The Quality of Life of Fishermen Community
A micro level study

Final Report of the Minor Research Project

Submitted to
University Grants Commission

By

A.B. JOHN JOSEPH
Principal Investigator

St.Michael’s College, Cherthala
Kerala

2015
DECLARATION

I, A.B.John Joseph, hereby declare that this Project work entitled “The Quality of Life of Fishermen Community - A micro level study” is an authentic record of the project work carried out by me. No part of this work has been submitted by me for the award of any Degree, Diploma or other similar titles of recognition.

Cherthala

A.B.JOHN JOSEPH
CHAPTER I

INTRODUCTION

Fishery is an important sector in most of the developed and developing countries of the world from the standpoint of income and employment generation. The experience in these countries indicate that the growth of the fishing sector stimulates the development and employment in related industries which contribute significantly to the total economic growth of the country. Besides providing direct employment, the industry is also an income generator as it supports canneries, processing establishments, gear and equipment manufactures, boat yards, refrigeration and ice making plants, and transport services in addition to those working in governmental and private fisher based institutions. Fisheries play an important role in augmenting food supply and raising nutritional levels of the population. Besides being an article of protein rich food, fish also yields several bye- products such as fish oil, fish meal, fish manure fish leather, fish glue and isinglass etc. The aquatic resources of the world are varied, extensive and rich in potential. They can be broadly divided in to two groups- marine and inland and
which in turn can be categorized as capture fisheries and culture fisheries. With an extensive coastal line extending along the mainland, with a fairly wide continental - shelf and slope and high sea beyond, the world has rich marine resources. The inshore waters forming the marginal sea together with the coastal inlets constitute an environment of high productivity, offering great scope for culture of a wide variety of marine organisms. Similarly the inland fishery resources comprises two types of waters namely the fresh water and the brackish, the former including river systems, an extensive net work of irrigation canals, reservoirs, lakes, tanks, ponds etc. and the latter, the sprawling estuaries at the confluence of the river system with the sea, a large number of lagoons, brackish water lakes, impoundments and the vast areas of mangrove swamps containing tidal waters of fluctuating salinity.

At present, Japan and Russia are the leading producers of fish in the world. Peru, China and U. S. A are among the first five fishing countries. India is at present holding only the seventh position with the total production of 3.83 million tones. This is due to relatively primitive methods of fishing and large areas remaining unexploited.

**National scenario**

Indian fisheries are an important component of the global fisheries and the sector have been recognized as a powerful income and
employment generator. The contribution of this sector to foreign exchange earnings is substantial and forms 1.4 percent of G.D.P More than 6 million fishermen in the country depend on fisheries for their livelihood.

The country with a long coastal line of 8129 Kms has an Exclusive Economic Zone (EEZ) extending to 2.02 million sq. Kms, and is a major marine fish producer ranking seventh in the world. However, inland fishery resources are equally rich and varied comprising rivers and canals (17,3287 Kms) flood plain lakes (20,2213 hectares), estuaries (28,5000 hectares), mangrove (35,6500 hectares), estuarine impoundments (12,35000 hectares), lagoons (19,0500 hectares), upland- lakes (72,000 hectares), reservoirs (31,53366 hectares) and ponds (22,54000 hectares) .

In India, the inland fishery is classified in to fresh water aquaculture and capture fisheries, in rivers, estuaries, lakes, reservoirs etc. The Ganga river system and its tributaries have a combined length of 12,500 kms and Brahmaputra is 4,023 kms long. The Peninsular rivers, Mahanadi, Godavari, Krishna and Cauvery cover 6,437 kms while the west flowing Narmada and Tapti of Western Ghats have a combined length of 3,380 kms. The catch from rivers does not contribute significantly to the total inland fish production in terms of volume, although a large number of traditional, artisanal fishers make a living on it.
State Scenario

The fishing industry occupies an influential and unique place in Kerala economy. Kerala with a total terrestrial area of 38863 sq.kms has a coastal line of 590 kms. The coastal sea is one of the most productive areas as far as fishing is concerned. The major share of exports in this sector from India is from Kerala. Fisheries contribute about 3 percent of the economy of the State. The current level of annual marine fish production is about 6 lakhs tones/ year. More than a million people belonging to the fishing communities live in 222 fishing villages in the marine sector in the State. About two lakh people depend on ancillary professions like processing of prawn and fish and marketing of fish for a living in Kerala.  

The general living condition and economic status of the fisher folk in the State is considered not on a par with the living standards of the general population of the State.

Objectives of the Study

The objectives set forth in the study may be broadly be stated as below:

1. To identify the problems faced by traditional inland fishermen:

   Inland fishermen in Kerala are living in poverty. There is an acute shortage of effective and remunerative employment in the fishing villages
of Kerala. The fishermen have to face much exploitation from various categories of people. So a detailed study on the output, income and employment is very essential. Efficiency of various catch practices, various types of crafts and gears used in inland fishing, expenses occurring in relation to the fishing are all matters, which come under the study.

2. To study the role of culture fisheries and Aquaculture:–

Aquaculture is a recent venture in inland fisheries. This could help integrated rural development by generating opportunities for many fishermen and unemployed people. A study on whether the impact of aquaculture and culture fisheries has any effect on the socio economic conditions of inland fishermen is highly essential at this time.

3. To study the economics of capture fisheries and the dwindling fish production in the economic condition of the inland fishermen:

The study seeks to investigate whether the various systems prevailing in capture fisheries and unconventional methods used in fishing, pollution of water bodies, overfishing, increased human intervention and resultant degeneration of the eco system have adverse effect on the availability of the inland fishes and that in turn on the economic conditions of inland fishermen.
4. To evaluate the economic aspects of marketing, role of middlemen, moneylenders, financial arrangements of fishermen etc:

Fish marketing concept, marketing intermediaries, marketing system and channels, marketing area, selling of fish, time of payment, preservation process, effort of price fixation etc. are to be studied in detail.

5. To study the standard of living of inland fishermen and their social status:

A detailed approach on the community structure of inland fishermen of Kerala, their status in the society, their assets and livelihood conditions, educational status, health conditions, involvement in socio-cultural activities etc. is to be made in this study.

Hypothesis:

- Traditional fishermen are facing much exploitation from various categories of people. They are under heavy debt.
- Labour class fishermen families are poor. The saving culture mentality is nil among inland fishermen.
- Fishermen’s living conditions are miserable.
- Culture fisheries in inland water bodies help in the upliftment of the fishermen.
The functioning of Co-operative societies does not favour the upliftment of inland fishermen.

Methodology:

The basic approach in this study is to adopt a combination between primary and secondary data collections and information pertaining the numerous spatially dispersed participants and institutions in inland fish economy, of Kerala. The method used for this is to design:

- Questionnaires
- Case studies
- Systematic observations based on regular visits and long discussions with the participants.

Survey Methodology:

Population:

Population consists of all inland fishermen in Kerala. Since the universe is very large and the geographical area is wide, the researcher attempts a sample survey in this study.
CHAPTER II

REVIEW OF LITERATURE

Kerala is one of the active maritime states in India. With its coastline about 590 km, which is around 10% of India’s coastline. Kerala ranks second in marine fish production of India, around 1.24 lakh MTs in the year 2010-11 and earned the income of 2002.10 crores. Around 1.85 lakh people are directly involving the marine fishing activity and 5,00,000 people are doing fishing contributing 21% to the total annual production. It makes a significant contribution to the national income through export of marine products. Fishing community is one of the important segments of the state’s population, as per the population census 2011, the fisher folk population in Kerala is estimated as 10.02 lakh, covering 7.71 lakh in the coastal area and 2.31 lakh in the Inland sector. Constitutes 3.1 percent of the state total. They are spread out along the coastal belt in over 222 fishing villages in 9 coastal Districts.

The traditional fishers who had no other employment option suffered as a community they continued to lag behind others in the rest of the state in all areas of development (Bindu George, 2011).
Fishermen mean the person who engaged mainly in fishing and related activities for their livelihood (Ambili C S, 2008). They are very close to nature and element of great risk to life make him as superstitious as he is generous and care free. The greatest asset of fishermen in Kerala is their accumulated Knowledge about the fish, fish habits, waves, currents and stars. They have a tradition of learning by doing, handed over from generation to generation (John Kurien, 1981). Family background influences mental ability of children through pre-natal and post-natal care, intake of food, and the ability to go through a sustained educational process (Bhagawathi, 1973).

To go to school implies keeping away from fishing. Most of the arts of fishing, particularly with traditional craft ad gear, can only by pick up through a process of learning by doing from young age. Consequently schooling on one hand result in putting the out of their traditional occupation (John Kurien, 1981) and also the dropout rate is higher in fisher folk. Mainly because of the reason such as :-

- Problem of crowding
- Health condition
- The Housing Problem
- Recreational Facilities
The Quality Life of Fishermen Community – A Micro Level Study

- Economic backwardness
- Behavioral issues
- Teacher-Student relationship
- Lack of Finance
- Inadequate facilities for studying
- Lack of parallel attention and encouragement from parents
- Influence of political party
- Mass Media Participation

- The high rate of unemployment among the educated children of fishermen have a negative influence on educational development (John Kurien, 1981)
CHAPTER III

SOCIO-ECONOMIC DEVELOPMENT OF FISHERMEN
- An Analysis

The State has 2,01,659 fisherman households in the 222 marine fishing villages (2010 survey). The fishermen of the state contribute about 10 percent of the GSDP from the agriculture sector which gives the significance of this sector to the state economy. The share of fisheries sector in the State Domestic Product has slightly declined from 1.54% (2005-06) to 1.46% (2012-13). Sea food export shows a promising trend from Rs.951 Crore (2002) to Rs. 4706.36 Crore (2014). As per the population census 2011, the fisher folk population in Kerala is 10.02 lakh which accounts for 3% of the State population. There are about 2,24,606 people employed in marine fishery sector of which 1,40,222 are in active fishing, 71,074 in secondary activities and 13,310 in tertiary sector. The secondary sector includes the allied workers and the tertiary sector includes the middlemen and the boat owners. They provide cheap protein to the people of Kerala. Average consumption of fish by the people of Kerala is 23.5 Kg/annum against national average of 9.4 Kg/annum. It may be the reason in attributing more longevity of the people of Kerala.
The socio-economic indices like education, employment, infrastructure development, recreation, means of ownership, per capita production, income and expenditure pattern has undergone rapid changes since independence all along Kerala. While we consider fisher folk, they remain isolated from the main stream of development. The constitution of India under article 38 provides “State to secure a social order for the promotion of welfare of the people” and article 43 provides “living wage…. for the workers”. Both of these directive principles of State Policy are being denied to fisherman. The per capita income of fishermen is only Rs.50,491/annum against the State average of 99,977/annum. From the survey conducted by State Planning Board, it is revealed that 64.1% of fisherman family is below poverty line and 41.43% of the workforce is unemployed.

The sole dependence of people on marine fishery for their livelihood itself is a major challenge. The stock of resources is reported as depleting and the resulting conflict prevails between the traditional fishermen and the capitalists. The policy connected with deep sea fishing is allegedly making distress to fishermen. All this indicate that the future of fishermen will be in darkness. Most of the fishermen are severely indebted, addicted to alcohol & drugs, under educated and lacking skills for alternate employment. It helps occasionally in mushrooming of the
illegal activities and attracts more and more unemployed youth. Darkened expectation in life, illiteracy, lack of awareness & counselling support, rising influence of alcohol and drugs, rise in communalism and criminal tendencies, etc. are some of the reasons for such social issues. On a whole, backwardness becomes the hallmark of fisherman. This vicious circle of poverty needs to be broken so that a virtuous circle of prosperity is set in motion by 2030.

I. PRESENT STATUS, SCOPE & CHALLENGES

Socio-Economic development refers to the increase in the per capita income and enhancement of living standard. Economic growth invariably reflects the social status of the community. Contrary to that in the case of fisherman, even though the marine fisheries development came about for the last four decades put more money in their hands; the social standard of living doesn’t show any appreciable improvement. It was due to the fact that, fisherman had been exploited by middle man. The schemes implemented by the State Government to improve the socio-economic status of fishermen can’t also completely reach to the fisherman. The economic development of fisher folk is mainly correlated with fish catch, its beach price, number of effective man days, fuel cost, expenditure pattern, education status, health care etc.
1. **Fish catch**: - Kerala is estimated to have a catchable fish resource potential of 7.5 lakh tonnes. Marine fish production was stagnant over two decades till 2008 and now shows a declining trend from 5.86 lakh ton in 2008 to 5.22 lakh ton in 2014 due to increased fishing effort and juvenile fishery by the ring seiners. It can be controlled by regulating number, size and power of fishing units and diverting the existing fisherman to other livelihood sector.

In this complex situation, only limited scope exists for further enhancement in marine production from inshore waters. Marine fish production can be enhanced by sustainable means of conservation and management measures, exploitation of oceanic fish resources, establishment of artificial reef and mariculture. Even though there are provisions to regulate fishing under Kerala Marine Fisheries Regulation Act, it is not implemented effectively due to various reasons. The present schemes on Conservation and Management can be implemented more effectively by ensuring the participation of local people. Awareness programmes to fishermen may be given on the management of fishery resources, potential, sustainable use, growth overfishing, recruitment overfishing and sustainable use of the resources. It will enhance fish catch and thereby profit.
1. **Investment on fishing implements**: - The unhealthy competition among the fishing units for the limited fish resources has resulted in overcapitalization of the sector and made fishing a non-economic activity. Introduction of larger fishing vessels with high-powered engines and larger fishing gears have enhanced the venture cost considerably. The per capita investment on fishing implements per active fisher folk in motorised sector escalated from Rs.26,000 in 2005 to Rs.98,000 in 2011. But, net annual labour earnings per active fisherman for the same sector came down from Rs.50,491 in 2005 to Rs.16,520 in 2013. Investment on fishing implements can be reduced by effectively evoking the provisions under KMFR Act. It will make fishing a profitable venture by shortening both capital and recurring expenditure.

1. **Auctioning & Marketing**: - The exploitation of fisher folk by the middlemen during auctioning is attributed as a major reason for their meagre income. The fisherman could realize only 60% of the market value as the beach price. The significant difference in the prices of fish at the beach and market indicates the involvement of more intermediaries. Better prices can be ensured by reducing the intermediaries. The fisheries co-operatives can play a major role in this regard. The fisheries cooperatives affiliated with Matsyafed manage only 10-12% of the fish
catch for primary sale with the participation of 44,906 fishermen (2012-13) of 252 fisheries co-operatives. It can be observed that the fishing groups which have not taken loan from fisheries co-operatives is not participating in the auction conducted by them. It may be due to the collection of 5% auction commission of which 1% each is contributed to the auctioneer, fisheries co-operative society and Matsyafed and the remaining 2% as savings of the fisherman. The 1% contribution to Matsyafed may be discontinued by compensating it with special grant by the State Government for meeting their administrative cost. Besides, production bonus can be given to attract more fishermen in the auction system practiced through the fisheries cooperatives. To ensure more price realization to the fisherman, regulated fish auctioning and marketing can also be enforced by legislation.

1. **Occupational status of fisherman:** - The number of fishermen population enhanced from 6.40 lakh in 1980 to 10.02 lakh in 2011. The average family size reduced from 6.4 (1980) to 5.0 (2010). Age distribution of fishermen is given below. It is seen that large section of the fishermen belongs to the productive age groups, between 20 and 60. Even then the dependency ratio is 1:4, because, 41.43% of the work force remains unemployed. Contrary to the previous period, most of the new generation abstain from fishing even if they could not
find a job outside fishery and tends to remain unemployed. Except in Thiruvananthapuram and Malappuram district, new generation of fisher folk is showing tendency for moving towards coolie works. This trend is initiated after the hope emanated from the booming gulf migration. Regarding Gulf migrant fishermen, 33% is employed in fishing activities and 50% in coolie activities. Secondary level education and lack of vocational competency fetch them a very meagre salary of Rs. 10000/month.

Effective fishing days of fishermen per week have been reduced from 6/7 days to 3/4 days. But, most of the fishermen aren’t considering the NREGS as a means of alternate employment. Sea-wall repairing, cleaning of beaches, planting mangroves/trees for shore protection, reclamation of ponds and formation of bunds can be included under NREGS to provide supplementary income to fisher folk at least during the non-fishing days.

Presently, only 1/4th of the existing active fisherman only is required for exploiting the available fish resources. The remaining fisher folk can be effectively deployed for other livelihood sectors after providing skill training and capital support. Even though, they may face problem in other fields of occupation, it can supplement them with additional income rather than idling during non-fishing
days. It can stabilize the already congested fishing sector and enhance their per capita income.

5. **Occupational status of fisherwoman:** - In a deprived community with meagre income, the role played by women member in securing the livelihood of their family members is quite significant. The trend noticed among a part of the fisher folk families is that the fishermen will generally squander the money they earn on the same day itself forcing the women to run the family. Among the total fisherwomen of 3,03,194, around 1.70 lakh fisherwomen are in the age group from 25-45 years. Out of this, around 50,000 fisherwomen are involved in fish vending and allied activities like auctioning, peeling, preprocessing etc. After the hazardous attack of tsunami on the Kerala coast on 26th December 2004, Government of Kerala has initiated many sustainable livelihood programmes under Tsunami Emergency Assistance programme (TEAP) and Tsunami Rehabilitation programme (TRP). An agency, Society for Assistance for Fisherwomen (SAF) was evolved specially for providing livelihood support to the youth fisherwomen of Kerala. The venture was a great success and 21,671 fisherwomen got assistance for alternate livelihood activities and 60% of them lead an average life today by earning an additional income. The average monthly net profit is calculated as Rs.3862. The
remaining one lakh fisherwomen are presently idle and they would have been provided with alternate livelihood opportunities. The additional income realized by the woman member of the family will in turn accelerate the process of socio-economic development.

6. **Indebtedness**: - Due to uncertainty and seasonal nature of occupation, poor income level and lack of money saving habits, fishermen are often obliged to borrow money for various purposes. Loan facilities are not availed to the illiterate fishermen from financial institutions due to lack of awareness, incapability of providing collateral security and inherent non-repayment characteristics. Hence, they depend on informal money lenders to meet day-to-day expenses at exorbitant rate of interest of 5-10% of daily catch. It leads them to lifelong indebtedness. Still, there is practise of bonded labour system for obtaining debt from the owner of the fishing vessel by pledging their labour. If the fisherman owns a fishing unit by taking informal credit and fails to repay the amount, they are forced to mortgage the fishing implements to the creditor, the middlemen or sell off. Both middle man and educated fisherman enjoy loan facilities from banks and Cooperatives societies. As per the primary survey 2008, it was reported that 69% of fishermen was indebted and the per capita debt was Rs.75,000. The Kerala Fishermen Debt Relief Act, 2008 greatly
become the backing to it. Most of the fisherman incurred debt for the purchase of fishing implements and for housing. The Kerala Fisherman Debt Relief Commission has recommended for waving the debt of 70,363 fishermen. The estimated quantum of debt during 2010 was Rs.600 core which is almost similar to the debt of Rs. 15 crore incurred by fishermen during 1980. It attracts serious intervention of the Government to protect the fisherman from being fall in to the debt trap again. The cooperatives have to be strengthened to meet the credit needs of fisherman taking into account of the incapability of the fisher folk to find out collateral security because of landlessness. All the active fishermen shall be brought under the umbrella of fisheries cooperatives. More fisheries cooperative societies may be formed, if required. Hesitation of nationalized and scheduled banks to provide loan to the fishermen has to be considered seriously. There are 780 fisheries cooperatives functioning in the State but lion share of the active fishermen are outside the institutional mechanism of fisheries co-operatives. This may be due to various political reasons. The remaining active fisherman shall be linked with the present cooperatives or organized by creating new cooperatives. Erosion of income as exorbitant interest can be prevented by providing more credit support to the fisherman through the co-operative sector.
7. **Saving habits**: - The fisher folk, by nature, don’t save money and spent it on the same day itself by mismanagement and over expenditure. In the days of no catch, fisherman demands cash for alcohol from their wife. This may further lead to miserable situations at home and their children especially the school going, are often the victims of this domestic violence. Erosion of income can be prevented by promoting money saving habit. Saving cum Relief scheme is being implemented to enhance saving habits of fisherman which would make them confident in repaying the loans and also serve as a reserve in the lean season. There were 183,917 fishermen who enrolled under the scheme for the year 2013-2014.

8. **Income & Expenditure pattern**: - Even though per capita income of fisherman is Rs 50,491, it is very pity to note that 90% is of total fishermen population has a per capita income of below Rs. 8280. This meagre income is neither proportionate to their hard work nor to the working hours of more than 12 hours. Their earnings are far short of their expenditure. Erosion of income as interest is the most challenging area. Fishermen spend 60% of their income for food while, general population of Kerala spent 42% of earnings for food. The expenses for domestic goods are 15 times lower among the fisher folk. But the amount spent for alcohol is four times higher among
fisher folk than rural Kerala. As a custom, each fishing unit diverts a portion of their earnings for alcohol consumption. More than 50% of fishermen in Thiruvananthapuram and Alappuzha districts are habitual drinkers, while it is only 27.1% for all fishing villages together. A change in attitude and behavioural pattern is necessary to reform the society. It is clear from the pie diagram that only 69% of total fisher folk take three times meals in all the days of a week. The rise in kerosene cost further worsened the situation.

9. Education & Literacy: - Education is the foundation stone of human development and it shapes the individual to fit to be a member of the ever-changing modern society and is one of the main tools for socio-economic development. Educating the new generation of the fisher folk is the fundamental solution for poverty reduction. While it isn't a magic pill to solve the problems of the world, it is a ladder that can be used to climb out of poverty, exclusion and ignorance. Education makes a person more efficient in using the available financial resources. The educational scenario in Kerala is far advanced than other states of India. Likewise, educational rate of fishermen population enhanced from 23.2% (1980) to 72.80% (2005), but the rates of drop outs in primary classes remain in between 12-15% over the last 40 years. Regarding secondary level education, it is received
by only 25.56% of total fisher folk; others were forced to involve in fishing from a very early age of 12 years onwards for assisting their elders. Hence, it is highly important to provide awareness to the parents about the importance of education and its magical transformation role in moulding the future generations. A proportion of students from fisher folk having study facilities at home have enhanced from 30% in 1979 to only 34.21% in 2009. Even though the general population of the State is attaining remarkable change in technical/professional education in the last decade, fishermen population stay aside without any interventions. Nonetheless, in higher education above the higher secondary level, and especially, in the post graduation, technical and professional education, the community depicts a more distracted situation. It may be due to the lack of reservation for admission as well as employment to the children of fishermen. Hence, sufficient scaffolding has to be given to the students from fishermen family so that they may be able to compete with general population. In such a predicament, a concerted effort is to be made urgently to bring up the fisher folk into the educational standard of the general population. The children of fishermen may get better employment in other sector if better education facilities are given to them. The details of financial
assistance on education provided by the State Government to them for
the year 2014 are given below.

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower primary</td>
<td>19,237</td>
</tr>
<tr>
<td>Upper primary</td>
<td>21,778</td>
</tr>
<tr>
<td>High School</td>
<td>31,979</td>
</tr>
<tr>
<td>Higher secondary</td>
<td>11,099</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>5101</td>
</tr>
<tr>
<td>Professional degree</td>
<td>922</td>
</tr>
<tr>
<td>Post-graduate degree</td>
<td>640</td>
</tr>
<tr>
<td>Doctorate study</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>706</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91,466</strong></td>
</tr>
</tbody>
</table>

There are 246 lower primary schools, 122 upper primary schools,
58 high schools and 62 higher secondary schools existing in the fishing
villages. It is pity to note that 123 marine fishing villages have no facility
under Government or Aided sector for the high school education of
fishermen children in and around 5 Kilometre radius. Despite several
programmes for improving the educational infrastructure in the State, the
coastal villages, particularly the fishermen habitations have not received
adequate attention. Inadequate infrastructure, poor maintenance, lack of modern educational provision etc. are some of the deficiencies to provide quality education. The physical infrastructures of most of the coastal schools are abysmally poor. The plights of the Government Regional Fisheries Technical High Schools are also more pathetic. A peculiarity that can be observed in the coastal area is that the lion share of primary and secondary level education institutions in the coastal area are Govt. aided school functioning under the control of community organizations. The present intervention of Government for the infrastructure development of the school is restricted to Government schools alone.

These limitations can be addressed by improving the basic infrastructural need of education sector, by upgrading the present facilities of the schools in the coastal areas at par with other schools. Based on the survey report, 66 Government schools are under dilapidated condition. The State Government have already taken steps to renovate 65 schools in the coastal area. The schools having 2/3rd of the children of fishermen studying may be adopted for providing quality education with special care.

In the year 2011, 93.92% of Kerala population were literate. However the fishermen community of Kerala is an outlier to this trend. Average literacy among the fisher folk is just 85.84%. But for active
The Quality Life of Fishermen Community – A Micro Level Study

fishermen the literacy rate is still 60-70% since 1980. Regular reading habit continues with 18% of fishermen household and most of the subscription is only due to the compulsion by political parties or religious institutions. The pitiable level of reading habits makes the fishermen vulnerable to socio-political awareness and participation. It is more pitiable that more than 20% of fishermen population are unaware of various welfare schemes implemented by the State Govt. particularly fishermen of Thiruvananthapuram and Malappuram districts and northern parts of Kasargode districts.

10. Health- occupational hazards & insurance:- Poor housing conditions, non- availability of safe drinking water, lack of total sanitation coverage, improper waste disposal, unscientific drainage systems etc adversely affect the health of the fisher folk and 7.6% of them suffer serious health problems. Incidence of water borne diseases, skin diseases, cancer, tuberculosis, stroke, paralysis, filariasis, mental disorder etc are considerably high in coastal area compared to the general population. The frequent occurrence of water borne diseases like diarrhoea, dysentery, cholera and typhoid are clear indicators of the poor health and sanitary conditions prevailing in the area. The fisher folk also succumb to their job oriented ailments like rheumatism, body pain and
gynaecological problems. This situation reduces the number of effective working days and life span.

Many of fishermen are marginalised from the public health care systems. For meeting expenses connected with medical treatment and delivery, they rely on local money lenders with usurious interest rate. There are cases that people stop treating the disease, after sometime when they think that the expense exceeds their financial capacity. On an average, people spend Rs.500-3600 for acute diseases and Rs.7,000 to 15,999 for chronic diseases. Medical insurance is taken by only 35.82% of total households. No health facilities are available for 85.1% of fishing villages in the vicinity of 2 KM radius. The existing coastal health centres have poor infrastructure facilities and the doctors are often hesitating to work there. Recently the State Government has taken up steps to provide adequate infrastructure facilities to 54 existing hospitals.

Excessive consumption of liquor and its addiction is quite widespread in the coastal area, which has also become a major health hazard and is the root cause of the socio–cultural impoverishment of the community. Persons having the age of 60 and above just constitute only 6.19% indicating the lesser longevity of the fisher folk. Effective man days and longevity of fisherman can be enhanced by ensuring good health. Good health care to fisherman can be assured by providing
sufficient man power and infrastructure facilities in the coastal hospitals. Conduct of extension programmes, medical camps with continuous follow-up and tie-up with super speciality hospitals may ensure good health care to fisherman.

11. Anganvadi: - Cases with birth weight less than 2.5 Kg is 26.7% among fisherfolk against the state average of 16.1%. It indicates abysmally lower level of nutrition of pregnant mother. In the absence of proper functioning of anganvadi in the coastal areas, the elder child is forced to remain at home as baby sitters when their mothers go out for work. The anganvadi mainly aims at the comprehensive development of the child, right from parental period through infancy to childhood, by a series of coordinated activities of Nutrition, Health and Education services. In order to effectively achieve the goal, the anganvadi should be child friendly and attractive. Most of them require toilet, drinking water, electricity, toys, teaching aids, construction of compound wall etc. From the survey reports 2010, it is noted that 810 anganvadi require new building. During the first phase, 58 anganvadi were selected by the State Government for providing new building.

12. Risk & Vulnerability: - The peculiar oceanographic and climatic conditions increase the casualties of lives and properties of fishermen particularly during monsoon. According to FAO, the marine fishing
industry is one of the most accident prone occupations. The annual death rate while fishing is 20 times higher than the overall occupational fatality rate. In the year 2014, it is reported that 101 fishermen lost their life while fishing at sea. In this context the Government is giving greater attention for risk mitigation by providing sea safety equipments, conducting sea rescue operations and providing life and accident insurance coverage. There are no effective programmes to address the damage caused to fishing units due to adverse climatic factors. The present fishing craft insurance scheme seems to be not attractive to the fishermen. Most of the fisher folk settlements are not far from the sea shore which causes chances of damage to the houses and washing away of land during rough seasons.

13. Housing: - Issues on housing in the coastal belt has certain specific features. Poverty is the critical reason for poor housing conditions prevalent in fishing villages. The survey conducted on 2010 reveals that 16,359 fishermen are dwelling in thatched hut/shed and 12,850 are both land less as well as homeless. The housing pattern of fishermen with that of general population is given below,
The number of thatched huts has reduced from 48% (1981) to 18% (2009). Though there is absolute improvement, the relative position with State is worse. During the last four years, Government assistance was given to 6573 number of fishermen for constructing new houses. A sizeable fragment of housing assistance are enjoyed by middle man from fisher folk who built houses worth around Rs.30 lakh after receiving the assistance of Rs. 2 lakh. It can be prevented by fixing maximum plinth area of house and the person selected as beneficiary should have completed a minimum of five years of marriage.

Possession of land among the fisher folk is a critical problem. When new housing schemes are announced by the Government, the landless fisherman becomes unable to get the assistance. Regarding land holding, only 35% have more than 5 cents of land. In the coastal parts of
the State, the density of population is around 2168 persons per square kilometre whereas the State average is 819 persons which resembles to the slum of urban area. The attitudes of fishermen against migration to other areas due to occupational, religious and communal reasons have changed after Tsunami disaster.

The CRZ notification also adversely affects housing of fisher folk. Fishermen household of 58.4% are residing within the area of 100 meters from sea coast where new construction or replacement of existing houses are restricted. It is more pronounced in Thiruvananthapuram and Malappuram districts where it is 84.6% and 79.8% respectively. In the area between 100 M and 200 M from shore where reconstruction is only permitted, where 24.7% of total fishermen households are residing. In between 200 meter and 500 meter and beyond 500 meter it is 13.5% and 3.4% respectively. The distribution pattern of fishermen household along the coast is shown below.

On an average, 5000 fishermen houses become ruined every year due to surge or tempest during monsoon seasons. The fishermen often are not capable for repairing it. It is estimated that 92,426 houses have to be repaired urgently. During the last two years, Government assistance was given to 2000 number of fishermen to repair their houses.
14. **Sanitation & Hygiene**: - Occurrence of food poisoning and other contagious diseases are more outstanding in coastal areas. It is due to disposal of human excreta as carelessly as possible; defecation takes place in the open fields or surface waters including sea. In some areas, fishermen lack not only the means to provide such facilities, but also the very information on hygienic aspects. Around 31% of fishermen household has latrines with septic tank while 29% have pit latrines and the remaining 40% depends on public comfort station or perform open defecation. As per 2010 survey, there are 23,335 households without any type of toilet facilities. Financial assistance and awareness is required to alter this pathetic situation. During the last three years under various Government projects, 12,000 new toilets were constructed. It is proposed to provide assistance for new individual sanitary latrines/ prefabricated septic tanks for the existing pit latrines where ever it is feasible. In a few cases where the fishermen habitats are congested, community latrines can be considered.

The coastal environment gets polluted with the waste carried away from the upstream as well as that thrown into the sea shore. Nowadays, it is quite common to see that most of the beaches and coastal waters are heavily polluted with solid waste including plastic materials. In the coastal area, there is no effective functioning mechanism for management.
of the solid waste. It is proposed to establish eco-friendly solid waste disposal system by biological means for degradable materials and disseminator for non-biodegradable materials.

Drainages play a multi-dimensional role in maintaining the hygiene and sanitary conditions in the fishing villages. They also prevent water logging during monsoons. Absence of proper drainage system can result in aggravating the ill-effects of water logging, which will make the life of the fisher folk quite miserable. There are about 90 fishing villages which lack proper drainage facilities. Total sanitation program is essential for the entire fishing villages of the State to keep the fishing villages under good sanitary and hygienic conditions.

15. **Drinking water facilities**: - Issues connected with drinking water facility are complicated. The drinking water facility is improved from 33% in 1981 to 46% in 2009. Scarcity of safe drinking water is a critical natural problem in fishing villages as the proximity to saline water makes the ground water unsuitable for human consumption. In many fishing villages higher content of ferrous and higher count of coliforms makes the ground water unsuitable for human consumption. Water from open wells suitable for drinking purposes is available only in 38 fishing villages. Other fishing villages depend on public water distribution system which is available at a few corners but with erratic water supply.
The survey report, 2009 revealed that there are 31,523 houses with no access to potable drinking water. There are about 117 fishing villages which are in urgent need of drinking water supply which have already been taken-up by the Government through Kerala Water Authority.

Most of the drinking water projects commissioned for coastal area are not functioning well. In some places, capacity of pumping station and overhead tank is seen as not compatible with respect to quantity of water demanded by the project area. In some cases, old pipe lines aren’t in a position to withstand higher water pressure. Lack of servicing the motor pumps is also a major reason for the failure of the project. Jalanidhi project failed in the coastal area, since the operation and maintenance has to be met by the user community. In a few fishing village, rain water harvesting project has been introduced, but due to mismanagement and people’s sceptic perception on its quality, it is not in working condition. These issues can be addressed by implementing a Comprehensive Drinking Water Supply Project including the establishment of de-salination plants under the ownership of KWA.

16. Electrification: - There are remarkable changes in the proportion of electrified houses from a mere of 10% in 1981 to 93% in 2009. It is reported that there are about 12,562 houses still nonelectrified in the
fishing villages of the State. Low voltage and voltage fluctuations are the common problems faced by the inhabitants of the coastal area. Establishment of transformers along with line extension/ conversion is required. Government has taken-up 65 projects to address the issues through KSEB.

17. Post-Harvest Management facilities: - Inadequate chilled storage facility and poor fish handling onboard and at the shore leads to distress sale and there by lower the value for catch. No technology adoption is practiced for value addition of trash fish. More prizes can be ensured by establishing facilities for chilled storages and value addition. Steps have been initiated by the Government to provide chilled storage facility to 22 fish landing centres and value addition of low valued fish verities.

18. Roads & Culverts: - The primary survey 2009 indicated the need for construction of all weather roads to an extent of 583.48 kilo meters across nine coastal districts. Even though an amount of Rs. 50 Crore is being spent annually by the Government, the reflection in the coastal village is not promising due to the flow of funds to the mid-land and high-land. Formation of coastal roads shall be restricted within the boundaries of fishing villages with the nearby service road.

19. Old age fishermen: - Presently 53,250 old age fishermen are being provided with a monthly pension of Rs. 500 per month which gives a
consideration for them in the family. The socio-economic backwardness leads to lesser attention towards old age people and create destitute. With the meagre limited income, the fisherman is compelled to pay more attention to the younger members of his family. Hence, older people are deprived-off and are not treated even if they are diseased. Even though the prevailing situation demands for old age homes, it is not advisable since it would magnify the present issue. A monthly geriatric care unit may be established to reduce the issue to some extent.

20. **Other Social Community amenities:** Fishing villages need common social facilities such as community hall, library, reading room, recreation centre, play ground, etc for the development of both social and psychological growth of new generation. Now, constructions of 37 libraries were initiated by the Government.

21. **Extension Support:** There have been improvements among fishermen from their respective previous levels, but still lag behind the general population. Even after implementing many schemes for the socio-economic development of fishermen, the achievements are not promising as we expected. It may be due to lack of proper planning, wrong selection of beneficiaries, non-participation of community and deviation from guideline during implementation. In the fishing villages of Thiruvananthapuram and Malappuram districts, the very information
about welfare programmes are not reaching to the real beneficiaries. Hence, a full-fledged extension support and awareness campaigns are required which are essential to ensure the outcome of the community development programme as a success. It can motivate and help to reduce the number of drop outs from school classes and in curing diseases. The educated youth of the same fishing village can be engaged to provide continuous extension support after giving intensive training.

Grass root level socio up-liftment programmes for a refined living and awareness about the need of money saving, alcohol de-addiction, parenting, family bond etc to fisherman; importance of self actualization and self earnings to fisherwomen and need of education, focus in life and human values to the children shall be conducted.
CHAPTER IV

RECOMMENDATIONS

• Steps should be taken to enhance marine fish production through sustainable means of conservation and management measures, exploitation of oceanic fish resources and mariculture.

• Investment on fishing implements shall be reduced

• Better price can be ensured by establishing chilled storage facility at all fish landing centres and by reducing the intermediaries in the marketing chain. Fish auctioning and marketing may be regulated

• Sea-wall repairing, cleaning of beaches, planting mangroves/trees for shore protection, reclamation of ponds and formation of bunds can be included under NREGS to provide supplementary income to fisher folk

• The excess workforce in the fishery sector can be diversified for alternate livelihood activities after providing skill training with capital assistance.

• Microenterprise activities in allied fisheries activities should be encouraged

• Skill training can be imparted to Gulf migrants
• Proper scaffolding should be given to the fisherwomen who are presently idle and equipping them to undertake alternate livelihood opportunities.

• The cooperatives have to be strengthened by bringing all the active fishermen under its umbrella and it should be capable of meeting the credit needs of fisherman.

• Initiate awareness programmes to change the attitude of fishermen about the pattern of saving and expenditure.

• The debt incurred by fisherman up to 2008 may be waved urgently by strengthening the activities of Kerala Fisherman Debt Relief Commission.

• Programmes should be addressed at the grass root level to liberate the fishermen from the habit of alcoholism/un authorized drugs.

• Effective strategies should be taken to ensure 100% enrolment for education at the age of 5 plus and arrest dropouts at least up to the higher secondary level and the community should be made aware about chances of socio-economic development through education.

• Study centre for the students of fisher folk should be established so that proper and effective study habits are developed and educational interest maintained with the help of extension staff.
• Selected coastal schools may be adopted to provide more focused quality education
• Promote higher education prospects by giving more financial assistance and reservation avenues.
• Promote regular reading habits among fisher folk by establishing libraries or reading rooms.
• Special coaching program can be imparted to the youth of fisher folk for various competitive examinations.
• The inborn capacity of fishermen children in sports can be developed.
• Infrastructural facilities of Anganvadi should be strengthened for their efficient functioning.
• Ensure adequate manpower and infrastructure to Government health centers
• Each fishing village should have a health sub centre
• Health insurance scheme should be facilitated to the fishermen with tie up with super specialty hospitals
• Conduct of health awareness program and medical camps along with continuous follow-up
• Financial assistance to fisherman may be given to construct new houses to 9000 fisherman families and to repair the existing dilapidated houses

• Special dispensation for fishermen from CRZ notification is a must to construct new houses

• Considering the scarcity of land along the coastal area, multi storeyed residential complexes are suggested for 11,000 land less people.

• Total sanitation program may be implemented for coastal area with a consolidated effort to construct public comfort stations and household latrines

• Comprehensive drinking water projects shall be implemented including the establishment of desalination plant to resolve drinking water problem

• Formation of coastal roads shall be restricted within the boundaries of fishing villages with the nearby service road

• A monthly geriatric care unit for the old age fisherman may be established.

• Ensure insurance for fishing implements.

• The realization of auction commission by Matsyafed may be discontinued by compensating it with special grant by the
Government for meeting their administrative cost. Production bonus can be given to the fisherman who participates in the auction.

- Four more fisheries stations may be established in Alappuzha, Thrissur, Malappuram and Kasargode.
- The scheme implementation shall be focused on fishing village rather than revenue village or Panchayath.
- The mode of fishermen registration shall be reviewed and should formulate a more transparent procedure to prevent erosion of Government assistance.
- Family card can be prepared for all fisherman family after conducting a comprehensive survey.
- Awareness for active participation of fishermen in decentralized governance system shall be created.
- Matsyabhavan should be made functional and special extension support shall be ensured.
- A Fisheries Sub Plan (FSP) shall be provided in the State budget to the tune of 2% of total plan outlay for the exclusive development of fisheries sector.
References


3. Ambili C S (2007), educational performance of marginalized group- a case study of traditional fisherfolk in Kerala, Kerala University, Trivandrum

4. New directions in Fisheries, A series of policy briefs on development Issues (2005), Food and agricultural organization of United Nation, UN

5. School Dropouts among Marine Fishing Community of Malabar – A Situational Analysis (2002), Malabar coastal institute for training research and action (mcitra)


7. Dhanuraj D (2004), Traditional fisher folk in Kerala and their livelihood issues, Ccs Research Cell, New Delhi


17. Socio techno economic survey of fisher folk in Kerala 2004 published by Department of Fisheries, Government of Kerala