to the number of houses allotted under various schemes and the number of houses actually constructed.

In addition to the Central and state sponsored housing schemes , local bodies also constructed substantial number of houses for fishermen , the details of which are not available. The implementation details of various schemes under Tsunami is also not available A total housing programme is going to be implemented in

Thiruvananthapuram, Kollam and Thrissur districts with the initiative of local bodies.

Sanitation.

Fishermen settlements totally lack latrine facilities. Hence Matsyafed had implemented a scheme to provide latrines to fishermen households with the assistance from HUDCO. The state government is also implementing a scheme through local bodies for providing latrines to fishermen houses since 1997-98. The cost of each unit is Rs. 2,500/- 9200 fishermen benefited from this scheme. The details of implementation are furnished in Table 6.17 and chart 6.15.

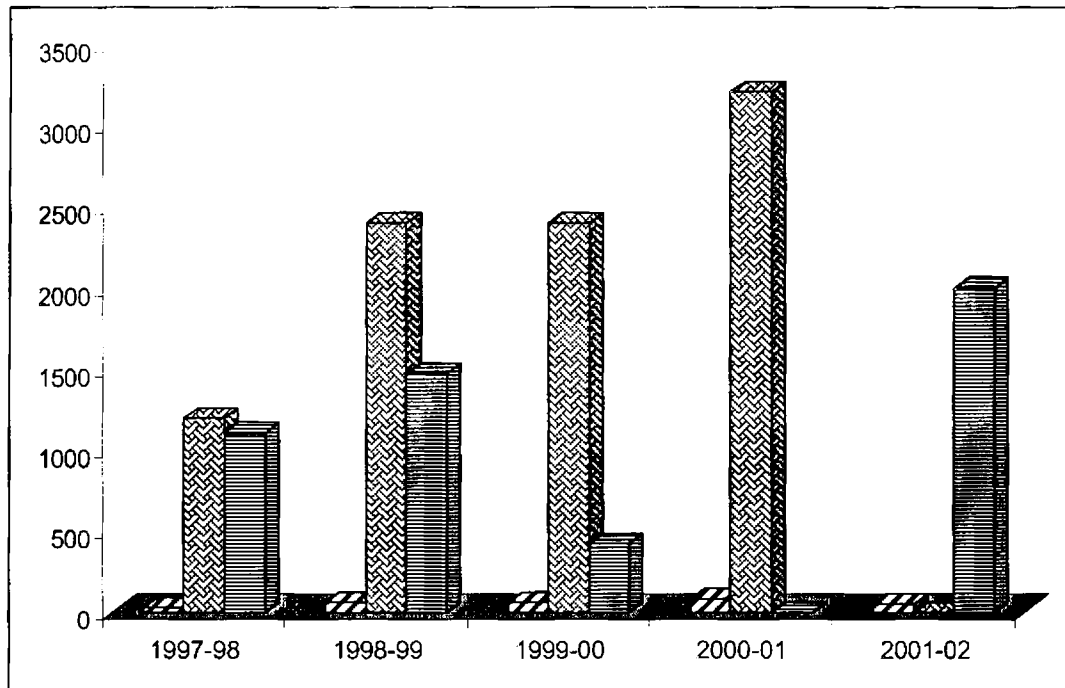
Table 6.17.
Schemes of Sanitation.

Year	Amount sanctioned (Rs. in Lakhs)	No. of latrines sanctioned	No. of latrines constructed
1997-98	30	1200	1108
1998-99	60	2400	1472
1999-00	60	2400	427
2000-01	80	3200	Nil
2001-02	50*	.....	2000*
	280	9200	3007

Source: Development of Social Infrastructure Facilities in Fisheries Sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12.

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Chart 6.15. Schemes of Sanitation.



Alappad, a coastal Panchayath in Kollam district, successfully implemented a total sanitation programme and set an example for the local level intervention in addressing the sanitation problems of fishermen by the integration of various departments, and pooling of funds obtained from various agencies.

Drinking Water

One of the reasons for poor health conditions and general well-being in fishing villages is inadequate supply of safe drinking water. Wells and public taps are the main source of drinking water. However only 17 percent of the villages have wells exclusively used for drinking

water. Eighty eight percent of the villages have public water taps. In fishing villages, at least some of the houses have direct tap water supply. However, scarcity of safe drinking water continues to be a major problem in fishing villages.

The state government is implementing a drinking water scheme exclusively for fishing villages, utilizing the grant from the Xth Finance Commission. The target is to cover 70 fishing villages, and the outlay earmarked for the programme is Rs. 7 crores at the rate of Rs. 10 lakhs per village. Out of these schemes, only twenty-three have been completed, and the remaining is in different stages of progress.

In addition to the above schemes drinking water facilities in six villages covering the districts of Kottayam, Kannur and Kasargode were introduced during the year 2005.

Table 6.18 and chart 6.16 give details regarding the number of beneficiaries under this scheme and the estimated amount prepared to be spent under this scheme.

Table 6.18.

Fisheries Scheme for Drinking Water

Sl. No.	District	Name of scheme	No. of families benefited	Estimated amount
1	Kottayam	Thottuvakku-koyichira	100	115875
		Kottachira (8ward)	200	7,64,500
2	Kannur	Chalil gopalapetta	200	11,00,000
3	Kasargode	Bekkal-Uduma	100	9,00,000
		Pallikara	100	9,60,000
		Keezhur-Chemmanad	100	10,00,000
		Total	800	48,40,375

Source; Proceedings of the directorate of fisheries Kerala, Thiruvananthapuram Order No.NI - 1668/05 dated 22/11/05.

Chart 6.16. Fisheries Scheme for Drinking Water

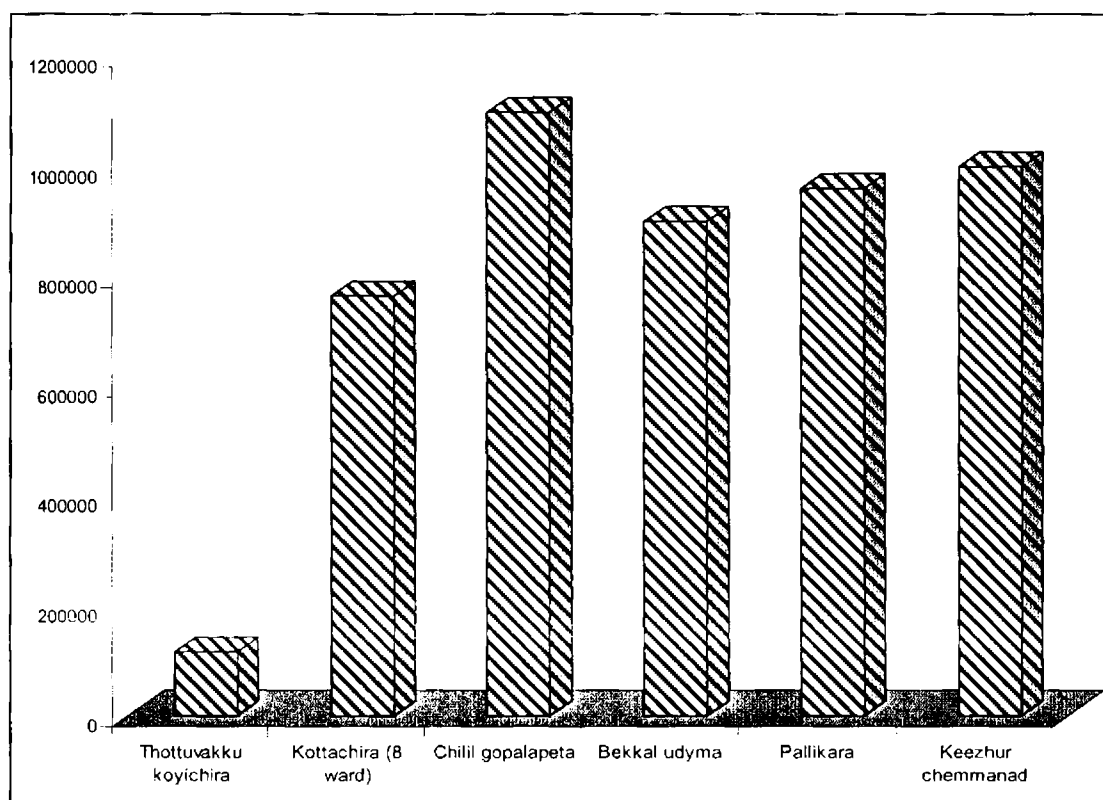


Table 6.18 and chart 6.16 show the number of families benefited by the scheme of fisheries department implemented in the districts of Kottayam, Kannur and Kasargode. But it is not known how a district like Kottayam, which does not have any coastal area obtained benefits with an estimated cost of Rs. 8,80,375 for 300 families.

Even though there was an order (Order No. N1-1668/05 dt 11.1.2007) by the Directorate of Fisheries to issue an amount of Rs.20 lakhs, only Rs. 16.65 lakhs was released to the villages in Kannur and Kasargode districts. The allotment of money to Kottayam and the delay in releasing the money to Kannur and Kasargode shows how things are going on in the fishery sector. Because of these state of affairs, those who are to get benefit fail to get it, and those who are not eligible get it.

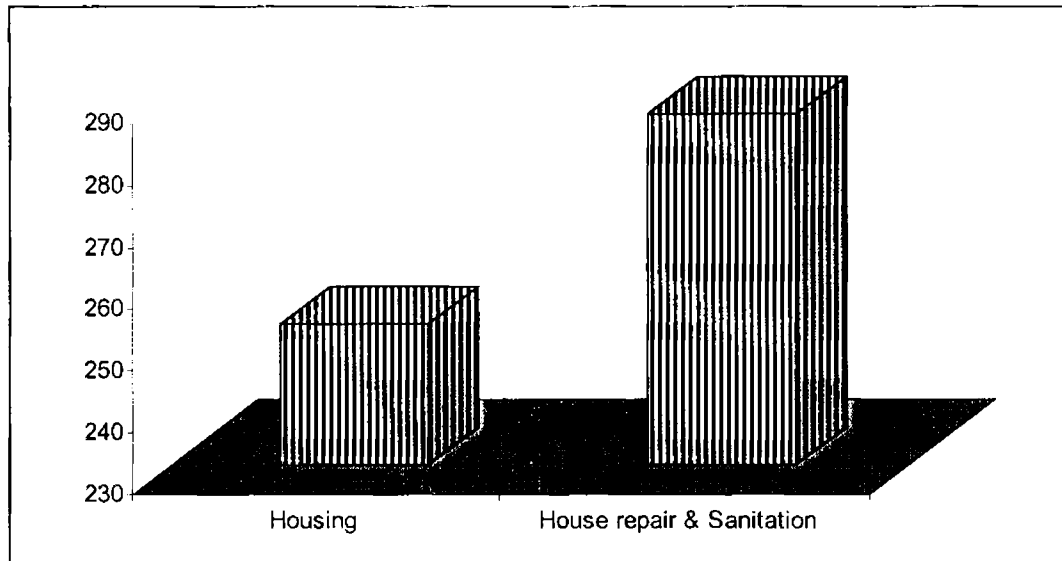
As per the proceedings of the Directorate of Fisheries, Order No. N1/19087/04 dated 28/8/06, an amount of Rs. 15 crores were allotted as one time additional Central Assistance for the year 2004-05 for taking up creation of basic infrastructure in fisheries villages. This project included housing, sanitation and drinking water facilities. An amount of Rs. 7.6 crores were distributed during 2005-06 for the implementation of the housing under the special Package scheme. The Government has also released Rs. 7.4 crores during 2006 as the balance amount of additional central assistance. The Government have released an amount of Rs. 540 lakhs for Housing, House repair and sanitation under the Special Package Scheme as detailed in Table 5.19 and chart 6.17.

Table 6.19.**Housing, House Repair and Sanitation under Special Package****Scheme.**

Disctrict	Housing (Unit Rs. 40,000/-)		House repair & Sanitation (Unit Rs. 20000/-)	
	Unit Amount Sanctioned (Lakhs)	Rs.	Unit amount sanctioned (Lakhs)	Rs.
Thiruvananthapuram	160	13.00	164	32.80
Kollam	375	37.50	837	54.40
Pathanamthitta	10	---	8	0.60
Alappuzha	1320	202.50	392	78.40
Idukki	8		----	---
Kottayam	20		100	20.00
Ernakulam	250		246	49.20
Thrissur	25		49	9.80
Palakkad	10		---	---
Malappuram	60		100	20.00
Kasarkode	12		30	6.00
Kozhikode	200		50	10.00
Kannur	50		29	5.80
Total	2500	253.00	1500	287.00

Source: Order No. N1/19087/04 Dated-28/8/06, director of fisheries Kerala.

Chart 6.17. Housing, House Repair and Sanitation under Special Package Scheme.



This special package was meant for fishermen families. Funds were allocated under this scheme for housing, house repair and sanitation. Of these A large portion (Rs. 202.50 lakhs) was allocated for the districts of Alappuzha, Thiruvananthapuram and Kollam. But it is very interesting to see that the funds were also allocated to districts like Pathanamthitta and Kottayam which are not fishery districts, since they have no coastal region. These districts got allocation of 48 units, but no allocation of funds released till date.

Out of 1500 the units, 100 units were allotted for Kottayam district alone. Out of the Rs.287 lakhs sanctioned, Rs.20 lakhs was allocated to Kottayam district and another Rs.60,000/- for Pathanamthitta district.

Fishery Dispensaries/ Hospitals.

Health facilities are not scarce in fishing villages. In spite of this, the state government had sanctioned 37 fishery dispensaries in the coastal villages. But only twenty-seven buildings for dispensaries were constructed under the scheme. The status of dispensaries is given in table 6.20.

Table-6. 20. Dispensaries

District	Village	Condition of Building	Whether functioning
Thiruvananthapuram	1. Edava	Permanent	Yes
	2. Thiruvallom	Temporary	Yes
	3. Puthukurichi	Permanent	Yes
Kollam	4. Paravoor	Permanent	Yes
	5. Alappad	Permanent	Yes
Alapuzha	6. Thottappally	Permanent	Yes
	7. Pallithode	Permanent	Yes
	8. Arattupuzha	Work started	No
Ernakulam	9. Pallana	Not started	No
	10. Nayarambalam	Permanent	Yes
	11. Puthuvaipu	Temporary	Yes
	12. Chellanam	Permanent	Yes
Thrissur	13. Karimpuram	Permanent	Yes
	14. Nattika	Permanent	Yes
	15. Punnayoor	Permanent	Yes
	16. Andathode	Permanent	Yes
	17. Edavilangu	Permanent	Yes
	18. Koolimuttom	Permanent	Yes
Malappuram	19. Vallikunnu.	Permanent	Yes
	20. Veliankoe	Permanent	Yes
	21. Kootayi	Permanent	Yes
	22. Parappanangadi	Not started	Yes
	23. Thevarkadappuram	Permanent	Yes
Kozhikode	24. Kottakkal	Permanent	Yes
	25. Madappally	Permanent	Yes
	26. Badagara	Temporary	Yes
	27. Ezhukudikkal	Not started	No
	28. Puthiyappa	Not started	No
	29. Ayanikkal	Not started	No
Kannur	30. Ettikulam	Permanent	Yes
	31. Muzhuppilangadu	Permanent	Yes
	32. Andoor	Temporary	Yes
Kasargode	33. Anjanoor	Permanent	Yes
	34. Arikady	Permanent	Yes
	35. Thaikadappuram	Permanent	Yes
	36. Mavilakadappuram	Permanent	Yes
	37. Valiyaparamba	Permanent	Yes

Source: Development of Social Infrastructure Facilities in Fisheries Sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12.

Fishery dispensaries are functioning fairly well, and are used by a large number of fishermen. In many cases, the Public Health department has upgraded the dispensaries to Primary Health Centers and provided more facilities.

Fish Markets.

The state government has implemented a scheme for the renovation of retail markets owned by the local bodies. The scheme envisaged provision for potable water, drainage, selling platforms, etc.; and an amount of Rs. 4 lakhs per market was granted to the local bodies for implementing this scheme. The details of the number of markets sanctioned and release of funds are furnished in table 6. 21 and chart 6.18.

Table- 6.21.

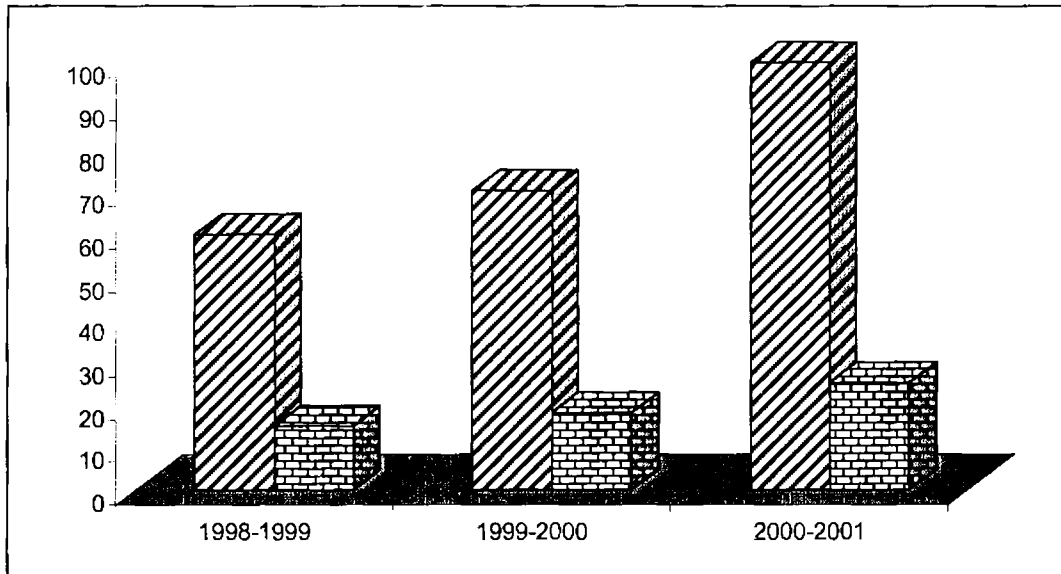
Fish Markets in Kerala

Year	Amount Allotted (Rs. In Lakhs)	No. of markets sanctioned
1998-1999	60	15
1999-2000	70	18
2000-2001	100	25
Total	230	58

Source: Development of Social Infrastructure Facilities in Fisheries Sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12.

Chart - 6.18

Fish Markets in Kerala



The constructions of 8 markets have completed and another 8 are under various stages of construction.

Guide lights.

The guide lights are very useful to fishermen to return to the place of destination during the night. This facility is now provided as part of landing centers along the coast.

The scheme for the construction of 16 guide lights during 1960's was initiated through the public works department. But due to defective design, most of them functioned only for a short period. Hence a new design was adopted, and ten more guide lights were constructed; but they are also not functioning properly.

Education.

Department of fisheries started regional fishermen Technical High schools in various districts exclusively meant for children of the fishermen. The details of these are furnished in Table 6. 22 and chart 6.19.

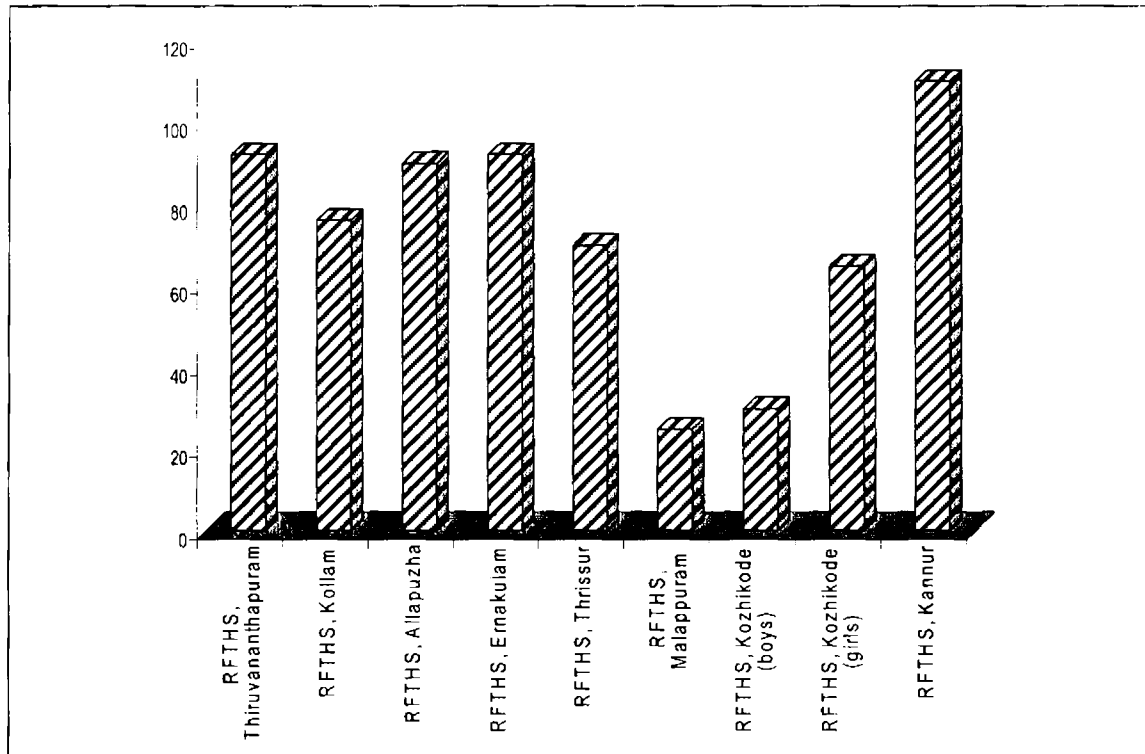
Table. 6.22.

Regional Fisheries Technical High Schools

Sl. No.	Name of schools and districts	Year of commencement	Location	strength
1	RFTHS, Thiruvananthapuram	1968	Valiyathura	92
2	RFTHS, Kollam	1984	Karunagappally	76
3	RFTHS, Allapuzha	1984	Arthungal	90
4	RFTHS, Ernakulam	1968	Thevara	92
5	RFTHS, Thrissur	1981	Chavakkad	70
6	RFTHS, Malappuram	1981	Tanur	25
7	RFTHS, Kozhikode (boys)	1981	Beypore	30
8	RFTHS, Kozhikode (girls)	1994	Koyilandy	65
9	RFTHS, Kannur	1968	Azheekal	110

Source: Development of Social Infrastructure Facilities in Fisheries Sector, Kerala Calling, 2000, Velayudhan T.D. October 2000, Volume 20, Number 12.

Chart. 6.19 Regional Fisheries Technical High Schools



The regional Technical Schools are meant for the children of fishermen, who have passed the seventh standard. All these schools have free boarding and lodging facilities. Boarders are given free tuition during early morning and late evening hours. Fisheries science is taught as a special subject over and above the syllabus for high school students. Each school is provided with TV and VCR, to improve the general awareness of students. These schools always produce excellent results in examinations. This is an indication to the fact that if proper environment and facility are provided, students from fishermen community can be on par with their counterparts from other communities.

Educational concessions for fishermen students

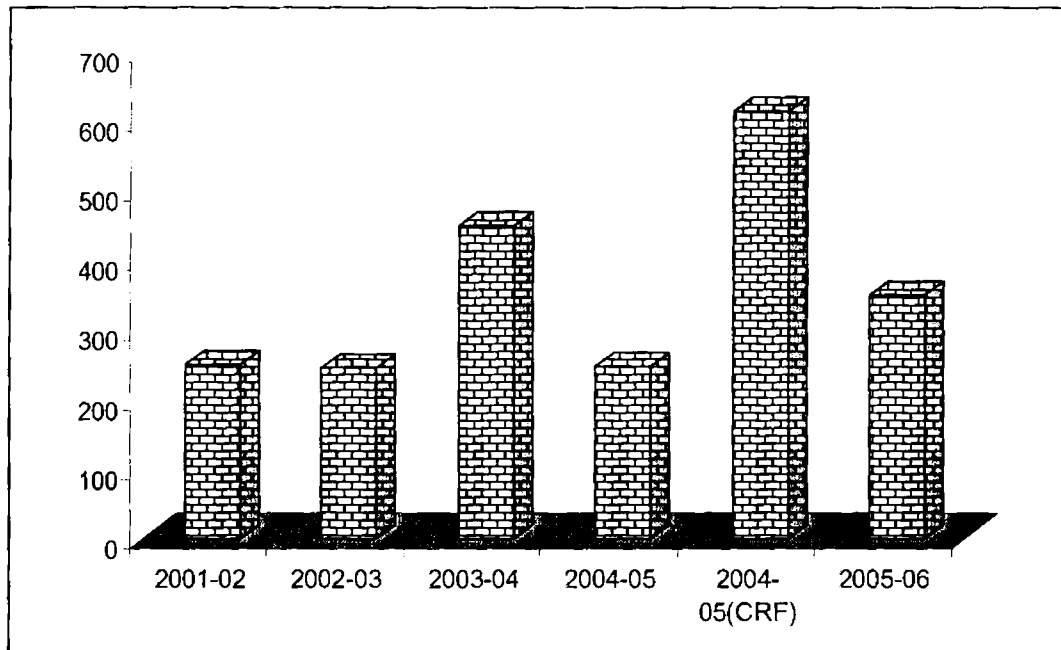
Educational concession is granted to the children of registered fishermen since 1989 as per G..O. (MS) No. 12/89/F&PD dated 13/3/1989. Students of Hindu fishing community have to avail the concessions through the Scheduled Caste Development Department. They are not granted concession through the Department of Fisheries. More than 60,000 students are enjoying educational concessions. There is no difference in the amount, the rules and proceedings relating to the distribution of educational concessions granted to children of fishermen and those for scheduled Caste for pre-matriculation, matriculation and post-matriculation studies. But the students of Regional Fisheries Technical Schools are eligible only for annual lump- sum grant, since they are getting free boarding and tuition facilities. Fishermen children studying in self financing institutions and autonomous institutions are given similar concessions as in the government institutions from the year 2006 onwards.

Table 6.23.
Allotment and Expenditure.

Sl.No.	Year	Allotment (Rs. lakhs)	Expenditure (RS. Lakhs)
1	2001-02	250	250.00
2	2002-03	250	245.00
3	2003-04	450	450.00
4	2004-05	250	248.00
5	2004-05(CRF)	626	613.88
6	2005-06	350(450 requirement)	349.40

Source: Department of Fisheries, 2006.

Chart 6.20 Allotment and Expenditure.



Matsyafed, the apex body for the welfare of fishermen and the development of co-operatives implement schemes meant for the development of marine fisheries in the state. It started functioning from November 1984 with the twin objectives viz.,(i) promotion of fish production, processing and marketing in the artisanal sector and (ii) improving the well being and quality of life of the fishermen. Matsyafed has seven district offices and 81 village fishermen welfare and development co-operatives with a membership of 68,419 in 1993 which now increased to 1,19,406. (Economic Review. 1993). The details of the membership of fishermen in Fisheries Cooperatives in 9 fishing villages are given in table 6.24 and chart 6.21..

Table 6.24

Membership in Fisheries Cooperatives

District	Membership in cooperatives	Total population	Percentage
Thiruvananthapuram	32659	143436	23
Kollam	10557	43210	24
Alappuzha	24819	101341	24
Ernakulam	10267	42069	24
Thrissur	6507	34078	19
Malappuram	8496	79858	11
Kozhikode	13211	87690	15
Kannur	5385	36686	15
Kasargode	7505	33866	22
Total	119406	602234	20

Source: Tabulated from Fisheries census 2005

Chart 6.21

Membership in Fisheries Cooperatives

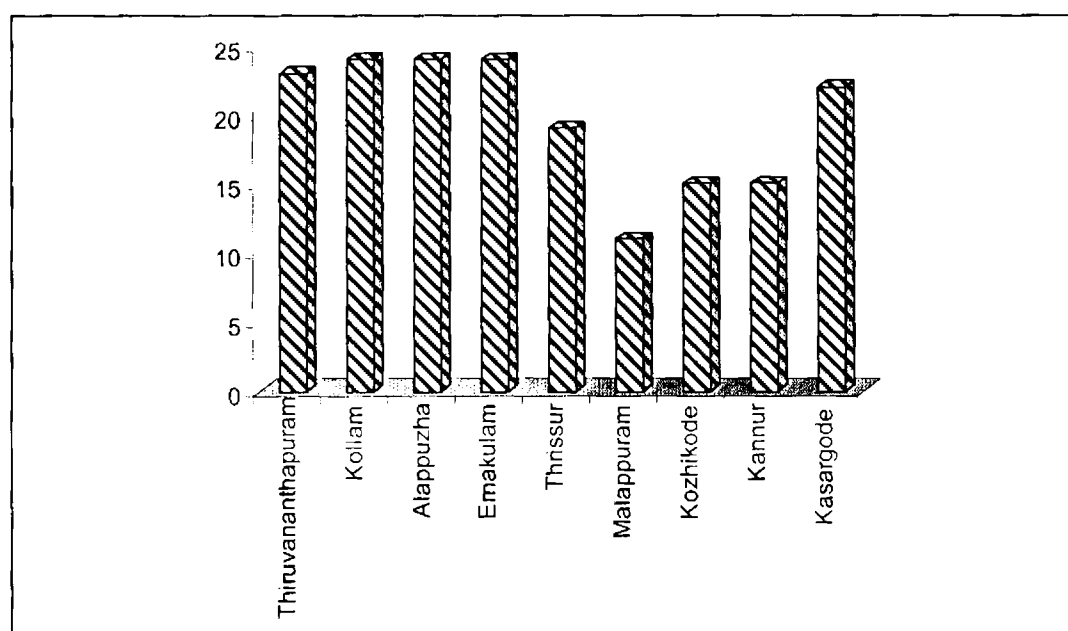


Table 6.24 and chart 6.21 give information regarding the membership of fishermen in fisheries cooperative societies in the various fisheries districts. Thrissur and Kozhikode find the minimum number of enrollment in Malappuram district followed. These districts along with Kannur district have an average membership which is below the state average of 20 percent.

The challenge before the state and the community is to enhance the flow of funds and implement new promotional and protective measures. It requires more imaginative and dedicated political will and leadership at the level of the state as well as the community.

Matsyafed assures timely assistance for replacement of fishing inputs and working capital requirements of the fisher -folk. Matsyafed also provides working capital assistance to the primary co-operatives for strengthening the beach level auction.

Table 6.25 and chart 6.22 explain the details regarding the release of funds by NCDC to various sectors including fisheries.

Table. 6.25.
NCDC Funds

Year	Fisheries sector	Hand weave sector	Coir sector	SC/ST cooperatives	Total	Percentage to fisheries sector
1962-63 to 2000-01	88.92	15.72	48.75	2.18	155.57	57.16
2001-02	16.59	0.72	0.09	-	17.40	95.34
2002-03	5.63	1.11	1.23	0.09	8.06	69.85
2003-04	15.21	-	-	-	15.21	100.00
2004-05	14.89	0.05	1.44	0.15	16.53	90.08
2005-06	5.49	-	-	0.12	5.61	97.86

Source: Economic Review 2006

Chart 6.22. NCDC Funds Fisheries Sector

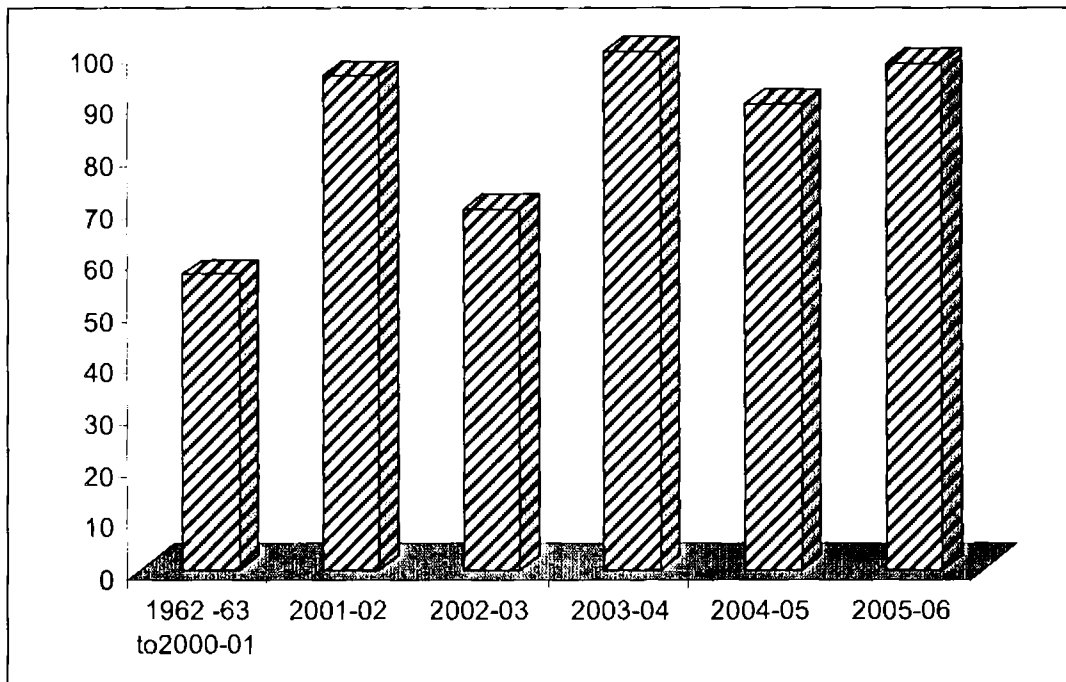


Table 6.25 chart 6.22 reveal that the national agencies were giving more financial aid to the fisheries sector vis-à-vis sectors such as

hand weave, coir, and SC/ST Cooperatives. There was a tremendous increase in the total amount disbursed by the Corporation for the fisheries sector. From the year 1962 to 2001, Rs 88.92 crores were released to fisheries sector and that accounted 57.16 percent of the total funds released for hand weave sector, coir sector and SC/ST cooperatives. Since then, above 90 percent of the funds were released to fisheries sector as compared to the other three sectors. Moreover, in the year 2003-2004, 100 percent disbursement was made to fisheries sector. From the table 5.21 we can see that the share of fisheries sector increased from 57.16 percent during 1962-2001 to 97.86 percent during 2005- 2006.

Table 6.26 and chart 6.23 give information regarding the NCDC assisted Integrated Fisheries Development Project (1998-99) under Phase 1, 11, and 111.

Table 6.26.
IFDP under Phase 1, 11, and 111

(Rs. In Lakhs)

	Physical	Financial	Percentage to Total Amount	Percentage to total number
Phase - 1	4577	555.84	10.34	14.04
Phase -11	7223	1034.28	19.24	22.16
Phase - 111	20795	3785.30	70.42	63.80
Percentage increase from Phase 1 to Phase 111	454.34	681.00		
Total	32595	5375.42	100	100

Source: Directorate of Fisheries, Economic Review 1999

Chart 6.23. IFDP under Phase 1, 11, and 111

(Rs. In Lakhs)

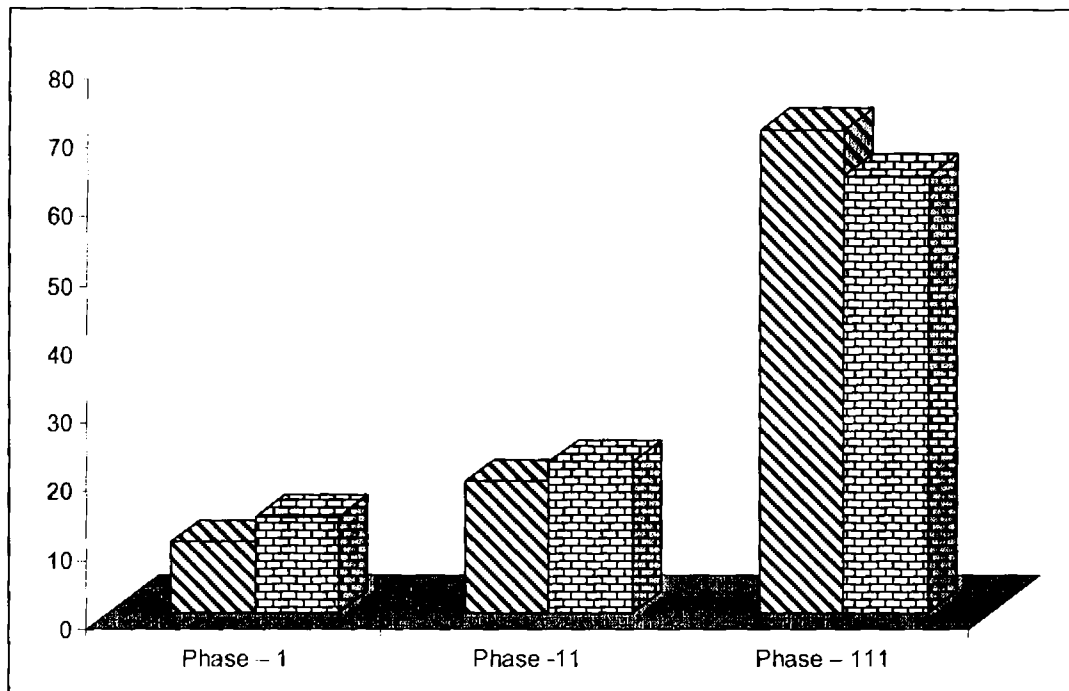


Table 6.26 and chart 6.23 show that the number of beneficiaries of the project under Phase -1 was 4577 and the number increased to 20795 during phase -111. The financial outlay also shows tremendous increase. It increased from Rs.555.84 lakhs in Phase-1 to Rs.3785.3 lakhs in Phase 111. The increase was of 70.42 percent over the Phase-1 expectation.

The phase-1 of the project was completed during 90-91. Phase -1 covered 23 primary cooperatives Phase-1 of the project enabled 3158 fishermen to become owners of fishing inputs uplifting the matching grant provided by the central and state governments, Phase-11 of the project benefited 6659 fishermen. The third phase of the project 8223 benefited fishermen (Er-1995).

Phase IV of the project is expected to cost of Rs. 210 crores. It is also expected to benefit 75 percent of the small-scale fishermen (1.25 lakhs) and they will be brought under the co-operative fold.

Integrated Fisheries Development Project (IFDP)

The Integrated Fisheries Development Project was formulated and implemented with the assistance of the National Cooperative Development Corporation (NCDC) which was established in 1985. The objectives of the IFD project are to make the fishermen owners of fishing units and eliminate exploitation by middlemen at all levels Matsyafed took up the distribution of fishing inputs at subsidized rates and at very low rates of interest to groups of fishermen The distribution of inputs were effected through primary cooperatives. The inputs included working capital, marketing infrastructure, supply of fuel and other fishing accessories.

The details of Integrated Fisheries Development Projects implemented are given in table 6.27 and chart 6.24.

Table.6.27.

IFDP Projects

Sl. No	Project	Period of implementation	Block Cost Rs. in lakhs
1	Integrated Fisheries development project Phase-1	1985 – 1991	555.84
2	Integrated Fisheries development project Phase-11	1987 – 1994	1034.28
3	Integrated Fisheries Development Project Phase-III	1991 – 1997	4228.68
4	Integrated Fisheries Development Project 1998	1998 – 1999	1989.75
5	Integrated Fisheries Development Project 1999	1999 – 2000	1690.00
6	Integrated Fisheries Development Project 2000	2000 – 2001	1634.85
7	Integrated Fisheries Development Project 2001	2002 – 2003	2702.00
8.	Project Matsya -2004-05	2004 – 2005	2458.00

Source: Matsyafed.org

Chart 6.24. IFDP Projects

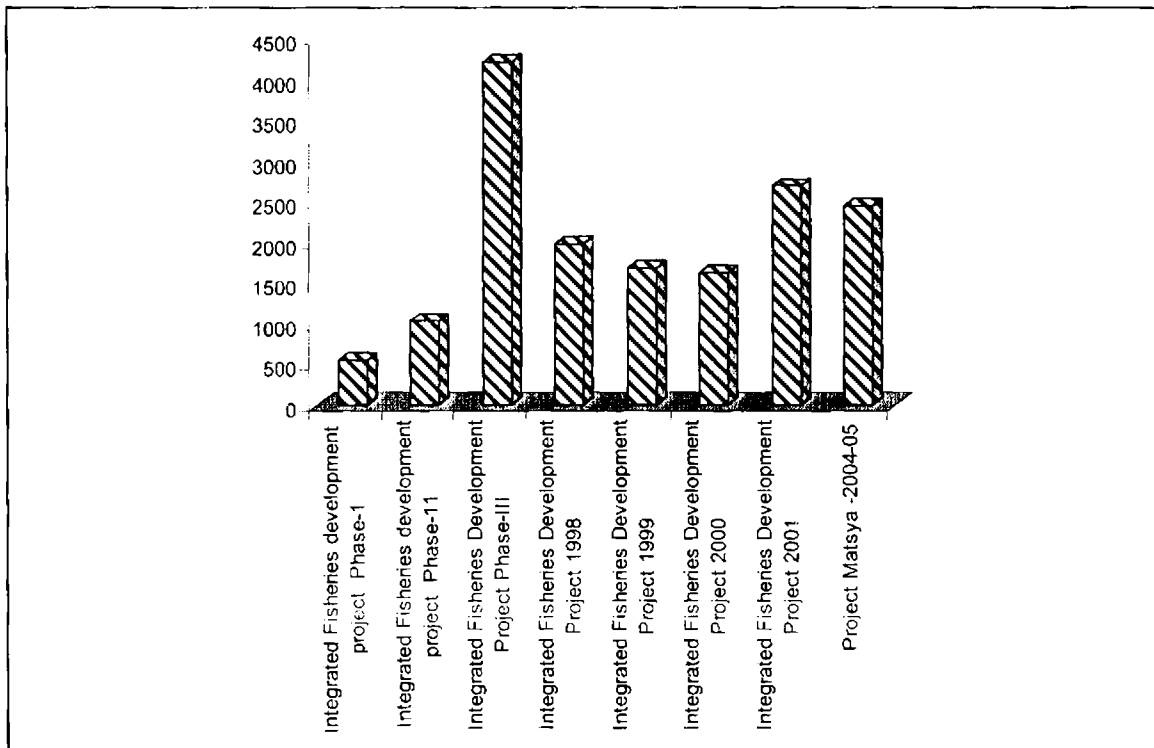


Table 6.27 and chart 6.24 give information regarding the projects implemented under IFDP FROM 1985 TO 2005. Under Phase-1 of the project an amount of Rs. 555.84 lakhs were spent. Under Phase-II, the amount spent increased to Rs. 1034.28 lakhs and under Phase-III, the amount spent further increased to Rs. 4228.68 lakhs. From 1998-1999 to 2002-2003 the amount spent almost doubled (Rs. 8016.60 lakhs) During 2000-2005 the Matsyafed spent Rs. 2458 lakhs on different schemes for the benefit of the fisherfolk.

Employment generation schemes-Schemes with financial assistance of NBCFDC

Matsyafed has been implementing schemes since 1995-96 for assisting the fisher folk with the assistance of National Backward Classes Development & Finance Corporation (NBCFDC) Persons belonging to any one of the notified backward classes whose annual family income is below double poverty line (BDPL) are eligible to be assisted under this scheme.

Matsyafed has so far extended an estimated assistance worth Rs. 1312.72 lakhs to an estimated 7169 beneficiaries.

Table 6.28 imparts details regarding total amount of assistance and the number of beneficiaries under of the schemes.

Table .6.28.

NMDC Schemes

Sl.No.	Year	Total assistance (Rs. in lakhs)	Number of beneficiaries assisted
1	1998-99	170.800	690
2	1999-2000	89.120	471
3	2000-01	133.128	593
4	2001-02	223.600	705
5	2002-03	55.882	163
6	2003-04	55.873	189
7	2004-05	55.000	131
	TOTAL	839.285	3173

Source: Matsyafed.org

Under the NMDFC scheme, an amount of Rs. 839.285/- was given as assistance from the year 1998 to 2005 and that benefited 3173 persons. There were fluctuations in the amount of assistance granted and the number of persons benefited from the scheme. The details can be ascertained from the table.

Reference:

- 1) *Filling the protection gap: The role of minimum pensions and welfare benefits Non-contributory and social assistance pensions in Argentina, Brazil, Chile, Costa Rica and Uruguay. Team for South America International Labour Office Santiago*
- 2) *Economic Review- various issues*
- 3) *<http://www..Matsyafed .org>*
- 4) *Annual reports of Matsyaboard*
- 5) *Department of Fisheries-Fisheries at a glance*

Chapter 7

*Extend Of Awareness Of
Social Security And Welfare
Schemes Of Government*

CHAPTER – 7

EXTENT OF AWARENESS OF SOCIAL SECURITY AND WEFLARE SCHEMES OF GOVERNEMNT

After discussing the social security and welfare measures implemented for the benefit of the small-scale fishery sector we now proceed to discuss the extent of awareness about the schemes among the fishery folk.

A developing state can conceive innovative welfare and development measures to address the issues of poverty and livelihood security. Kerala, an important maritime state of India having a fishery population of 6.02 lakhs of people is striving to achieve its planned objectives by providing welfare and livelihood security measures for their downtrodden masses. With this end, in view, the government of Kerala is implementing policies for the socio-economic development of the fisher folk.

In chapter 6 we have seen that a number of schemes were implemented by the government through the agencies like fisheries department, Matsyaboard, and Matsyafed. These agencies have well defined objectives to achieve while formulating various schemes of social security and welfare. How far these objectives are materialized by way of awareness and utilization is analysed in this chapter.

7.1. Welfare Activities of Agencies of Government

The following table 7.1 and chart 7.1 give the percentage of registered fishermen in the districts under study.

Table. 7.1

Registered Fisherman

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Yes	78	31	83	34	87	35	248	83
No	22	42	17	33	13	25	52	17
Total	100		100		100		300	100

Source: survey data

Chart 7.1 Registered Fisherman

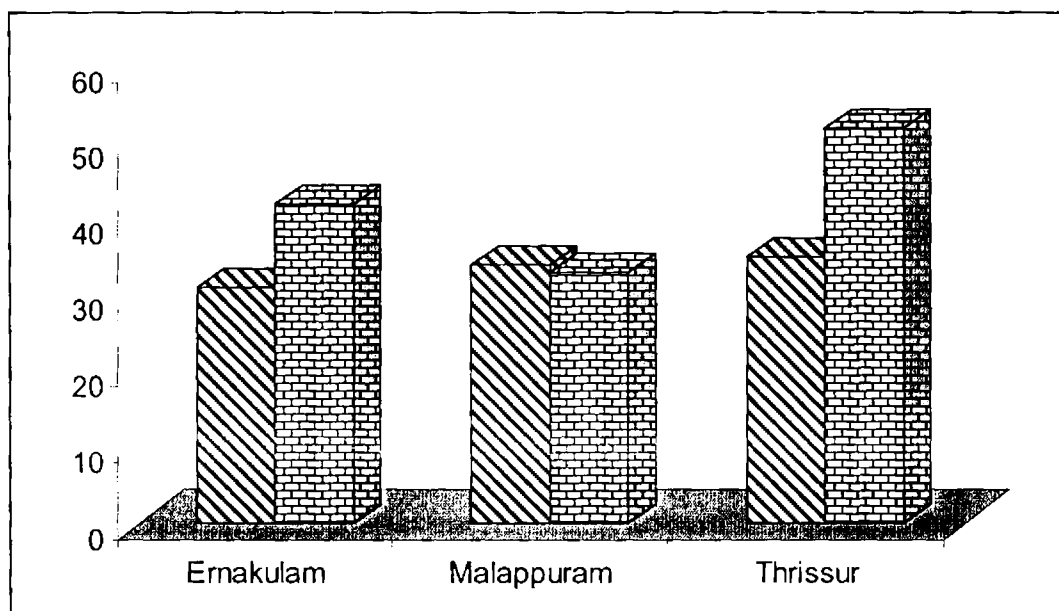


Table 7.1 and chart 7.1 show that of the 83 percent respondent fishermen registered, 31 percent of respondent fishermen are in Ernakulam, 34, in Malappuram and 35, in Thrissur. There are 17 percent respondents fishermen unregistered and of these, 42 percent is in Ernakulam, 33 percent in Malappuram and 25 percent in Thrissur. Some of the unregistered respondents opined that they are not expecting any benefit; two of them told that they cancelled registration because of discrimination at the time of identifying beneficiaries. No ration card or pattayam for land to prove identity for registration was the reason for another two to leave. One of them was aware of the procedure for registration but age crossed the bar.

7.2. Awareness of the Fisherfolk

The welfare activities of the fisheries department include Savings-cum- Relief Scheme, National Fishermen Welfare Fund (NFWF) Housing, DANIDA Model Sanitation, Theerajyothi electrification, Group Insurance, etc.

Table 7.2 and chart 7.2 show the nature of awareness of the fisherfolk regarding the schemes of the government implemented through like Fisheries Department, Matsyaboard and Matsyafed.

Better awareness is found among the fisher folk in Thrissur district as compared to Ernakulam and Malappuram districts. Out of 43 percent respondent fishermen in the study area, 19 percent is in Thrissur, 15 percent in Ernakulam and 9 percent, in Malappuram. The lowest awareness is in the case of respondents of Malappuram. On an average, 43 percent of the respondents are aware of the schemes. That means more than half of the sample respondents are unaware of the government Programmes.

Table 7.2

Awareness about Welfare Schemes

Response	Thrissur		Ernakulam		Malappuram		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Aware	55	19	46	15	28	9	129	43
Not aware	45	15	54	18	72	24	171	57
Grand Total	100		100		100		300	100

Source: Survey data

Chart. 7.2 Awareness about Welfare Schemes

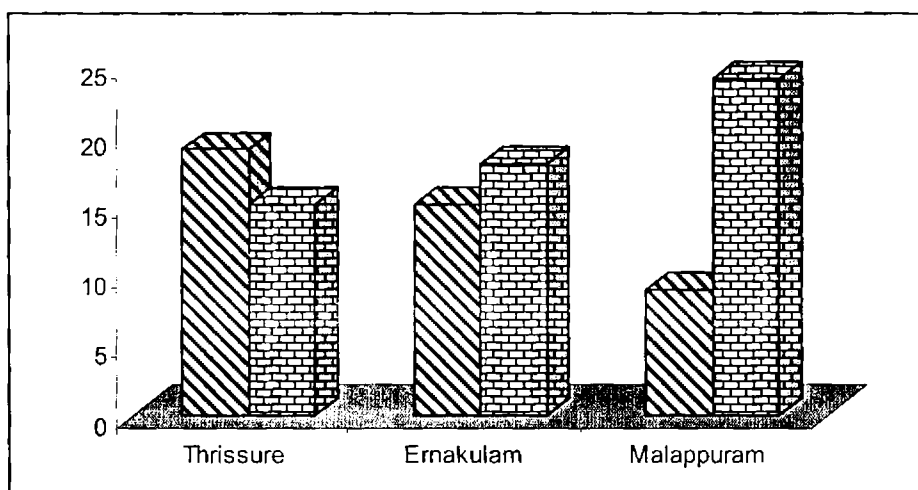


Table and chart 7.3 give information regarding the responses of the respondents regarding assistance received other than saving-cum-relief scheme.

Table 7. 3

Assistance Other than Saving-cum-Relief

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Received	31	47	13	19	23	34	67	22
Not received	69	30	87	37	77	33	233	78
Total	100		100		100		300	100

Source: survey data

From the table 7.3, it is clear that majority of the respondent fisher folk are not received any benefit from the government other than saving cum relief. Twenty two percent of the respondents received the benefit whatever may be its nature and their number is more in Ernakulam compared to other districts. Of these, in Ernakulam district, 47 percent of the respondent beneficiaries received some of the benefits, 34 percent in Thrissur and 19 percent in Malappuram. The benefits are received by those fisher folk who have received the benefits earlier, and who have access to the fishery offices or some connection with politicians or fisher folk leaders.

7.3. Facilities Provided by Fisheries Department

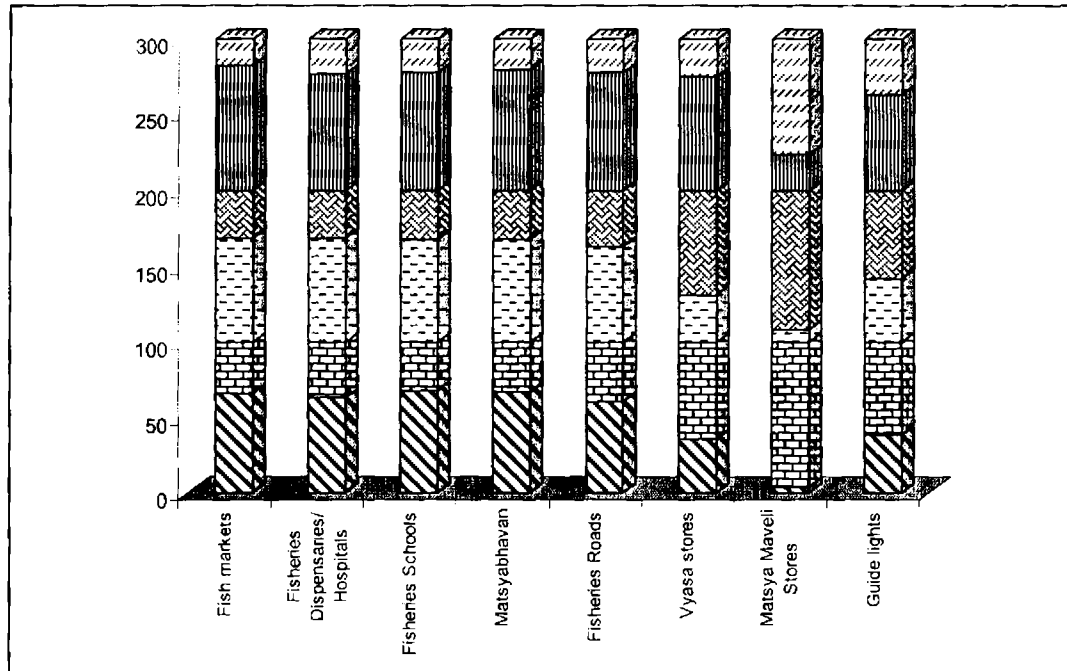
Table 7.4 and chart 7.3 provide information regarding awareness of fisherfolk about the functioning of facilities provided by fisheries department for their well-being.

Table 7.4
Awareness about Facilities

Awareness	Ernakulam		Malappuram		Thrissur	
	Yes	No.	Yes	No.	Yes	No.
	Percent	Percent	Percent	Percent	Percent	Percent
Fish markets	66	34	69	31	82	18
Fisheries Dispensaries/ Hospitals	63	37	69	31	77	23
Fisheries Schools	68	32	68	32	78	22
Matsyabhavan	67	33	68	32	80	20
Fisheries Roads	61	39	63	37	78	22
Matsya stores	36	64	31	69	75	25
Matsya Maveli Stores	4	96	8	92	24	76
Guide lights	39	61	42	58	63	37

Source: Survey Data

Chart 7.3 Awareness about Facilities



Sixty one to sixty eight percent of fisherfolk in Ernakulam district are aware of the functioning of fish markets, fisheries dispensaries or hospitals, fisheries schools, Matsyabhavan and fisheries roads. In Malappuram, sixty three to sixty nine percent are aware of these facilities. It is seventy-eight to eighty two percent in Thrissur. Thirty nine to thirty six percent are aware of guide lights and Vyasa stores in Ernakulam. It is thirty-one to forty-two percent in Malappuram and sixty-three to seventy five percent in Thrissur. Only four percent is aware of Matsya Maveli Stores in Ernakulam, eight in Malappuram and 24 in Thrissur. The highest awareness is found in Thrissur.

7.4. Schemes of Fisheries Department

Saving-cum-Relief Scheme

Table 7.5 imparts information relating to membership of the fisherfolk who can avail the saving-cum relief scheme.

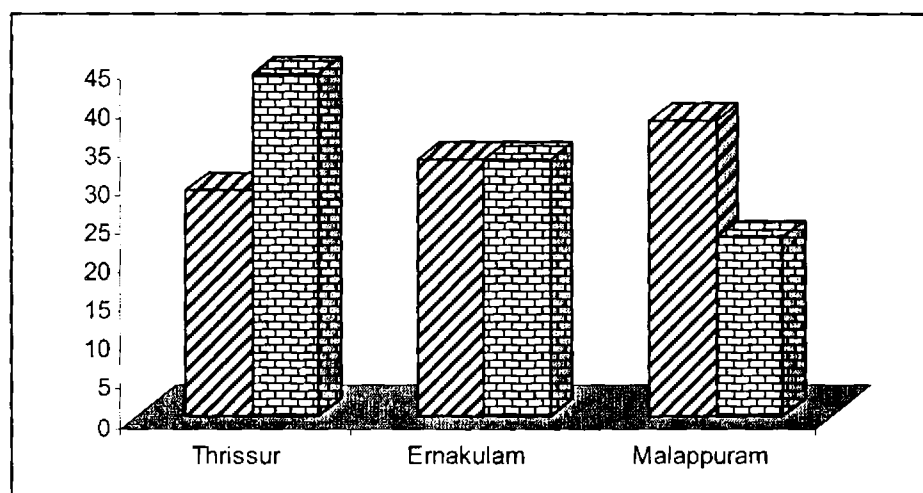
Table 7.5

Membership under Saving -cum-Relief Scheme

Response	Thrissur		Ernakulam		Malappuram		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Member	65	29	74	33	82	38	221	74
Not a member	35	44	26	33	18	23	79	26
Total	100		100		100		300	100

Source: Survey Data

Chart 7.4 Membership under Saving -cum-Relief Scheme



The most popular scheme among the respondent fisher folk is saving-cum-relief scheme under which the fisher folk are provided with

assistance in lean periods. Table 7.5 states that 74 percent of the respondents are availing benefits under the scheme. It consists of 38 percent in Thrissur, 33 percent in Malappuram and 29 percent in Ernakulam. Around 26 percent of the respondent fisherfolk is not part of the scheme, which gives sustenance on lean months.

7.5. Enhancing Contribution

Moreover, they are very much interested to enhance their contribution of sustenance in future. As per table 7.6 and chart 7.5, willingness of the respondent fisher folk to enhance the amount is the highest in Thrissur district. About 69 percent of the respondent fisher folk are very much interested to increase their contribution and there by get a much better contribution from government. The amount now available is at the rate of Rs. 300 and too little to maintain minimum livelihood facilities. The response in favour of enhancement in Thrissur is 29 percent, Malappuram 40 percent and Ernakulam 31

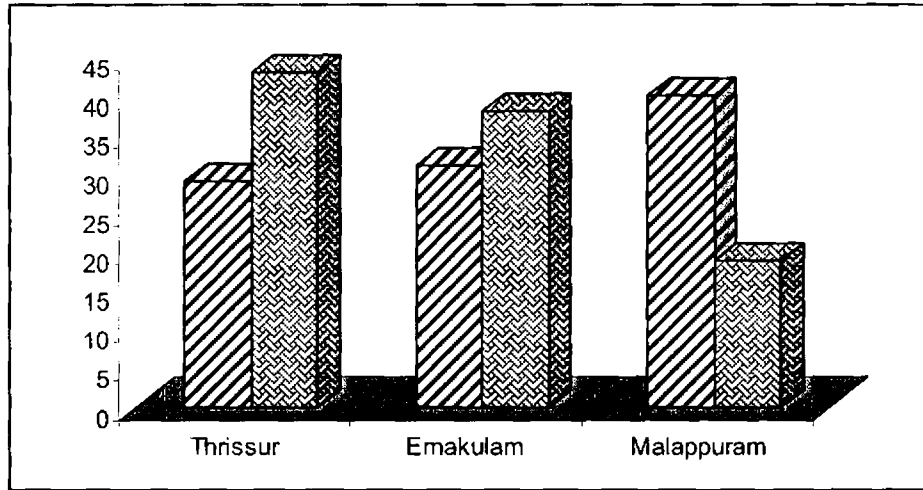
Table 7.6

Contribution under Saving-cum Relief Scheme

Response	Thrissur		Ernakulam		Malappuram		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Willing	60	29	65	31	82	40	207	69
Not willing	40	43	35	38	18	19	93	31
Total	100		100		100		300	100

Source: survey data

Chart 7.5 Contribution under Saving-cum Relief Scheme



7.5. Schemes Available to Fisherfolk

Table 7.7 and chart 7.6 give information regarding the availability of schemes and details of the beneficiary respondents .During the last five years, they have availed some of the benefits of the schemes. For housing, there are 12 respondents and nine respondents receive assistance for electrification. Sanitation facilities are provided to fisher folk families. For the marriage of daughters, six respondents availed assistance. In Thrissur and Malappuram, no respondents receive financial assistance on the death of dependants. For the marriage of the daughters, no beneficiary respondent in Malappuram district.

Table 7.7

Schemes Aailed

Response	Thrissur		Ernakulam		Malappuram		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Housing	4	33.33	4	33.33	4	33.34	12	05.4
Sanitation	3	60.00	2	40.00	0	0.00	5	02.4
Electrification	4	44.44	1	11.12	4	44.44	9	04.1
Marriage of daughter	3	25.00	3	60.00	0	0.00	6	2.7
Death of dependents	0	0.00	1	100	0	0.00	1	00.5
Education	8	61.54	3	23.08	2	15.38	13	5.9
Total	82	37.10	65	29.42	74	33.48	221	100.0

Source: survey data

Chart 7.6 Schemes Aailed

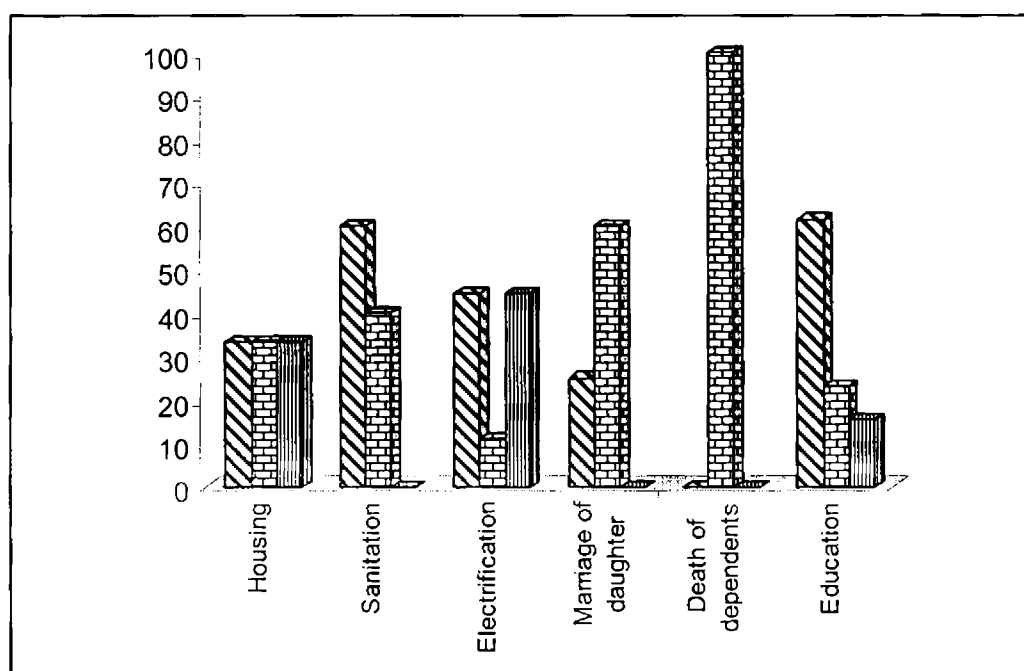


Table 7.7.and chart 7.6 disclose the details of schemes availed by respondents fishermen during the last five years. Out of he 221 respondent beneficiaries, 37.10 percent is from Ernakulam District, 33.48 percent from Thrissur and 29.42 percent from Malappuram .Twelve respondents i.e., 5.43 percent of total respondent beneficiaries in Thrissur, Ernakulam and Malappuram, 33 percent each received housing scheme benefits. Five respondents i.e., 2.26 percent of total respondent beneficiaries received benefits under sanitation scheme. Out of this, 60 percent from Ernakulam and 40 percent from Thrissur received benefits. Malappuram district has no respondent beneficiaries for sanitation scheme. 4.07 percent respondent beneficiaries enjoyed electrification scheme. 44.44 percent each in Ernakulam and Thrissur districts and 11.12 percent in Malappuram district have availed this scheme. The scheme for marriage of daughters is availed fifty percent of respondent fishermen of Ernakulam and Thrissur district out of 2.71 percent of total beneficiary respondents. Only 0.45 percent of respondent beneficiaries received benefits of death of dependents and it is from Malappuram district. 5.88 percent received education benefits. Out of this, 61.54 percent from Ernakulam, 23.08 from Thrissur and 15.38 percent of Malappuram received benefit.

7.6. Activities of Matsyaboard

Table 7.8

Awareness on Various Schemes

Awareness	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
All the schemes	54	41	19	14	59	45	132	44
Almost all schemes	25	28	45	50	19	21	89	29
Some of the schemes	5	16	17	55	9	29	31	10
Two or three schemes	5	45	6	55	0	0	11	3
Not at all	11	30	13	35	13	35	37	14
Total	100		100		100		300	100

Source: survey data

Diagram 7.7 Awareness on Various Schemes

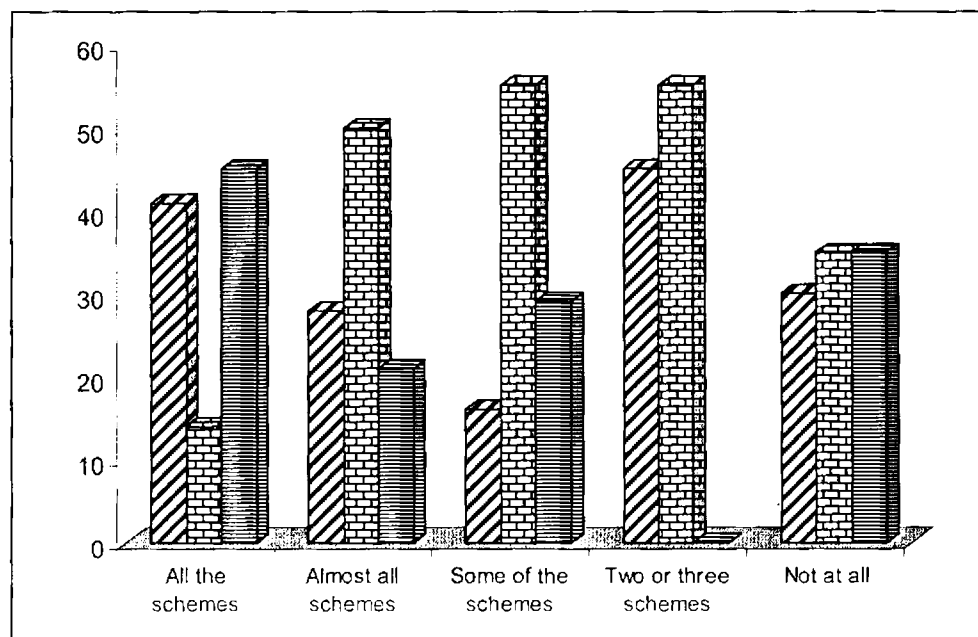


Table 7.8 and chart 7.7 disclose information regarding the awareness of the respondents regarding the schemes of Matsyaboard. Forty four percent of the respondents in the study area are aware of all the schemes of the Board. Of these, 41 percent of the respondents are in Ernakulam 45, in Thrissur and 14, in Malappuram who are aware of all the schemes. Fifty percent of the respondents in Malappuram is aware of almost all the schemes. It is 28 in Ernakulam and 21 in Thrissur. 29 percent of all the respondents in the study area are aware of almost all the schemes. Ten percent of the respondent fishermen are ware of some of the schemes. It consists of 55 percent in Malappuram, twenty nine in Thrissur and 16, in Ernakulam. There are 14 percent of the respondents are not aware of the any one of the schemes of Matsyaboard. Of these, 35 percent are in Malappuram and Thrissur, and 30 percentages in Ernakulam.

Table 7. 9.
Awareness about Various Schemes

Awareness	Ernakulam		Malappuram		Thrissur	
	Yes Percent	No. Percent	Yes Percent	No. Percent	Yes Percent	No. Percent
1. Group insurance for permanent and complete disability	45	55	26	74	55	45
2. Group insurance for permanent and partial disability	48	52	23	77	53	47
3. Group insurance for at least 24 hours hospitalization due to accident	47	53	18	82	51	49
4. The help for marriage of daughter	45	55	36	64	58	42
5. The old age pension	47	53	46	54	75	25
6. help of Rs. 500/- for temporary disability	48	52	12	88	34	66
7. Help for treatment of cancer, heart attacks, kidney trouble, tumor to brain	44	56	24	76	36	64
8. Help for treatment of arthritis	37	63	1	99	0	100
9. Help for treatment of mental disease	35	65	1	99	2	98
10. Help for the chairman's relief fund	39	61	1	99	3	97
11. S.S.L.C cash award to state level toppers 1 and second	42	58	1	99	42	58
12. S.S.L.C cash award to district level toppers 1 and second	38	62	1	99	55	45
13. Scholarship for two years to the first and second toppers	37	63	1	99	1	99
14. An amount of Rs. 500/- for family Planning	29	71	1	99	60	40
15. Help for treatment of eye from Netra Jyothi scheme	30	70	11	89	43	99
16. Maternity expenses for two children	20	80	1	99	48	52
17. Cash award for the toppers in the state level at +2	16	84	1	99	24	76
18. Cash award for the toppers in the 3 regions in Vocational higher secondary level	9	91	1	99	3	97
19. Group insurance to dependents-death due to accident and missing	75	25	20	80	46	54
20. Scheme for death at the time of fishing or just after fishing and not due to accident but have no claim in group insurance	76	24	22	78	53	47
21. Rs. 5000/- due to death of active fisherman in any circumstances	70	30	16	84	53	47
22. Rs. 1000/- for the person who have met funeral expenses (no dependents)	36	64	15	85	53	47
23. Funeral expenses of dependents	33	67	14	86	52	48

Source: survey data

Chart 7.8. Awareness about Various Schemes

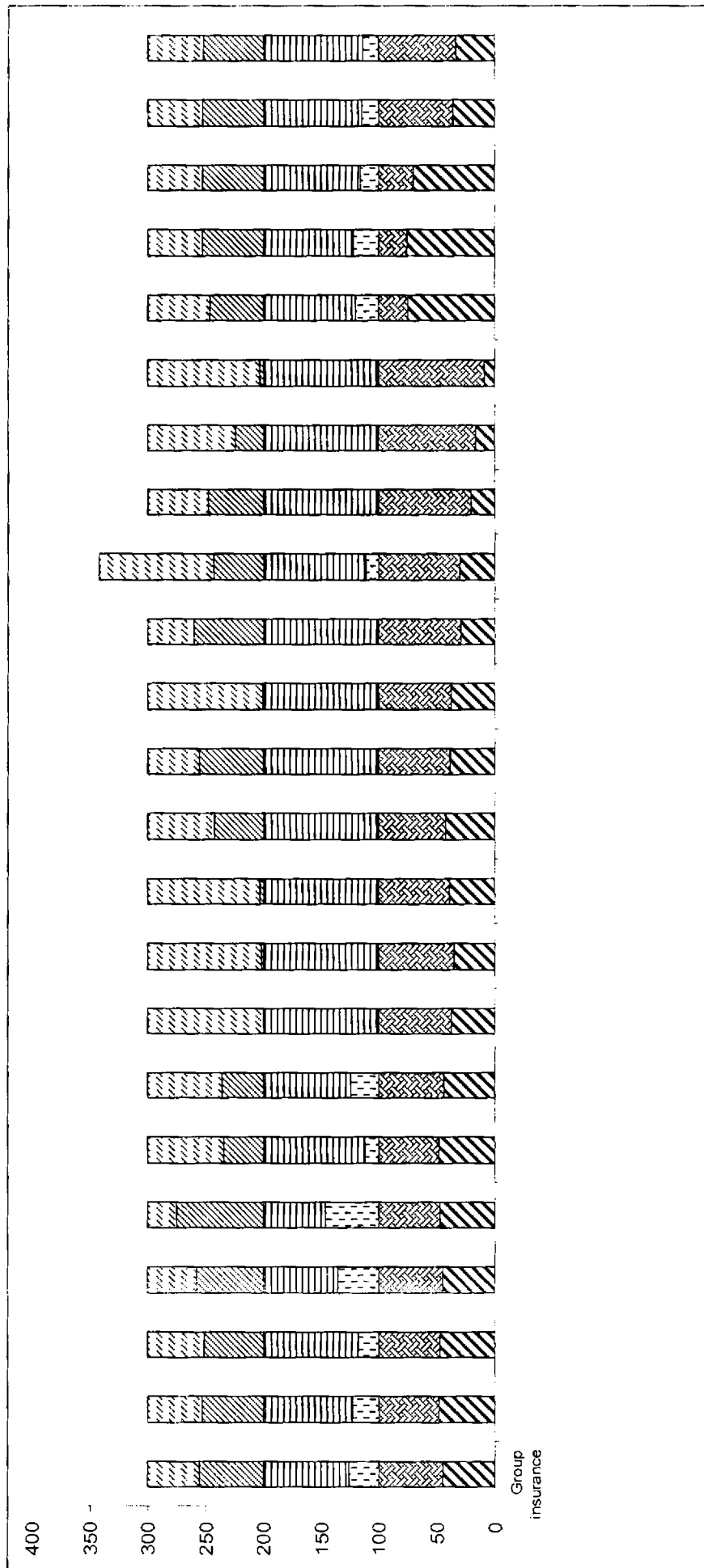


Table 7.9 and chart 7.8 give details regarding awareness of the respondent fishermen regarding various schemes sponsored by Matsya board. 45 percent of respondent fishermen in Ernakulam, 26 percent in Malappuram and 55 percent in Thrissur are aware of group insurance for permanent and complete disability. Respondents are aware of the scheme of insurance or partial disability for 48 percent of respondents in Ernakulam 23 percent in Malappuram and 53 percent in Thrissur. Fort- seven percent of respondents in Ernakulam district, 51 percent in Thrissur and 18 percent in Malappuram are aware of group insurance scheme on hospitalization for 24 hours due o accident. Marriage of daughters is another scheme. Forty five percent from Ernakulam, 36 percent from Malappuram and 58 percent from Thrissur are aware of his scheme.

The Matsyaboard is not in a position to disburse funds during the last 4 years under the schemes such as maternity expenses, the help for marriage of daughter, help of Rs. 500/- for temporary disability, help for treatment of cancer, heart attacks, kidney trouble, and tumor to brain, etc. Around eight schemes are not functioning during this period. {Desabhimani (Malayalam Daily), 2007, February 14}.

7.7. Matsyafed

Matsyafed, the apex body of the fishermen welfare and development co-operatives implement schemes meant for the development of marine fisheries in the state. It has started functioning from November 1984 onwards with twin objectives of promotion of fish production, processing and marketing in the artisanal sector and improving the well being and quality of life of the fishermen.

MATSYAFED SCHEMES

Fishermen Personal Accident Insurance Scheme:

Every year, Matsyafed implements the Personal Accident Insurance scheme for the fishermen members of the affiliated primary co-operatives with the assistance of Insurance Companies by collecting a nominal insurance premium. The scheme provides compensation of one lakh and fifty thousand rupees to the dependants of anglers who have suffered permanent disability, loss of both limbs/eyes etc.

Table 7.10

Matsyafed for Group Insurance

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Contributing	32	19	62	37	75	44	169	56
Not Contributing	68	52	38	29	25	19	131	44
Total	100		100		100		300	100

Source: survey data

Chart 7.9 Matsyafed for Group Insurance

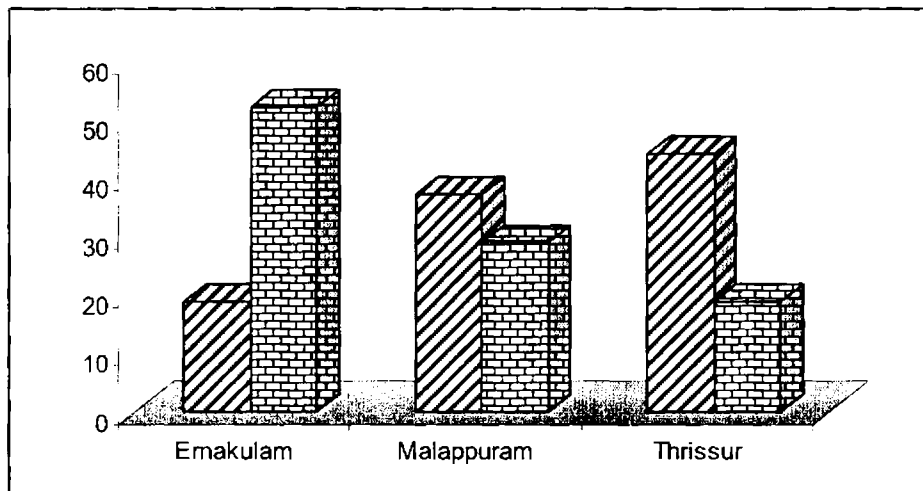


Table 7.10 and chart 7.9 show that 56 percent of the respondents are contributing to Matsyafed insurance. . If a fisherman has some sort of dealings with Matsyafed, he will become a contributory automatically. Of these, 19 percent of the respondents are in Ernakulam, 37 percent in Malappuram and 44 percent, in Thrissur are contributing to group insurance scheme of Matsyafed.

Table 7.11

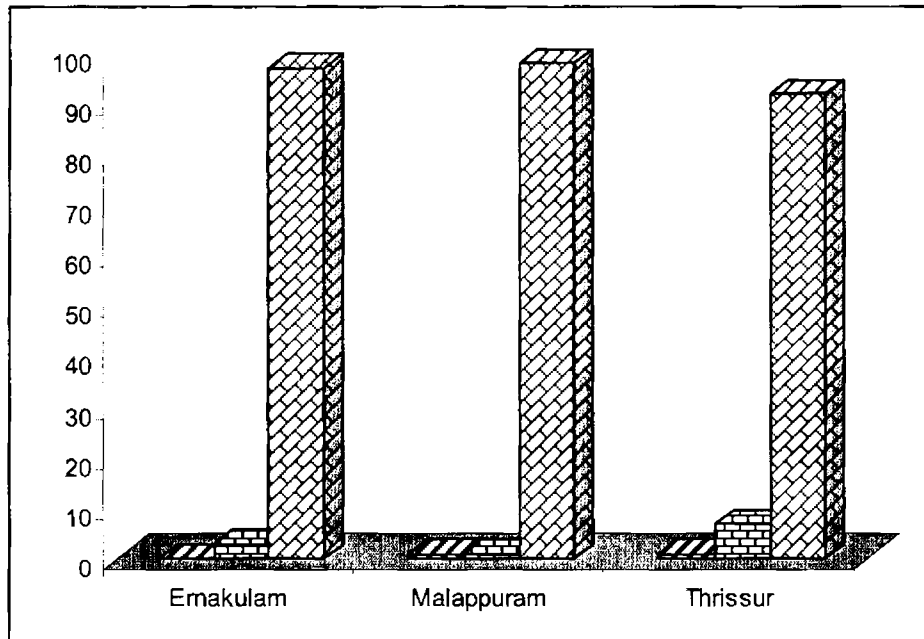
Dependence for Gas/Diesel/Kerosene/2T Oil

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Always	0	0	1	1	1	1	2	1
Partially	1	3	1	1	5	7	7	4
Not at all	31	97	60	98	69	92	160	95
Total	32	100	62	100	75	100	169	100

Source: Survey data

Chart, 7.10

Dependence for Gas/Diesel/Kerosene/2T Oil



The response of the fishermen towards assistance for gas/diesel/kerosene/2T oil is very insignificant. One percent each from Malappuram and Thrissur responded that they depend on Matsyafed always for their fuel requirements. Another one percent from Malappuram, 3 percent from Ernakulam and 7 percent from Thrissur opined that it is fulfilled partially. Ninety five percent replied negatively.

Table 7.12 and chart 7.11 provide information regarding the number of respondents who have received assistance for repair and maintenance of craft and gear.

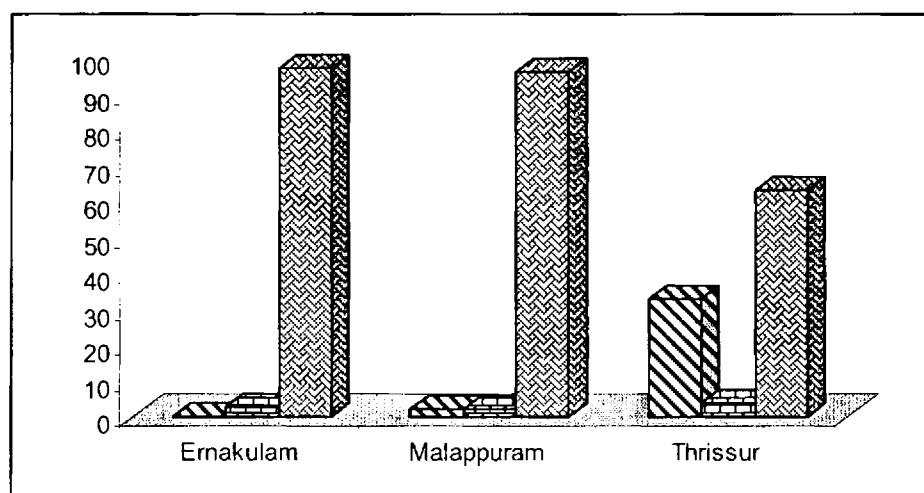
Table 7.12

Repair and Maintenance of Craft and Gear

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Always	0	0	1	2	25	33	26	15
Partially	1	3	1	2	3	4	5	3
Not at all	31	97	60	96	47	63	138	82
Total	32	100	62	100	75	100	169	100

Source: Survey data

Chart 7.11 Repair and Maintenance of Craft and Gear



Thirty three percent of respondents in Thrissur district have always received assistance. But it is two percent in Malappuram and no respondent in Ernakulam responded positively. Assistance is received partially by 3 percent in Ernakulam, 2 percent in Malappuram and 4, in Thrissur. The Matsyafed, for repair and maintenance, in no way assists eighty two percent of the respondents.

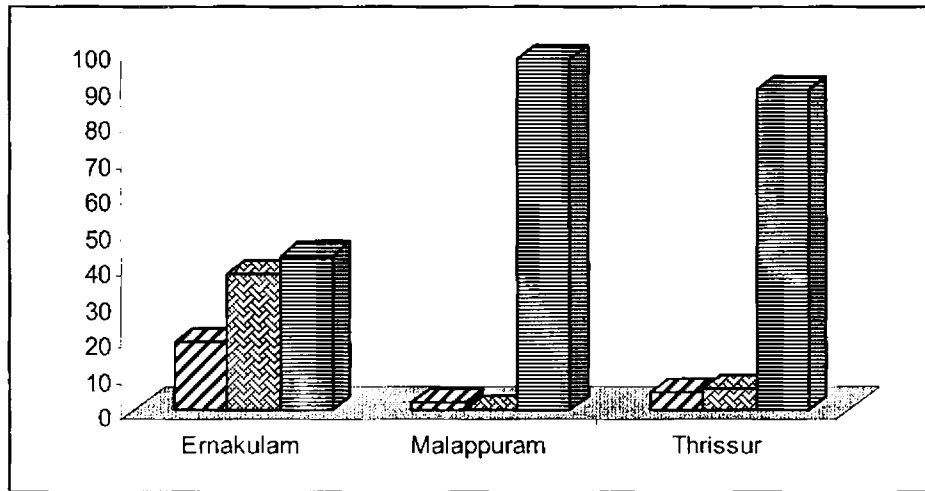
Table 7.13

Dependence on Vyasa Stores

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Always	6	19	1	2	4	5	11	7
Partially	12	38	0	0	5	6	16	9
Not at all	14	43	61	98	67	89	142	84
Total	32	100	62	100	75	100	169	100

Source: Survey data

Chart 7.12 Dependence on Vyasa Stores



Nineteen percent of the respondent beneficiaries in Ernakulam always depend on Vyasa stores for purchase of nets and accessories. It is only two percent in Malappuram and 5 percent in Thrissur. Thirty eight percent partially depend on Vyasa stores in Ernakulam, and six percent in Thrissur. There is no respondent beneficiary in Malappuram district partially depending on Vyasa stores.

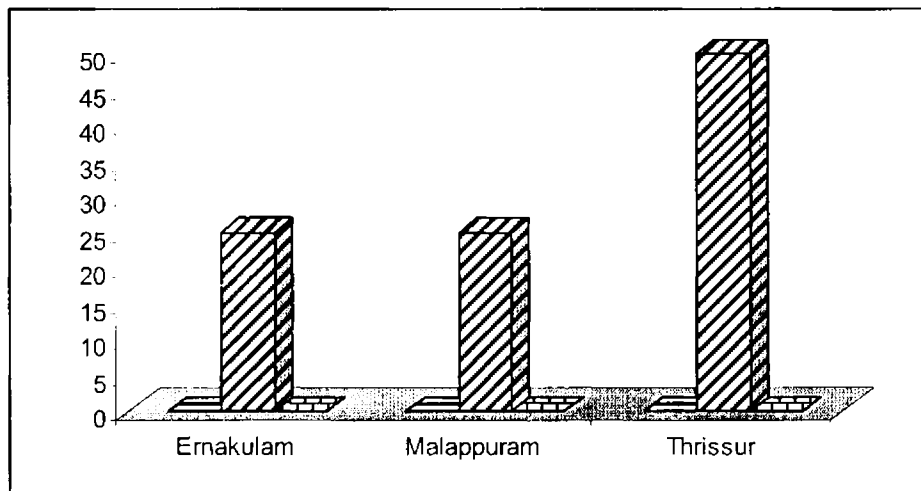
Table 7.14 and chart 7.13 give information regarding the penetration of Matsyafed into marketing as auctioneer to get better prices for their catch.

Table 7.14
Better Value for Catch

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Always	0	0	0	0	0	0	0	0
Partially	1	25	1	25	2	50	4	2
Not at all	31		61		73		165	98
Total	32	100	62	100	75	100	169	100

Source: sample survey

Chart 7.13 Better Value for Catch



External, even global marketing forces are determining price of catch. Hence, respondent fisherfolk are not thinking that Matsyafed in no way get any grip over such forces. Majority of respondents has

expressed their responses negatively. Twenty five percent each in Ernakulam and Malappuram and 50 percent in Thrissur expresses a partial possibility.

Table 7.15 and chart 7.14 show the significance of Matsyafed in providing fuel to fisherfolk at subsidized rates in order to reduce the operating cost and thereby increasing their earnings per catch

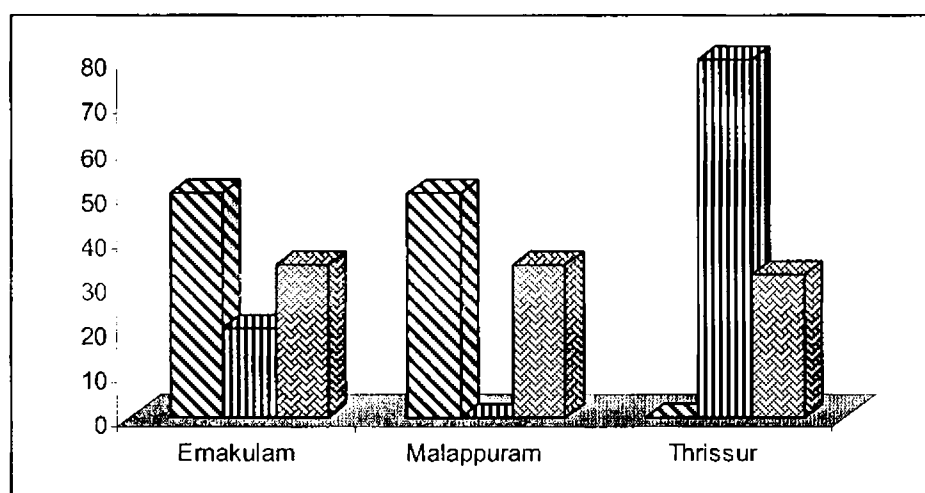
Table 7.15

Matsyafed Subsidy and Cost of Operation

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Always	1	50	1	50	0	0	2	00.67
Partially	1	20	0	0	4	80	5	01.67
Not at all	98	34	99	34	96	32	293	97.66
Total	100		100		100		300	100.00

Source: Sample survey

Chart 7.14 Matsyafed Subsidy and Cost of Operation



Only 0.67 percent of respondents replied positively to state that Matsyafed subsidy always helped them to reduce their cost of operation. Around 1.67 percent respondents opined that it partially reduces the cost of production. All other respondents, nearly 98 percent, opined negatively, as subsidized fuel is not enough to increase their earnings.

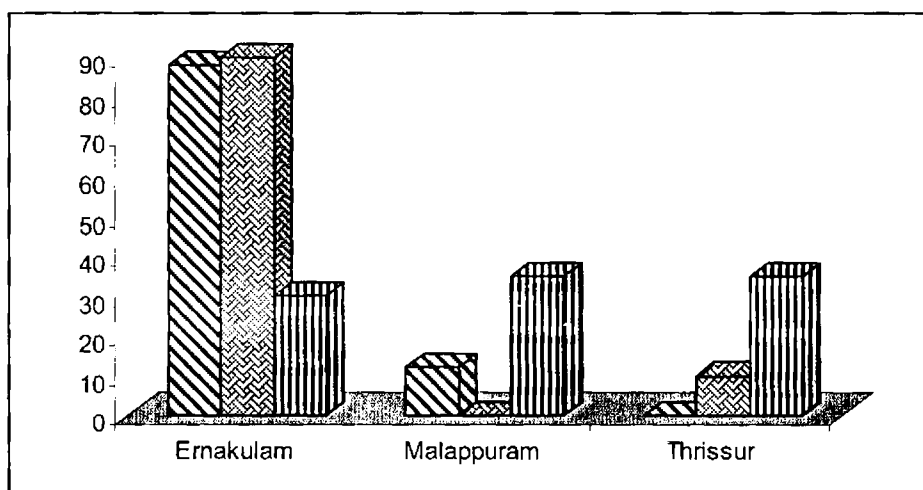
Table. 7.16 and chart 7.15 provide responses regarding non-possibility of respondents resort to Matsyafed auction.

Table 7.16
Matsyafed Auction and Indebtedness

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Always	7	88	1	12	0	0	8	02.67
Partially	9	90	0	0	1	10	10	03.33
Not at all	84	30	99	35	99	35	282	94.00
Total	100		100		100		300	100.00

Source: Survey data

Chart. 7. 15 Matsyafed Auction and Indebtedness



Around 2.67 percent of the respondents said that though there is no possibility to resort to Matsyafed auction, below 4 percent, opined that they will partially depend on Matsyafed due to indebtedness. However, majority, 94 percent of the respondents opined that they would in no way resort to Matsyafed because they are indebted to local auctioneer.

Matsyafed Input Security Scheme (MISS)

Matsyafed is implementing the Input Security Scheme (MISS) for compensating the losses due to accidents and natural calamities sustained to the fishing implements distributed under Matsyafed schemes. The corpus of this scheme is constituted as a revolving fund by raising funds from different sources including assistance from Government and beneficiary contribution. The fishermen can enroll under MISS at the time of availing assistance for fishing implements under loan schemes of Matsyafed by remitting the contribution @4Percent of the cost of the implements. The coverage is for a continuous period of 3 years. The losses / damages sustained to the fishing inputs under the prescribed conditions will be assessed by the Matsyafed Officials and the compensation will be released to the beneficiaries.

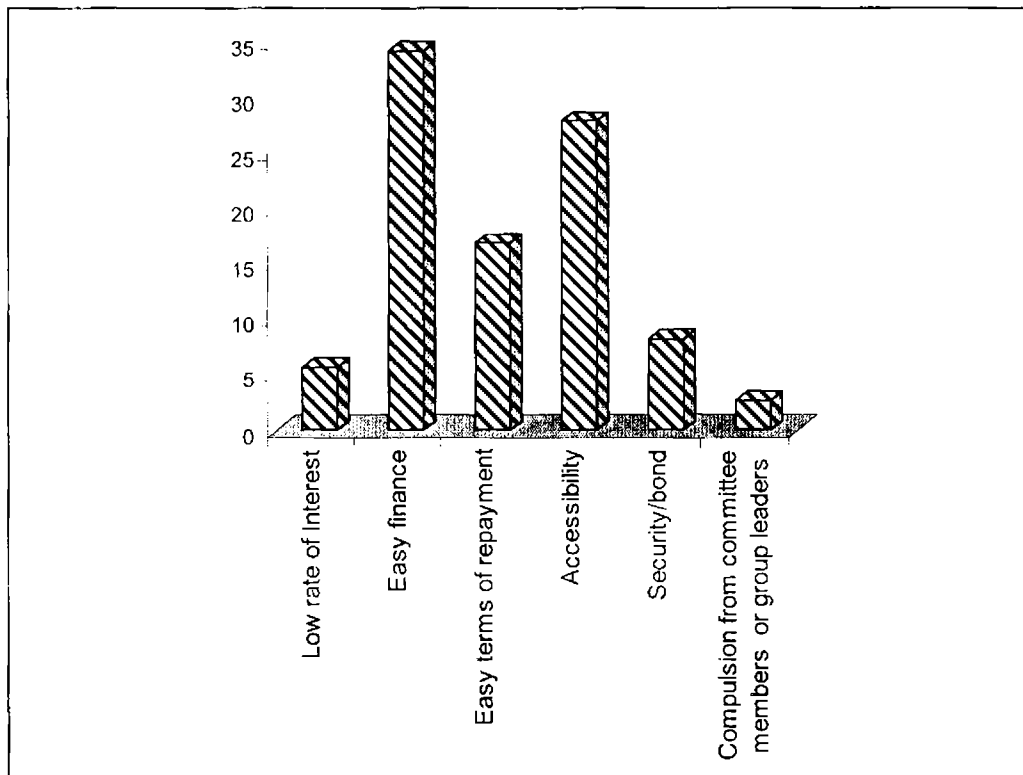
Table 7.17 and chart 7.16 state reasons for preference of an agency other than Matsyafed for their financial requirements.

Table 7.17
Preference of Other Agencies

Reasons	Ernakulam	Malappuram	Thrissur	Grand total	
				No.	Percent
Low rate of Interest	0	3	14	17	05.7
Easy finance	47	12	44	103	34.3
Easy terms of repayment	1	6	44	51	17.0
Accessibility	41	7	36	84	28.0
Security/bond	1	2	22	25	08.3
Compulsion from committee members or group leaders	2	2	4	8	02.7
Total				300	

Source: survey data

Chart 7.16 Preference of Other Agencies



The most significant reason is easy finance. Thirty four percent of respondents prefer other agencies because of easy finance another 28 percent prefer other because of accessibility. Seventeen percent prefer them because of easy terms of repayment. Around 8 percent considers the problem of security or bond. For 5 percent, rate of interest is a concern. Around 3 percent are compelled to depend on other s because of group compulsion.

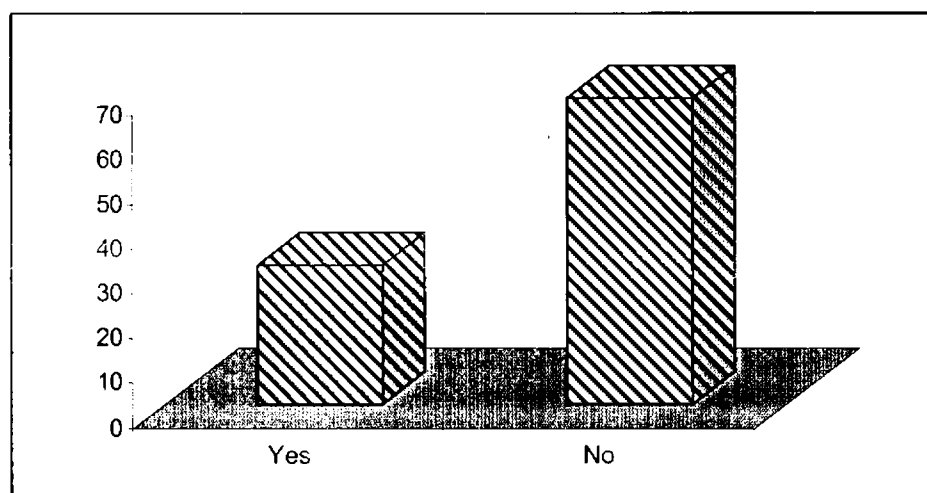
Table 7.18

Repayment of Credit

Response	Ernakulam	Malappuram	Thrissur	Grand total	
				No.	percent
Yes	38	11	45	94	31.3
No	62	89	55	206	68.7
Total	100	100	100	300	100

Source: survey data

Chart 7.17 Repayment of Credit



Around 31 percent of the respondents from the three districts under study opined that they are prompt in repayment to other agencies than Matsyafed. Almost 68 percent have no difference in attitude towards repayment whether it is from a government agency or others.

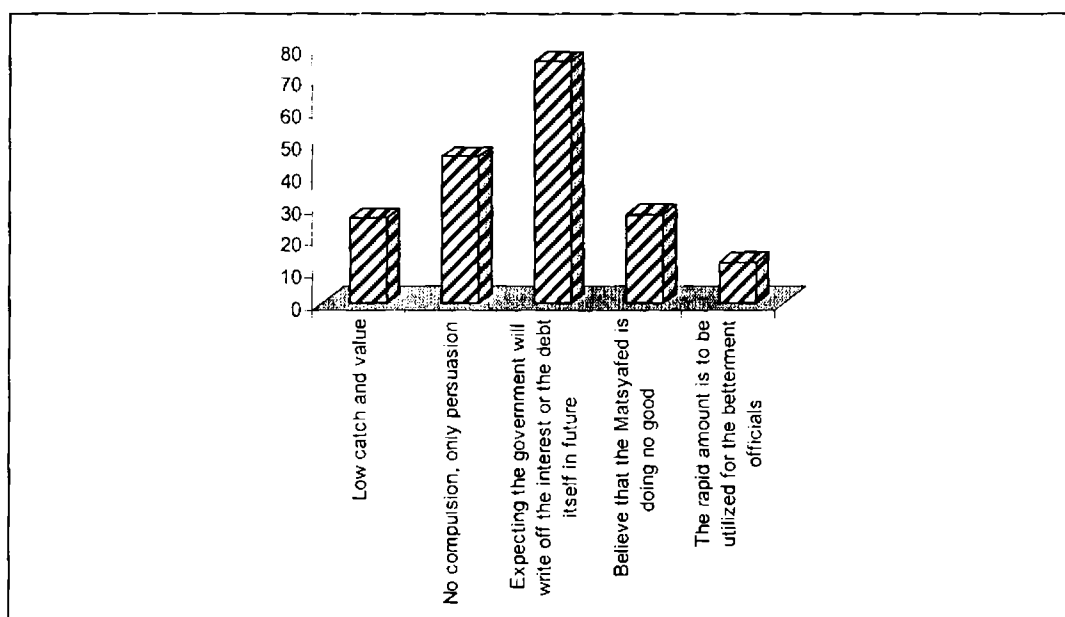
Table 7.19

Nonpayment or Undue Delay in Repayment

Reasons	Ernakulam	Malappuram	Thrissur	Grand total	
	Percent	Percent	Percent	No.	Percent
Low catch and value	1	4	20	25	26.6
Compulsion, only persuasion	2	10	31	43	45.7
Expecting the government to write off the interest or the debt itself in future	33	6	32	71	75.5
Believe that the Matsyafed is doing no good	2	2	22	26	27.7
The rapid amount is to be utilized for the betterment of officials	0	0	12	12	12.8

Source: survey data

Chart 7.18 Nonpayment or Undue Delay in Repayment



More than 75 percent of the respondents expect that the government will write off their debts in future. Another 45.7 percent is not making a repayment because there is no compulsion to make payment. A 27.7 percent think that though they are making a repayment it is not doing anything good. For 26.5 percent the reason is low catch and earnings.

Table 7.20

Quantity of Catch and Modern Craft and Gear

Response	Ernakulam		Malappuram		Thrissur		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Always	4	13	1	2	2	3	7	4
Partially	5	16	1	2	8	11	14	8
Not at all	23	71	60	96	65	86	148	88
Total	32	100	62	100	75	100	169	100

Source: survey data

Chart 7.19 Quantity of Catch and Modern Craft and Gear

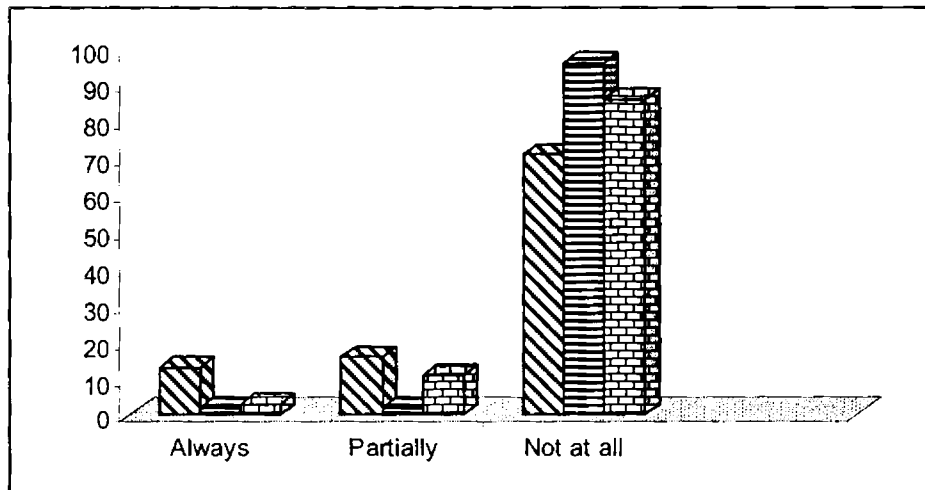


Table 7.20 and chart 7.19 give the responses of the respondents who are now enjoying use of modern crafts and gear. But their opinion differs significantly regarding the increase of catch due to craft and gear. Four percent of the respondents are of opinion that they always have a good catch due to modern craft and gear. Fourteen percent of the respondents said that it is only partially influencing to get a good catch. Eighty eight percent is not thinking it is possible to increase catch with modern craft and gear. The reasons may differ, though there are more modern craft and gear, it is not possible to get good catch as the quantity of fish in the sea is decreasing. The cost of operation is much more in modern crafts and even if there is a good catch, it will be set off by increased cost of operation.

Chapter 8

The Implementation And Other Management Problems

CHAPTER -8
THE IMPLEMENTATION AND OTHER MANAGEMENT
PROBLEMS

The last chapter was devoted to discuss the awareness of the beneficiaries about the various schemes implemented for their benefit, this chapter is devoted to discuss the management problems connected with the implementation of the various schemes.

India, even after several years of planned development, has not formed an independent ministry for fisheries sector. Fishery is only a subsection of agriculture though it is one of the important sectors, which gives employment, earns foreign exchange and a provider of animal protein to the poor masses.

Different ministries, departments and agencies are working for the fisheries sector with different objectives, with the same objectives, but with different strategies and often their activities contradict, or overlap each other.

A number of legislations were enacted in India and at the international level for the well-being of fishers, fishery and oceanic resources, which is inevitable for the sustenance, and even the existence of life on earth. India is a party to the international legal

commitments to sustainable marine fisheries. Some such agreements are;-

1. Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (New York 1995) .
2. United Nations Convention on the Law of the Sea, 1995 and
3. Rome Declaration on the Implementation of the Code of Conduct for responsible Fisheries, 1999.

In addition to these international agreements, at national level the government of India has initiated a number of legislations for the protection and well being of fishery sector and Indian oceanic resources. Some such legislations are as follows;-

Exclusive Economic Zone (EEZ) management measures assign the powers to regulate fisheries in the EEZ to the Indian Union. The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act from 1976 defines the Indian maritime zones and the rights India claims towards them for the purpose of international law. The following are some of the rights relating to conservation issues in the EEZ: -

In the exclusive economic zone, the Union has,-

(a) Sovereign rights for the purpose of exploration, exploitation, conservation and management of the natural resources, both living and non-living, as well as for producing energy from tides, winds and currents.

(b) Exclusive jurisdiction to preserve and protect the marine environment and to prevent and control marine pollution.

The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act, 1981, regulates the prerequisites for foreign vessels fishing in the EEZ. No management rules are explicitly mentioned.

Regulation of Fishing by Foreign Vessels) Act leaves room for administrative provisions that might have relevance to fisheries management when it says:

“A license granted under this section-

(c) Shall be valid for such areas, for such period, for such method of fishing and for such purposes as may be specified therein.

(d) Shall be subject to conditions and restrictions as may be prescribed and to such additional conditions and restrictions as

may be specified therein. It was actually not possible to find out whether the Indian Government imposed such measures (for example, introducing a total allowable catch 'TAC' or an effort limitation).

Even though there is legislation regulating fishing by foreign vessels, there is no such law for Indian flag vessels. Besides, no other cohesive national legislation relevant for fisheries has been presented in the official legislation list of the Indian Ministry of Law and Justice.

Sampath 2003, page 177, points out that in 1978 itself the Ministry of Agriculture formulated a model Marine Fishing Regulation Act (MFRA), serving the provincial states to evolve and enact laws regulating fishing in the 12 nm (nautical miles) coastal zones.

The Government of India, Department of Animal Husbandry & Dairying, has also published a report in 2004 that is concerned with fisheries management and fisheries legislation (Comprehensive Marine Fishing Policy Document 2004).

It identifies the need for conservation, management and sustainable utilization of the marine resources. It offers the government's assessment of the status quo of the Indian Waters, the resources and the management measures that ought to be taken.

However, it remains unclear, when and how far the postulated policy goals will be implemented into legislation. The Indian Union also enacted measures that indirectly protect marine fisheries resources under the Environmental Protection Act 1986, and two subsequent notifications in 1991 and 1994 regulate the discharge of pollutants, inspection schemes and the prohibition and restriction of the location of certain industries in coastal zones

Sampath (2003) recognizes gaps in the Indian legislation regarding the management of fisheries resources. Indian legislation merely regulates the access to fishery resources, but not the resource “itself”, i.e. its use and its management.

Edeson (2003) concludes that fisheries laws need to be updated and include EEZ fishing by Indian nationals. Thus, he recommends the introduction of modern management and conservation objectives into national legislation.

As per Coastal Zone management legislature of any State has exclusive power to make laws for such State or any part thereof with respect to fisheries. Thus, all regulations related to fishing in the territorial sea are framed by state legislature. Each coastal state has its own fishery laws.

The Kerala Marine Fishing Regulation Act, 1980 was the first of its kind in India. It features measures regarding fisheries management. It gives the State Government power to regulate, restrict or prohibit fishing in specified areas or times, the number of vessels, and the use of fishing gear. In making such orders, it shall have regard to 'the need to conserve fish and to regulate fishing on a scientific basis.' Under this Act, fisher folk must apply for licenses for using their vessels. In granting or refusing the licenses, the authorities shall have regard to, e.g. 'the condition of the fishing vessel including the accessories and fishing gear with which it is fitted', If it is found out that the vessel has been used in contravention of any provision, or of any order made under the Act, penalties shall be imposed.

The West Bengal Marine Fishing Regulation Act, 1993 can serve as another example for state legislation. It resembles the Kerala Marine Fishing Regulation. It also provides provisions that entitle the state government to regulate various management issues, like gear type, marine protected areas, closed seasons, and number and size of fishing vessels etc. In making such orders, the government shall have 'regard to conservation matters and the interests of small scale fisheries'. Licenses and penalties are granted or imposed under the same conditions.

Similar provisions can be found in other state legislation (i.e., Maharashtra Marine Fishing Regulation Act, 1981 Orissa Marine Fishing Regulation Act, 1980; Tamil Nadu Marine Fishing Regulation Act, 1983. It is worth mentioning that a widely used management tool is not referred to in state legislations. Like, on the union level, no rules prescribe that state governments may prescribe a total allowable catch (TAC) or an effort control.

Regarding state fishery legislation, Sampath, (2003), recognizes a lack of mechanisms to enforce and manage resources. The competent agencies lack manpower, infrastructure and adequate funding.

Edeson (2003), also states that 'the existing legal framework is too weak or the enforcement mechanisms are inadequate to manage fisheries in the federal states.'

Bavink, (1996), is of the opinion that a special case of non-governmental regulation can sometimes be found in local coastal communities. For example, on the Coromandel Coast of Tamil Nadu a non-governmental fishers council, representing fishermen from around 28 hamlets, decided in 1996 to ban a specific fishing gear called kachaavalai (small hoop nets). The fisher folk had recognized that the introduction of this fishing gear would affect other fish stocks negatively and cause social disruption among and within the participating

communities.* Even though the monetary incentives to fish with the new gear for yet unexploited ground snail shells were high, the settlement of social and environmental problems was regarded to be more important. Thus, the ban was successfully implemented and maintained. 'Kadakodi's or court of the sea is another such system found in Kerala coast which is now very weak due to the so called technological developments and resultant change in the outlook of fisher men community.

Berkes (2004) quotes another example of non-governmental community based resource management, the 'padu system' with its partly independent institutions - the Sanghams - in south Indian regions. The Sanghams are basically associations of fisher's families being registered at the State Registrar's Office *at the High Court. The Sanghams facilitate equitable access to fishing grounds considering collective social responsibility, and provide mechanisms for conflict resolutions and rule making. Sometimes 'padu rules' relate to the protection of the resources, like the prohibition of fishing during the incoming tide in certain areas, when shrimp migrate from the sea to backwaters.

Management actions at

a. Union Level

According to Annual report, (2004), national legislation towards sustainable marine fisheries in the EEZ hardly exists. Thus, no illustrative empirical information on subsequent management actions under such measures is to be presented. In fact, at the Union level, one rather finds promotion activities stimulating the growth and the extension of the fishery sector. At the Union level, measures are taken to extend and promote the fishery sector (according to the Government of Indian, India is already the third largest producer of fish in the world). An increase in consumption of fish by Indian citizens from 9.5 kg per capita/per year up to 11 kg is targeted. The Indian government estimates that it would be possible to extend harvests from current 2.9 million tonnes up to 3.9 million tonnes.

It further states that it shall be accomplished by the promotion and development of coastal, deep sea, and inland fisheries, aquaculture, welfare programmes for fisherfolk, fisheries training and extension, strengthening of data-base and information networking, union assistance to fisheries institutes and other measures to attract labour force to the fishery sector. All these sectors receive huge amounts of subsidies.

The Department of Animal Husbandry and Dairying has published a document (Comprehensive Marine Fishing Policy Document 2004) in which it recognizes the need for conservation, management, and sustainable utilization of the marine resources. It lays out the government's assessment of the state of the Indian waters, its resources, and the management measures that ought to be taken.

The ministry postulates the adoption of a stringent fishery management system. This new regime should include 'a fresh model bill on coastal fisheries development and management with a re-orientation on limited access in the coastal marine sector through policy initiative, sound legislation and awareness creation.'

The Ministry also wants to introduce registration obligations and standards for vessel construction and fishing gear. Besides, it recommends management measures like closed seasons on both coasts, a strict ban on all types of destructive methods of fishing, a quota system for different classes of fishing vessels, the prohibition of the catching of juveniles and non-targeted species, and the prohibition of discarding less preferred species once caught. In addition to that, it recognizes the need to strengthen enforcement. A resource enhancement programme should also be promoted.

India also signed the Rome Declaration on the Implementation of the Code of Conduct for Responsible Fisheries in 1999. By signing the Declaration, India recognizes its concerns that 'many of the world's major marine fishery resources were subject to over fishing, destructive and wasteful fishing practices and excess capacity; resulting in reduced yields and economic returns'. It also declared to 'collaborate with other States and relevant inter-governmental and non-governmental organizations and financial institutions to promote the effective implementation of the Code of Conduct for Responsible Fisheries.'

b. State Level

On the state level one can see from the examples of the States like Andhra Pradesh and Kerala that there is also a strong tendency to promote fisheries rather than to limit the amount of fish caught. Thus, strong subsidization of the fisheries sector is a common feature of state fishery policy. The subject of sustainability is sometimes not even mentioned in the official online presentations of the fishery policies. (E.g. Orissa, Tamil Nadu, Andhra Pradesh).

Nevertheless, a number of maritime states have introduced closed seasons for fishing, on both east and west coasts, for stock enhancement. A unified regime was expected to be introduced to impose an annual closed period of 65 days on the west coast and 45 days on

the east coast. Sporadically one finds reports on management actions by state governments.

State of marine resources

Kerala will serve here as a showcase for state level developments. Even though the government of Kerala enacted laws relating to fisheries management in the territorial sea more than twenty years ago (these rules include management measures like seasonal closures, bans on trawling during monsoon seasons, and the formation of scientific advisory committees, see above), one finds marine waters of Kerala in a bad shape. According to the inquiries of the (Indian) Central Institute of Fisheries Technology (2000), Kerala waters show clear signs of over fishing. 'Massive changes in the species composition of the catch and the disappearance of previously important species with an increase in unmarketable or small-sized species' occur. The pressure being put on the resources results from the increasing number of vessels, which simultaneously use innovative fishing gear. The Central Institute of Fisheries Technology suggests that the enactment of suitable legislation regarding conservation, implying the lack of effectiveness of the existing regulations.

At the same time the state government is taking measures to implement the provisions of legislations to conserve the marine

resources and to achieve sustainability of the fishers in the coastal belt. One of the important steps to achieve this end is to ban trawling during the monsoon season in the marine waters of Kerala. This ban shall conserve the marine resources intact.

Table 8.1 gives details of trawl ban period implemented by the government since 1988.

Table 8.1
Trawl ban Periods

Year	From	To	Days	Remarks
1988	2-7-88	31-8-88	61	Except Neendakara
1989	20-7-89	31-8-89	43	Complete
1990	28-6-90	21-7-90	24	„
1991	15-7-91	13-8-91	30	„
1992	21-6-92	3-8-92	44	„
1993 to2004	15-6-93	29-7-of every year	45	„
2005*				
2006	15-6-06	15-8-06	62	”
2007	15-6-07	31-7-07	47	”

*data not available, Marine Fisheries of Kerala at a glance 2003, Marine fisheries statistics of Kerala 2005, Economic review 2006,

The Hindu, 15-6-2007

The trawling ban for mechanised boats for 61 days was introduced in Kerala from 1988, with an exception of Neendakara coast. Since then a complete trawling ban was implemented in the year 1990, it was for a period of 24 days and in 1992, for 30 days; since 1993 the

ban was for 45 days. But in the year 2006 it was increased to 62 days and in 2007, for 47 days. Only traditional fishing boats were permitted to go for fishing during the period of ban. In the year 2007, boats with inboard engines of more than 100 hp were not allowed during the ban period.

Table 8.2 gives an account of the fish landings for the period from 1978 to 2006 i.e., before and after the implementation of ban on fishing.

Table 8.2.
Marine Fish Landings in Kerala

Period	Year	Total landing	Average Annual Landing Metric tonnes
Pre-ban	1977 to 1986		336825
Post -ban	1986-1987	30.3	
	1987-1988	46.9	
	1988-1989	64.8	
	1989-1990	66.3	
	1990-1991	56.4	
	1991-1992	56.1	
	1992-1993	57.5	
	1993-1994	56.8	
	1994-1995	53.2	
	1995-1996	57.2*	545500
	1996-1997	57.5	
	1997-1998	51.1	
	1998-1999	58.2*	
	1999-2000	59.4	
	2000-2001	56.7	
	2001-2002	59.4	
	2002-2003	60.3	
	2003-2004	60.9*	
	2004-2005	60.2	
	2005-2006	55.9	

Source: 1. Ban on Trawling: An Accepted Practice on Marine Fisheries Management in Kerala, Kerala calling, 2000 * Economic Review various issues, State planning Board, 1997, 1999, 2000, 2004, 2006

Production increased up to the year 1997, except for the first two years of ban period. During 1997-98 production decreased. Since then there is an increase till 2004. Then, again, there is a decrease in the production in 2005. Trawl banning is an important step of the government to manage fishery resources. It was introduced to protect the interests of small scale fishers. We cannot make any convincing inference whether the trawling ban has any positive impact on production. Actually a number of other factors are affecting the increase or decrease in fish production. A systematic and scientific study is required to realize its impact on fish production, resource conservation and sustainability

In this context an enquiry was made among the fisherfolk of the study area to elicit their awareness regarding trawling ban and other regulatory measures implemented by the government.

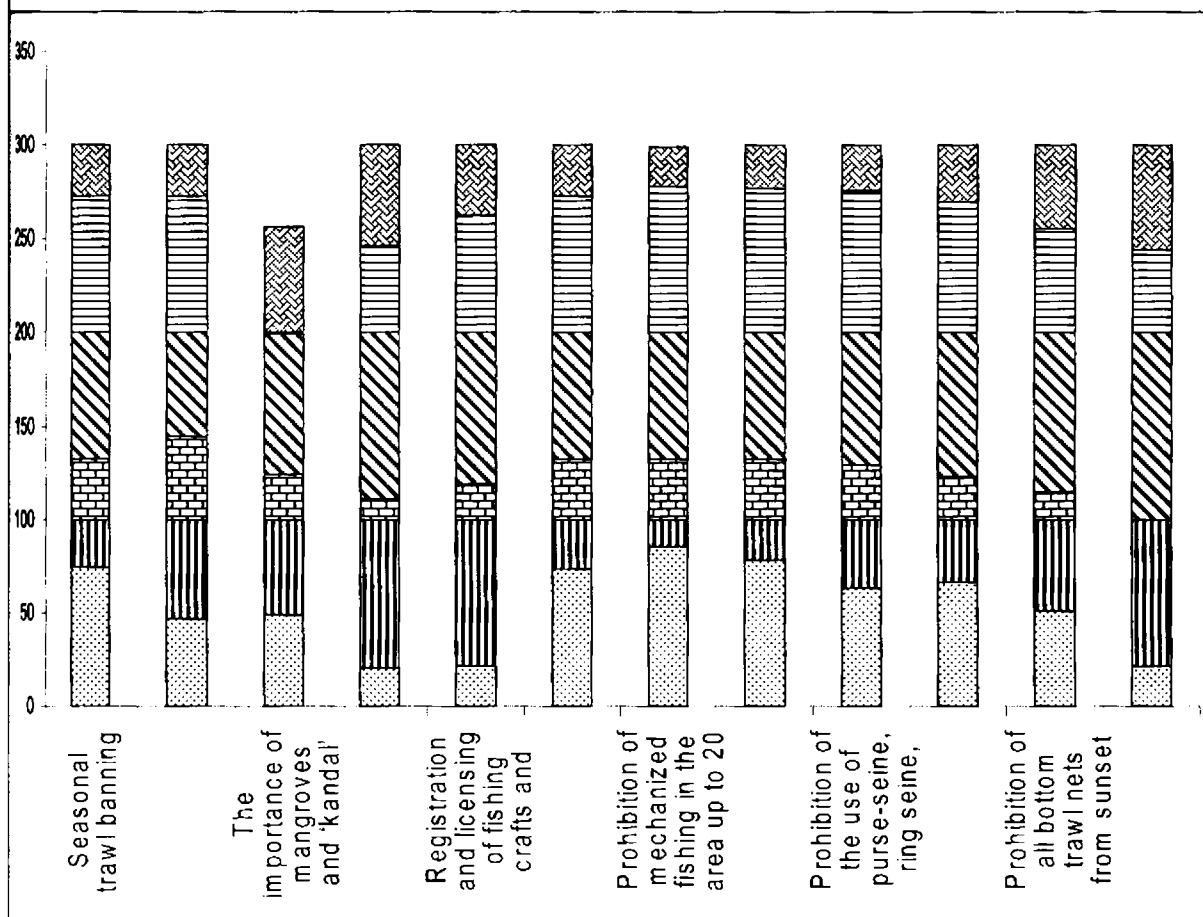
The table 8.3 and chart 8.1 reveal awareness of the respondent fisherfolk in the study area.

Table 8.3.**Awareness about Regulatory Measures**

Awareness	Ernakulam		Malappuram		Thrissur	
	Yes	No	Yes	No	Yes	No
1. Seasonal trawl banning	74	26	32	68	73	27
2. Artificial reefs for strengthening the fishery resources	47	53	44	56	73	27
3. The importance of mangroves and 'kandal' forests for the prediction of coast and resources	49	51	24	75	1	56
4. Pura concept of a fishing village	20	80	11	89	46	54
5. Registration and licensing of fishing crafts and prohibition of non-licensed crafts.	21	79	19	81	63	37
6. Restriction or prohibition of fishing within specified areas using specified crafts, and gears	73	27	32	68	73	27
7. Prohibition of mechanized fishing in the area up to 20 meters	85	15	32	68	78	21
8. Mesh size regulation	78	22	32	68	77	23
9. Prohibition of the use of purse-seine, ring seine, pelagic trawl mid water	63	37	29	71	76	24
10. Trawl and bottom trawl nets	66	34	23	77	70	30
11. Prohibition of all bottom trawl nets from sunset to sunrise in the traditional waters	51	49	15	85	55	45
12. Any other	21	79	0	100	44	56

Source: survey data

Chart 8.1. Awareness about Regulatory Measures



The awareness of the respondents regarding seasonal trawl ban is very high in Thrissur and Ernakulam districts. They are also more aware of the mesh size regulation and prohibition of various types of seines and trawl nets. Regarding registration of crafts and related matters the respondents in Ernakulam districts are more aware. Regarding the awareness, the respondents of Malappuram district is very poor as compared to other districts. Whatever may be the level of awareness they are not strictly adhere to these rules and regulations as

they consider it as something coming from above. They have a feeling that their involvement is much less in such crucial factors, which are genuinely related to them but have no control over them by the community. It makes the rules and regulations only in paper and a strict implementation is not come into existence. The only way is to see that they are taken into confidence and the responsibility to look into the implementation of the rules and regulations be vested with the community.

Chapter 9

Conclusion

CHAPTER 9.

CONCLUSION

The study was conducted with the following objectives:

1. To study the socio economic conditions of those who are involved in the small scale fisheries sector in Kerala.
2. To assess the awareness of the small-scale fisher folk regarding various schemes by the government.
3. To study the implications of various government schemes on the socio-economic conditions and social security of small-scale fishermen.
4. To identify management and operational problems relating to implementation, and to suggest measures for improvement.

With respect to the first objective, the study reveals that the fishery villages in Kerala have better infrastructural and other facilities vis-a- vis other Indian states. All the fishery villages in Kerala are fully electrified. These villages are connected by roads to the extent of 98.65 percent. There is one fish landing centre for every 3.31 kilometers of coast. With respect to boat yards, ice plants, cold storages, freezing

plants curing yards peeling sheds, Kerala coast outnumber other states. Even then, scientific methods of storing, pricing and marketing are lacking in fish landing centres. Around 23 percent of banks and 7.97 percent of cooperatives in Kerala are functioning in the fishery villages. In spite of all these favourable conditions the number of fishers with fishing assets are showing a declining trend,. Kerala have 9.83 percent of total Indian coast with a resource potential of 28.83 percent But production is showing a fluctuating trend during the 10 year period 1996 to 2006. Due to tremendous increase in the crafts particularly motorized crafts; the production per craft has declined and that has resulted in lower income. It leads to insecurity of life. They are living at the mercy of marketers, moneylenders and the sea. Thus they have not attained a dignified social status and standard of living.

With respect to the second objective the study reveals that a significant section of the fisher folk (57percent) is not aware of the welfare schemes implemented by various agencies of the government meant for them. They are also not aware of the existing facilities such as fish markets, fishery dispensaries, fishery schools, Matsyabhavan, fishery roads, Vyasa stores, Matsya Maveli stores, guide lights, etc. The names and purposes of the schemes are very attractive, but the amount of money allocated for such schemes are very limited. There are schemes which provide direct monetary benefit to fisher folk. But they are not even interested to avail such facilities because of the meager

amount involved and the time required to be spent for getting such meager amount. (It requires 3 to 4 working days for submitting the application and other related documents and that results in loss of their daily earnings. In most cases, the amount to be released under the scheme may be equal to or, in some cases, little less than the earnings of the days lost). This situation is exploited by politically influential persons in the locality. They act as agents and collect the money with the silent consent of the officials in the departments. In certain cases even cooperative societies act as agents to collect the amount. Because of such practices the benefits under various schemes are cornered by a few politically influential people. All political parties play their role in pressurizing the officials to manipulate funds allotted under various schemes according to their choice.

The third objective was to study the implications of various government schemes on the socio-economic conditions and social security of small-scale fishermen. Fisherfolk has to enroll as registered fishermen with the fisheries department to be eligible for benefits under the various schemes administered through these agencies. The study reveals that in the study area 83 percent of the fisher folk have registered. But only 43 percent of the registered fisher folk are aware of the schemes of the government. That means more than fifty percent of the fisherfolk are not aware of the various schemes. Some enjoyed the benefits without proper awareness.

The fourth objective is to identify management and operational problems of implementation, and to suggest measures for improvement. The study reveals that irrespective of the scheme (i.e. whether it is a scheme of allotment of houses, provision of sanitation or drinking water), allotment is invariably made on the basis of political leniency. The officers are also influenced by politics, In the case of saving-cum-relief scheme, which is one of the major schemes of comparatively wider popularity; any person of fishermen community is eligible for this benefit, even if he is working outside India. No political parties are willing to speak out due to fear of losing votes. All political parties have decisive role in fixing the beneficiaries in any scheme. Nobody questions their supremacy because of fear of even losing their lives, or the lives of other members of their families. This has led to a situation that any person from the community whether he is a fisherman or not can avail benefit under any scheme, if the political godfathers so desire. Hence, the poor peace loving fisher folk who are to be the real beneficiaries are the losers. It is the nexus between officials and the politicians the root cause of improper implementation of the various schemes. Only by breaking this nexus the targeted beneficiaries will get the benefits.

The trawling ban is systematically implemented from year to year. But motorized boats are allowed to fish in the trawl ban area with pursene nets; hence the very aim of protecting the habitat is

jeopardized. The existing government regulations are to be redrafted to match with policies.

There is no attempt on the part of government agencies that implement the schemes to create awareness among the targeted group about the various welfare and other schemes implemented by such agencies.

❖ **Recommendations:**

- Steps should be taken to weed out political interference at every stage of implementation of all schemes or projects.
- Wide publicity should be given to make the fisherfolk aware of the different schemes of government agencies intended for their benefit.
- There must be a clear cut fishery management policy that fixes the percentage shares of catch for the cooperatives or individual fishermen for greater economic returns.
- Lessons of thrift should be taught by strengthening existing cooperative societies.

- Adequate funds and their timely disbursement should be given prime importance to free the fishers from indebtedness or unwritten bonded labour.
- Use of Government funds should be strictly monitored by fixing responsibilities.
- Fishery offices and the Matsyabhavan should be shifted to the beach and officers should reach the fishermen who are in need of assistance.
- The office hours of the Matsyabhavan should be rescheduled to suit the timings of fish landings.
- Necessary initiatives should be taken to translate the FAO Code of Conduct and other crucial rules and regulations into regional languages for the benefit of local fishermen.
- Consultations with the fishing community should be entertained on issues pertaining to management to promote their dignity and self esteem.

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Xth Plan Outlay of Kerala Government.

Questionnaire

**QUESTIONNAIRE FOR ASSESSING SOCIO
ECONOMIC CONDITIONS OF SMALL SCALE FISHERMEN
AND SOCIAL SECURITY AND WELFARE SCHEMES OF
GOVERNMENT AGENCIES IN KERALA FISHERY**

1. Major Characteristics of Fishing Households

- 1.1.1 Name of respondent :
(Head of Household)
- 1.1.2 Village (Cluster) :
- 1.1.3 District :
- 1.1.4 Community : Hindu/Muslim/Christian
- 1.1.5 Marital Status : Single/Married
- 1.1.6 Nature of family : Nuclear / Joint
- 1.1.7 Educational status
1. No formal education
 2. Primary school
 3. Lower secondary school
 4. Upper secondary school
 5. Religious school
 6. Any other (specify)
- 1.1.8 Age :
1. Below 25 ;
 2. 25 to 35 ;
 3. 35 to 50
 4. 50 to 60 ;
 5. Above 60 years
- 1.1.9 Family Composition of the Fishermen

Sl. No.	Relationship with the Head	Sex	Age	Marital Status	Education	Occupation	Income
1.							
2.							
3.							
4.							
5.							

Code of Occupation:- Own Fishing-1; Fish Processing and Marketing-2; Agriculture-3; Own business-4; Worker Fishermen-5; Government Employee-6; Gulf countries-7; Wage labourer-8; Others (specify)

1.1.10 Institutional Membership :

Member 1

Non Member 2

- | | | | |
|----|--|---|---|
| 1. | Fishermen's association : | 1 | 2 |
| 2. | Fishery cooperative | 1 | 2 |
| 3. | Welfare Fund Board | 1 | 2 |
| 3. | Institutions related to Temple, Mosque or Church | 1 | 2 |
| 4. | Political organizations | 1 | 2 |
| 5. | Any other (Specify) | 1 | 2 |

2.1.4 Fishing operation in a month (days)

	Peak Season (month) May - November	Off Season (month) December -April
1. Less than 15 days		
2. 15 - 19 days		
3. 20 - 25 days		
4. 25 days and more		

2.1.5 How many times you go fishing in a day? :

2.1.6 How much time will take for each trip?

2.1.7 Costs and Earnings

1.	Average catch / month	kg.
2.	Average catch value/ month (A)	Rs.-----
3.	Average operating cost/month	Rs.-----
	Fuel	Rs.
	Lubricant	Rs.
	Ice	Rs.---
	Food, etc.	Rs.

	Total (B)	Rs.

4.	Average operating Profits/month	Rs
	(A) - (B)	

2.1.8 Cost & Quantity of fuel consumption:

	Permit	open market
	Litre - Rs.	Litre - Rs.
a. Diesel		
b. Gas		
c. Kerosene		
d. 2T Oil		
e. engine oil		

2.1.9 Are you an owner of a craft, gear, net or other accessories before or after taking assistance from the Matsyafed?

	Before	After
	Yes/No	Yes/No
a. Craft		
b. Gear		
c. Net		
d. Other		
Accessories		

2.1.10 Reasons for preference of an agency other than Matsyafed for your requirements

- a. Low rate of interest
- b. Easy finance
- c. Easy terms of repayment
- d. Accessibility
- e. Security/bond
- f. Compulsion from committee members or group leaders
- g. Any other (specify)

2.1.11 You are paying back the credit taken from other sources (with or without pledging your assets) more promptly than from Matsyafed :Yes No

If yes,

Reasons for non payment or undue delay in repayment of the loans taken from Matsyafed

1. Low catch and value
2. No compulsion; only persuasion
3. Expecting the government will write off the interest or the debt itself in future
4. Believe that the Matsyafed is doing no good
5. The repaid amount is to be utilized for the betterment officials and not for the fishermen

Assets and nature of sharing

3.1.1 Nature of sharing of Catch

- i. Owner of craft/gear
- ii. Rent (if owner different from crew)
- iii. Crew members' contingent expenses (Tea to crew)
- iv. Auctioneer / Matsyafed
- v. Church/ Temple/Mosque
- vi. Others (specify)

3.1.2 Disposal of catch :

- a. Matsyafed
- b. Wholesalers
- c. Traders
- d. Retailers
- e. Head load
- f. Cycle load

3.1.3 Assets position	Before 2000	After 2000
-----------------------	-------------	------------

- a. Land –farm
- b. Non-farm
- c. Building
- d. Machinery (pump set etc.)
- e. Gold and ornaments
- f. Household Assets
- g. Lighting and heating appliances
(Electric stove, iron box, gas stove, kerosene stove etc)
- h. Modern durables
(Fridge, T.V., Radio, Tape recorder, Mobile phone, Land phone, Electric Fan, Cooker, clock, Wrist Watch, Sewing Machine, Scooter, Auto, Lorry, Motor Bike, Moped, Cycle, etc.)

3.1.4 Expenditure Pattern	: Volume (Rs)	Percentage
---------------------------	---------------	------------

- a. Food
- b. Clothes
- c. Education
- d. Festivals
- e. Donations to temple, church, mosque, etc.
- f. Expenditure for 'offerings'
- g. Entertainment (cinema. etc)
- h. Medicine
- i. Traveling
- j. Smoking (cigarette beedi, ganja, chewing tobacco. etc.)
- k. Drinking (liquor)

Household and Living Conditions and governmental intervention

4.1.1 What was the nature of your living conditions before and after receiving assistance from the Department :

	Before	After
a. Own Land :	Yes/No	Yes/No
b. Type of house Nature of Ownership :	Before	After
	Thatched/ tiled/concrete	Thatched/tiled/concrete
c. Lighting	Yes/No	Yes/No
d. Drinking water	Yes/No	Yes/No
1. Individual Pipe		
2. Community/common pipe		
3. Well		
4. River/Stream		
e. Sanitation	Yes/No	Yes/No

4.1.2 The year and amount of Grant /Loan received.

	Year	Amount (Rs.)
1. Land		
2. Housing		
3. Lighting		
4. Sanitation		
5. Water		

4.1.3 Are you fishermen under the scheme

'Saving-cum Relief' of the Department? Yes No

4.1.4 Are you willing to enhance your contribution thus increasing your total relief? : Yes No

4.1.5 Are you contributing to the Matsyafed for Group Insurance?
(only for members of FWCS) : Yes No

Activities of Government agency for the elimination of Middlemen

Give answers correctly for the following questions true to your knowledge

- Always 1
- Frequently 2
- Occasionally 3
- Do not know 4
- Not at all 5

4.2.1 Your requirement for gas/deisal/kerosene/2T Oil/ engine oil is met through Matsyafed. : 1 2 3 4

4.2.2 There is no need to resort to other agencies for simple loans because of Matsyafed. 1 2 3 4

4.2.3 The Matsyafed is assisting with funds for the repair and maintenance of your craft and gear. 1 2 3 4

4.2.4 You are getting better value for your catch because of the beach level auction of the Matsyafed. : 1 2 3 4

- 4.2.5 Cost of operation is reduced because the fuel is provided by the Matsyafed at subsidized rate. : 1 2 3 4
- 4.2.6 You prefer local level auctioneer because it is easy to get credit for your daily livelihood when there is no/poor catch. 1 2 3 4
- 4.2.7 It is not possible for you to resort to the Matsyafed auction as you are indebted to the local auctioneer. 1 2 3 4
- 4.2.8 The Matsyafed is helping you to payback your debt taken from village money lender/tharakans. : 1 2 3 4
- 4.2.9 Motorization of craft increased your cost of operation
- 4.2.10 Modern craft and gear increased the quantity of catch : 1 2 3 4
- 4.2.11 You are depending on Vyasa Stores for the purchase of nets, accessories and spare parts. 1 2 3 4

Social Security Measures of the Government

- 4.3.1 Are you a registered fisherman?
(Passbook holder) Yes No
If No, reasons for not registering

- a. Not aware of the various schemes
- b. Not expecting any goodness
- c. Cancelled registration because of discrimination at the time of identifying beneficiaries
- d. No ration card or pattayam for land to prove identity for registration
- e. No idea about registration procedure

If Yes,

4.3.2 Are you aware of the various schemes for a passbook holder from the Fishermen Welfare Fund Board?

Yes No

4.3.3 What is your present state of affairs regarding the welfare schemes of the Board

- a. Beneficiary
- b. Non-beneficiary
- c. Do you know
- d. Do not know

4.3.4 What is your assessment on the effectiveness of the following facilities provided by the Fisheries Department/Matsyafed?

- Very Effective 1
- Effective 2
- Not Effective 3
- Do not know 4

- 1. Fish markets 1 2 3 4
- 2. Fisheries Dispensaries/

	Hospitals		1	2	3	4
3.	Fisheries Schools	:	1	2	3	4
4.	Matsyabhavan		1	2	3	4
5.	Fisheries Roads		1	2	3	4
6.	Vyasa Stores	:	1	2	3	4
7.	Matsya Maveli Stores	:	1	2	3	4
8.	Guide lights		1	2	3	4

Government Regulation and Fisheries Resource Management

Do you think that:-

5.1.1 Trawl banning has improved your catch. Yes No

5.1.2 Artificial reefs are important for strengthening the fishery resources Yes No

5.1.3 The fishermen in your village is making effort to protect and strengthen the fishery resources Yes No

5.1.5 You are fully aware of the importance of mangroves and 'kandal' forests for the protection of coast and resources Yes No

5.2.1 What are in your opinion the areas where government intervention is required?

5.2.2 Who in your opinion the best agency to give rules and regulations regarding fishing volume, time, season, species, trips etc.? :

5.2.3 Do you think that community based co-management system is best suited for fisheries resources management?

5.2.4 Is there any community based management system existing in your fishing village? Yes No
 If yes,

Can you explain which are the areas where they interfere?

1. Time for catch
2. Species to be fished
3. Number of trips for fishing
4. Gear and mesh size to be used
5. Number of persons to go for fishing
6. Which person is to go
7. Nature of sharing of catch
8. Conflicts among members
9. Protection of resources
10. Common Pool to Meet Contingencies
11. Any other

5.2.5 Was there any community based management system existed in your fishing village? (e.g. Kurikalyanam, Kadakodi): Yes No
 If yes,

1. Do want to revive such a system in your village? Yes No
2. Do you think that this system will be a success in future under the changed circumstances? : Yes No

5.3.1 What is your assessment of the enforcement of the following regulatory schemes implemented by the Government?

- Very Effective 1
- Effective 2
- Not Effective 3
- Do not Know 4

- a. Registration and licensing of fishing vessels and prohibition of non - licensed vessels 1 2 3 4

- b. Restriction or prohibition of fishing within specified areas using specified crafts, and gears : 1 2 3 4

- c. Prohibition of mechanized fishing in the area up to 20 meters : 1 2 3 4

- d. Banning of trawling 1 2 3 4
- e. Mesh size regulation 1 2 3 4
- f. Prohibition of the use of purse-seine, ring seine, pelagic trawl mid water, trawl and bottom trawl nets (less than 35 mm mesh size) 1 2 3 4

- g. Prohibition of all bottom trawl nets from sunset to sunrise in the traditional waters 1 2 3 4

- h. Artificial reef 1 2 3 4
- j. Any other 1 2 3 4

5.3.2 What is your assessment on fish resources during the last 5 years?

1. Declining
2. Same
3. Increasing
4. Do not know

5.3.3 Fishing conflicts

1. Which of the following have you encountered with so far?
 1. Encroachment /infringement by trawlers
 2. Deep sea fishing vessels
 3. Do not encounter any encroachment

11. Frequency and serious ness

	a) Frequency of incidents	b) degree of seriousness
1. Encroachment/ Infringement By trawlers/big boats		
2. deep sea vessels		
Code: a) very frequently	1	
Frequently	2	
Rarely	3	
b) Very serious(involving physical injuries, loss of lives, damage to boat and gears)		1
Serious (involving damages t boats and gears		2
Not serious (involving verbal abuses only)		3

5.3.4 What are the main problems/constraints you faced as a fisherman?

1. Declining resources
2. Declining catch
3. Labor shortage
4. High operating cost
5. Harassment by trawler/boat fishermen
6. Over-regulation by government
7. Fishing skills to identify the catch area
8. Collective thinking decision making
9. Others (specify)

6.1.1. Do you think that there is a change in the following?

	Before 10 years	After
a. Literacy		
b. Education to children		
c. Reading newspapers		
d. Hearing radio		
e. Viewing TV.		
f. Discussions with friends, politicians, social workers, government officials		