Chapter 1

INTRODUCTION

Fisheries sector is significant for the Indian economy. India has about 10 % of global fish diversity. India has a share of 6.3% of global fish production. A long coastline of 8129 km together with other inland water sources enables the sector to contribute about 1 % of our total Gross Domestic Product. Fisheries sector constitutes about 5 % of total agricultural GDP. Traditionally Fisheries sector in India has been demarcated into two broad categories such as marine and inland fisheries. The share of marine fisheries in total output has been falling significantly over the years compared to inland fisheries which constitute 65% of total produce.

In real terms, fish and its value added products constitute the largest exported agriculture product in India with a value of more than Rs 30,000 crore per annum. It accounts for more than 3% of the total exports of our country. There are seven major fishing harbours; 52 commissioned and 31 under-construction minor fishing harbours; and 181 completed and 29 under-construction fish landing centres in the country. There are hundreds of other small traditional landing centres along the coast. Fisher folk in the country number to more than 4 million living in 8,74,749 families. Andhra Pradesh, West Bengal, Gujarat, Kerala and Tamil Nadu are the top fish producing states in India.

It is estimated that there are 2.4 lakh fishing crafts operating in the coast. According to International Collective in Support of Fish workers, total number of full time fishermen in India is currently just 0.90 million, much lower compared to1.7 million in 1990s. Recent emphasis is on the shift from conventional means of capture to sophisticated and applied means that could lead to better yield. The market value of Fish products are on the rise, when they are served in plates or packed tins; but still the social conception of Fishing as a primitive source of occupation remains untouched.

1.1 Marine Fisheries in India

Arabian Sea quaffing the western cost and eastern coast enriched by Bay of Bengal encompasses two large marine eco systems that fuel India’s Exclusive Economic Zone. We have 5 maritime states across the western shore such as Gujarat, Maharashtra, Goa, Karnataka, Kerala and two UTs - Daman and Diu and Lakshadweep. Likewise the eastern

coast covers Tamil Nadu, Andhra Pradesh, Orissa, West Bengal and Union territories of Pondicherry, Lakshadweep and Andaman Nicobar Islands. Though we have a unique 200 nautical mile long Exclusive Economic Zone, the kind of capture and vessels used are entirely different in both these shorelines. Western coast supports more than 75% of the total fish landings in India due to extended Continental Shelf. While the eastern coast adjoining Bay of Bengal, having a narrow shelf, has much lower fish landing compared to that along western coast.

According to the CMFRI Census 2010, there are 3,288 marine fishing villages and 1,511 marine fish landing centres in 9 maritime states and 2 union territories. It unveils the marine essence of Indian diversity. The total marine fisher folk population was about 4 million living in 8,64,550 families. Nearly 61% of the fishermen families fall in the BPL category. The average family size was 4.63 and the overall sex ratio was 928 females per 1000 males. About 38% marine fisher folk were engaged in active fishing with 85% of them having full time engagement. About 63.6% of the fisher folk were engaged in fishing and allied activities. Among marine households nearly 76% were Hindus, 15% were Christians and 9% were Muslims. And 17% of the total population were Scheduled castes and tribes.

The Indian coastline can be broken down into 22 zones, based on the ecosystem structure and functions. The Indian boat type ranges from the traditional catamarans, plank-built boats, dugout canoes, machwas, dhonis to the present day motorized fibre-glass boats, mechanized trawlers and gillnetters. In the marine fisheries sector, there were 1,94,490 crafts engaged in fisheries out of which 37% were mechanized, 37% were motorized and 26% were non-motorized. Out of a total of 1,67,957 crafts fully owned by fisher folk 53% were non-motorized, 24% were motorized and 23% were mechanized. Among the mechanized crafts fully owned by fishermen, 29% were trawlers, 43% were gillnetters and 19% were Dolnetters.

Fisher folk in the country rely almost entirely upon coast based fishing. Traditional fishing is not just an occupation for them, it is their ultimate means of survival on which they were born and their forefathers were buried. The marine fish production in the country gradually increased from mere 5.8 lakh tonnes in 1950 to 3.32 million tonnes in 2010, registering a six-fold increase.

The growth of Indian Fisheries sector can be divided into three prominent phases. In first one (1950-66) landing were mostly customary, non-mechanised and primitive. Traditional crafts such as hook and line, gillnets, seines, bag nets, and traps, from catamarans,

canoes and plank built boats were used in on a large scale. The Second phase (1967-86) starts with the impetus for motorisation; wonted vessels were replaced by outboard engines of 5-7 hp. Third phase (1986-2000) was the peak of mechanisation and the shift to industrial fishing had prompted fishermen to be better equipped to engage in multi day voyages. In the early 1990s, the fishing fleet consisted of 180,000 traditional craft powered by sails or oars, 26,000 motorized traditional craft, and some 34,000 mechanized boats.During this phase, extinction of fish species become a reality, and programmes like a seasonal closure of selected depleting varieties were introduced.

The fourth phase (Post modernisation) after 2000 witnessed depleting fish stocks, declining fish catch, increasing conflict over fish resources and mounting investment needs. Total marine fish production has climbed up to 34.91 lakh tonnes by 2014-15 from 27.7 lakh tonnes in 2004-05; though the general trend is rising it is not as smooth as the rise in inland fish production. The table above represents the growth of output in marine sector over the years at a declining rate.

Table 1.1

Decadal growth rate of Marine Fisheries in India

Period	Average landing	Growth
1950-1960	656844	_
1961-1970	832426	26.73
1971-1980	1259624	51.32
1981-1990	1702478	35.16
1991-2000	2408741	41.48
2001-2010	2773996	15.16

Trawling has emerged as the most important means through which demersal resources are exploited and accounts for half of the total Indian catch. Modern Industrial fleets consists of small trawlers, pair trawlers, purse seiners and gill netters, chartered and joint venture trawlers, tuna log liners and other multipurpose vessels especially designed to catch prawn and fish. The total number of trawlers has not only doubled, but its efficiency (engine horse power) has also gone up four times from 1980 to 1998. The medium trawlers undertaking multi-day voyages carry nearly a dozen different trawl nets each rigged differently and having different cod-end mesh sizes (15 to 35 mm) to target commercially high valued resources. Penaeid shrimps are the major stay of the trawl fishery; in addition Valuable

species such as Indian oil Sardine, Penaeid and non-Penaeid Shrimp, Indian mackerel, Bombay duck, and Croakers and various types of commercial finfish are also targeted. (P U Zacharia, 2003)

Government of India framed Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act in 1981 to regulate fishing by foreign fishing vessels in India's Exclusive economic zone. But the number of large trawlers has been rising over the years. Deep sea policy during its inception in early nineties had given way to serious protests but was reconceived later in favour of the local fishermen by rationing licenses to joint venture explorations. Closed season, Closed fishing areas, Marine Protected Areas (MPAs), Protected Species, Ban on certain destructive fishing gears and methods, Minimum mesh size regulation, Minimum legal size at capture, Use of Turtle Excluder Device (TED) in trawls in Orissa etc are means through which mechanised fishing is regulated in India. But concerns over the future of marine resources start haunting various interest groups across the globe. A World Bank study on India (India Marine Fisheries: Issues, Opportunities and Transitions for Sustainable Development, World Bank) concludes stating that the marine fishing subsector has the potential to develop a more valuable asset base by building more productive fish stocks to generate higher level of sustainable net economic, social and environmental benefit in the future.

1.2 Inland Fisheries in India

Inland fisheries in India constitute more than 65 % of the total annual fish production. More over inland fish production is increasing at an increasing rate for the last 2 decades. Inland fish production has almost doubled from 35.26 lakh tonnes in 2004-05 to 65.77 lakh tonnes in 2014-15. India's freshwater resources consisting of rivers and canals (197,024 km), reservoirs (3.15 million ha), ponds and tanks (235 million ha), oxbow lakes and derelict waters (1.3 million ha), Brackish waters (1.24 million ha) and estuaries (0.29 million ha) offer plenty of opportunities for inland fisheries.

Table 1.2

Annual Growth rate of Inland Fish Production in India

Year	Production (lakh tonnes)	Rate of growth (%)
2009-10	48.94	5.52
2010-11	49.81	1.78
2011-12	52.95	6.29
2012-13	57.20	8.03
2013-14	61.36	7.28
2014-15	65.77	7.30

In western India, aqua culture is operated on a large scale with watersheds of 15-25 hectares. In North it is open space cultivation but Southern India has transmuted its ponds, streams and rivers into nutritious grow bags with focus on enclosed cultivation. Various species of Indian Carps including Catla, Rohu and Mrigal contribute 70 to 75 % of the total produce, while silver carp, grass carp, common carp and catfish make up 25% to 30% of the production.

1.3 Marine Fisheries in Kerala

Kerala is enriched with a coastline of 590 km which tapers through 9 districts at the western coast of peninsular India with a continental shelf area of 40000 square km, intermeshed by brackish water lakes and estuaries. The total fish production in Kerala during 2016-17 was 6.76 lakh tonnes, of which marine fish landings accounted for 4.88 lakh tonnes and inland fish production was 1.88 lakh tonnes. Marine fish landing in Kerala has been falling continuously since 2011. In addition, total landings in 2016-17 were also much less compared to the previous year. The most valuable species caught from Kerala coast comprise of Seer fish, Prawn, Ribbon fish and Mackerel. As its share in total catch declines, level of income will also fall down. Total fishermen population in the state is estimated to be 1 million residing in 222 marine villages and 113 inland fishing villages. Marine fisheries accommodate 7.92 lakhs of workers and the rest is dependent on inland fishing. Both Alappuzha and Kannur having a coastline of 82 km each can claim to be the District with longest coastline in the state. At national-level, 66 per cent of the total fish production is contributed by the inland sector, however at the State level; the share of inland sector is only 28 per cent which is relatively low compared to the 72% share of marine sector. This

indicates excessive reliance on traditional fishing community as a key tool to unlock marine resources. Kerala holds 7 % of the water bodies in our country but its contribution to inland fisheries is relatively lower compared to other Indian states that capitalize on vacant spaces fishing.

The state exports fish products worth Rupees 1,200 Crores, and has domestic fish sales worth Rupees 600 crore annually, Together they accounts for roughly three per cent of the state revenue. As against the estimated maximum sustainable yield of about 7.5 lakh metric tonnes, the present level of fish production in the state is only 5.53 lakhs metric tonnes.

Fisheries sector contributes a substantial share to the gross state value added, but its exhibits a declining trend from 1.12% in 2011-12 to 0.95 in 2016-17. Primary sector also depicts similar decline from 15.27% in 2011-12 to 11.27% in 2015-16. Even though fisheries accounts for 8.5% of the gross value added in primary sector, overall figures are not satisfactory. Despite having the longest coastline, both Kannur and Alappuzha are lagging behind other district in terms of total landings. About 74% of the total marine fish produced in the state are from districts of Kollam, Thiruvananthapuram and Ernakulum, in which Kollam leads the list with long steps. Ernakulum, Alappuzha, and Thrissur are the leading districts in the case of inland fish production occupying the first, second and third positions respectively. But Kollam retains its spot as the top producer even after combining landings of both marine and inland fisheries.

A prominent export market has also been subsisting with marine fisheries in Kerala, of which Prawn, Shrimp and Squid determines how much export income does the state bag from marine exports. During 2015-16, export of marine products from Kerala was 1, 59,141 tonnes valued at 5,008.54 crore, an amount of high significance to national exchequer. Compared to the previous fiscal, a remarkable hike has been recorded in the quantity as well as value of exports from Kerala. However, the share of Kerala in the total export of marine products from India has fallen both in terms of quantity and value over the years. Basic reason for this downturn is the gradual decline in performance of marine sector on which the state rests its foot upon. Most important challenge faced by fisheries development in Kerala have been in evaluating marine resources and its capabilities in terms of fish production, optimisation of yield, harvest and post-harvest operations, landing facilities for mechanised vessels and segregation of potential output for value addition.

Commercialisation of fishing through increased mechanisation with eyes on maximum profit has changed the way in which fishing was perceived in the state. It was Indo Norwegian project which evolved new kinds of crafts and gears and fishing methods and introduced them in Kerala. Gillnets, and trawl nets became popular. Cotton nets were replaced by nylon nets. Similarly local varieties of floats and weights were replaced by plastic/rubber floats and zinker weights. The fishermen and activities outside the realm of Indo-Norwegian Project were mostly unaffected. With the initiation of five year plan, fisheries sector also moved into the domain of a planned development (Kurien J, 1985). Small mechanised vessels intruded the shore for the first time in late sixties. Later on fishing is rapidly extended to continental shelf area, which remained previously unexplored. In the Nineteen Eighties, motorization of country crafts acquired popularity and by employing these crafts with new gears, exploitation of marine fisheries was expedited. As fishing fleets increased in number, stagnation in fish catch was felt and question of sustainable fishing starts haunting policy makers. Modern Industrial fleets consisting of small trawlers, Pair trawlers, and gill netters had increased profitability and at the same time pace of devastation climbed up. But a stratum among fisher folk became wealthier immediately after mechanisation and started lending to fellow fishermen. As demand for credit started mounting, money lending emerged as a remunerative auxiliary for rich and gradually set a new social enclave with in the coast.

Demand for credit is high in coastal area mainly due to the urge for modernisation. Primitive vessels can no longer compete with the sophisticated ones, and traditional fishermen were embarked to shift to mechanised vessels for survival. Most of them lack fishing assets like mechanised vessels and nets of their own. Banks won't give loan to them as they lack any fixed source of income or necessary documents. As they arealienated from institutional credit, they are forced to rely upon informal credit systems with exorbitant interest rates (K G Karmakar, 1999). The total registered fishing fleet in the state consists of about 23,129 motorised crafts, 2,986 mechanised and 1,673 non-motorised crafts. As natural fibres were replaced by synthetic ones; system of informal credit has started to creep. This system has its own merits such as quick delivery and flexible repayment system however, clutches of high interest rates as well as exploitative terms and conditions regarding disposal of fish are inherent to this system.

After mechanisation in marine fisheries, concept of commercial fishing had gained momentum and some fishermen risked themselves by investing in speed boats and other

sophisticated channels in order to cope up with new dynamics of captive fishing. Value addition of fish and allied products had grown as a shining auxiliary to fishing industry, which had also demanded bulk investments especially for processing and storage. And this had led to the growth of new middle class among fishermen themselves and a new hierarchy defined by class started to dominate social relations, but majority of fulltime as well as part time fishermen live amidst a series of suffocating realities. What he carries in his shoulder is not just fishing net, its knotted meshes symbolises his broken desires which has to be fulfilled, when he returns from the roaring deep sea. Lack of availability of proper credit facility is one of the root causes for all other problems including mounting interest rates charged by private money lenders. Documentation, security norms and competition from sophisticated players along with risk to natural calamities are posting severe threat to the lives of poor fishermen.

1.4 Inland Fisheries in Kerala

Geographically, inland fisheries have great scope in Kerala due to the occurrence of 53 interconnected backwaters popularly known as kayals along with 44 rivers. The state is graced with rich fresh water and brackish water resources. The state holds a total estimated fresh water area of 3,32,000 ha comprising of tanks, reservoirs paddy fields, ponds, streams and rivers. Both 0.70 lakh ha of paddy fields from Kuttanad and other 1.20 lakh ha from Palakkad are two main source of inland fish production in Kerala. The paddy fields also comprise 17,000 ha of Kole lands distributed in Thrissur and Malappuram districts of Kerala and 35,000 ha of Padasekharam in Kuttanad spreading through districts of Alappuzha, Kottayam and Pathanamthitta. Of this, an area of about 1,000 ha is currently used for the culture of Scampi/fishes. Utilization of paddy fields for aquaculture will ensure the augmentation of fish/ prawn production in addition to paddy cultivation. And it leads to the creation of additional income for farmers especially in rural areas of the State. There are 12,500 ha of Pokkali fields distributed in Ernakulam, Thrissur, Alappuzha and Kannur districts which are traditionally used for prawn filtration when the water is mostly saline. The paddy fields such as in Palakkad have high potential for freshwater prawn and shrimp culture. These areas are hardly being used at present for aquaculture. And it is a fact that more than 77% of the brackish water sources in the state remain unused. Even though we have so much of resources available, total fish production in Kerala from inland sector, compared to rest of India is relatively low. The total number of active fishermen of the inland sector was

estimated at only 0.52 lakh**.** Thus various incentives are taken by government of Kerala to improve its performance in the inland fishing sector.

1.5 Statement of the problem

It is hardly possible for a fisherman to survive without diversified fishing assets under new circumstances of sophisticated fishing. Mechanised vessels, fishing nets, and motors are the basic infrastructure requirements, which can only be financed by borrowings due to the current condition of fishermen. So credit is a necessity for them to survive. Government of India has been following a strong policy frame work for the disbursement of rural credit. National bank for Agriculture and rural development (NABARD) was constituted to revisit entire credit packages to agricultural sector. Regional rural banks (RRBs) were diversified and a new cooperative credit structure was adopted. All these policy interventions haven't proved to be complete success in supplying sufficient institutional credit to fisher folk.

Excessive demand for credit worked as an impetus for spreading informal credit market in this area. High rates of interest are charged together with exploitative restrictions even for small delays. Growth of this informal system parallel has reduced the quantum of credit disbursed from commercial banks to coastal area. The affinity of fishermen community to non-institutional credit has been climbing up at a faster rate with growing demand for credit. In reality, a section of society which have been side-lined over the years, are being squeezed by money lenders by charging extreme rates of interest. The relative backwardness of the fishing community is aggravated due to debt trap and exploitation of money lenders. Expansion of formal institutional credit mechanism and wipe out of exploitative informal credit mechanism is essential to ensure progress and welfare in the fisheries sector.

1.6 Objectives of the study

This study primarily focuses on the livelihood of marine fishing folk to understand the reasons which alienate them from the premises of institutional credit to finance their expenses.

1 To examine credit profile of fishing marine folk in Kerala, its nature, composition and repayment

2 To evaluate major reasons for which marine fishing community of Kerala demand credit

3 To check whether there is a fall in the penetration of institutional credit among fish workers of Trivandrum. If so, find out the reasons for the falling rate of institutional credit among marine fisher folk compared to increased affinity towards informal credit systems.

1.7 Methodology

The fulfilment of above defined objectives requires adequate participation and information revelation from Fishermen community**.** This study rests upon both primary and secondary data, but primary data collected from coastal area is the principal component around which the entre study revolves. Secondary data is obtained from Government publications like those of Department of Fisheries, Government of Kerala, Economic Review published by Kerala State Planning Board etc. Sample from Thiruvananthapuram District of Kerala, which is the second largest producer of marine fish in the state, is used for the study.

There are 42 fishing villages in the district of Thiruvananthapuram with population varying in between 1000 and 13000.These villages are placed in 3 population brackets such as –

i) population less than 5000,

ii) between 5000 to 10000 and

iii) above 10000.

One random village is picked from each bracket forstudy. Vizhinjam North with a population of 12550; Mariyanad and Puthukurichy fishing villages of Kadinamkulam Grama Panchayat together with a population of 8480; and finally Kochuveli with a population of 2890 are selected. The combined population of these 3 selected villages is 23,920. The sample size from the district is 150. Number of samples from each village is determined by its share in the total population of these three villages. Among these three villages 52.54% of people live in Vizhinjam. So a representative sample of 79 is collected from Vizhinjam. 53 samples are taken from Mariyanad-Puthukurichy, as it encompasses 53% of sample population. 18 samples are taken from Kochuveli since it covers the remaining 12.06% of representative population.

Active fishing folk population in the district as per 2013 statistics is 51988, of which 37,584 are male and 14,404 are female. The male – female ratio can be approximated as 3:1. This ratio is applied while collecting samples from above mentioned fishing villages.

Accordingly, 27 samples from Vizhinjam, 18 from Mariyanad- Puthukurichy and 6 from Kochuveli are fisher women.

Primary data is mostly collected by personal interviews and surveys. The data thus obtained is recorded, classified and analysed.

1.8 Significance of the study

This study is primarily focusing on the penetration of institutional credit in Fishermen community. Demand for credit has been increasing consistently over time, but not the supply of institutional credit. Most of the fishermen rely on informal credit markets to finance their expenses. The reasons for this kind of an alienation from institutional credit is still unknown. Studies in this direction are relatively less compared to that of farmers. People are having a better picture regarding the credit issues surrounding a farmer than a fisherman, mainly due to the amount of valid knowledge produced in the former sector. What is attempted in the study is to find out the reasons for falling rate of institutional credit together with the increased affinity towards informal credit. The study acquires significance, because the insights will help understand the issue better and outcomes will help eliminate the exploitative practices.

1.9 Limitations of the study

This study is limited only to the selected sample of 3 fishing villages in Thiruvananthapuram District of Kerala. Other limitations that the study encountered is listed below -

- Getting accurate income figures was a problem as the fishermen were not in the habit of keeping accurate account statements.
- Some of the respondents were not ready to reveal the sources from which credit is expected to be repaid
- Time constraint also limited the depth of the present study.

Chapter 2

Penetration of Institutional credit among fish workers of Thiruvananthapuram District

2.1 Background of the region selected for study

Trivandrum has the third largest coastline in Kerala, which stretches along the shores of the Arabian Sea for a distance of 78 km and it constitute 13.22% of states total coastal area. There are 42 fishing villages in the district with a fishermen population of 2096 per km length and a total landing of million tonnes. Marine fisheries constitute most of the total output produced in the district.

2.1.1 Vizhinjam

Vizhinjam is known for its large harbour which can accommodate more than 100 boats at a time. It is cleaved into north and south on the basis of Christian (3054) and Muslim (1050) majorities respectively. The total number of artisanal fisher folk families residing at Vizhinjam is 4110. The total fisher-folk population is about 17,455, of which 4445 are actively involved in fishing, 667 are involved in allied activities and 268 women are occupied as fish vendors. Eleven mechanized boats, 53 outboard and 31 non-motorized crafts are owned by fishermen in Vizhinjam.

In north Vizhinjam fishermen go for mussel collection and oyster cultivation for the CMFRI regional institution located in Vizhinjam. They also use bottom nets to harvest flat fish and flounders from the sea bottom. These bottom nets are operated at specific depths, and are mainly used on the muddy sea bed where flat fish are found. Once the net is laid out on the sea bed, it is left for a period before being retrieved to collect the fish. South Vizhinjam is mostly the harbour area and fishermen are involved in fishing, auctioning, fish processing and marketing. The other fishing methods are deep sea fishing, long-line tuna fishing, hook-and-line fishing and *thangal* fishing (where fishermen stay at sea for longer periods) and night fishing. Any catch in the boats is auctioned and marketed at the fish-landing centre itself. It is mainly women who are involved in fish processing and marketing. The most important craft used in Vizhinjam are OBM boats, plywood boats, large vessels for night fishing and deep-sea fishing etc. In the rough season most beaches will be eroded,

hence the fishermen from different villages go to Vizhinjam harbour and launch their craft, because even in rough seasons the harbour is safe for both launching and landing. Due to the on-going dredging for the Vizhinjam international sea port, there is a collapse of the underwater natural habitats on which the fishermen depended for their daily sustenance, and this human activity threatens the lives of marine organisms as well as fishermen.

2.1.2 Mariyanad - Puthukurichy

About 794 fishermen households reside in the fishing village of Mariyanad. The total fisher-folk population is 3,628, of which 1,011 are active fisher folk, and 236 are involved in fishing allied activities. About 227 women are fish vendors. Fifty-three outboard and 60 non-motorized crafts are owned by Mariyanad fishermen. Most fishermen in Mariyanad are reef fishers who are skilled at finding the fishing grounds in the sea bed. Hook-and-line is the major gear they use to catch fish from reefs. A few fishermen are involved in flounder fishing which commands a good export price. They use bottom nets for this purpose. But this kind of fishing is destructive as the bottom net also scoops up other molluscs and crustaceans along with flat fish and flounders. Light fishing during night is also slowly spreading as a trend because of the good catch possible. Nowadays fishermen are taking up novel techniques like using fluorescent lamps which emit high-intensity light which in turn attracts more fish to the boat to be scooped out. During the rough season, huge waves surge towards the shore and the fishermen are compelled to launch their craft by breaking the roaring waves at huge risk to their lives. This adventurous launching sometimes meets with success after many trials which may last for hours. The fishermen usually lose their gear. Kattamarams and OBM boats are launched in such a manner. And all these can only be done by skilled and experienced fishermen who know the heartbeats of the 'mother sea'**.**

Puthukurichy fisheries village is spread over four wards of Kadinamkulam Gram Panchayat. The coastal wards of this village are 1, 20, 21 and 22. The village has a total of 2660 houses and 2710 households are living there. Among them, 57 households are landless or presently living as a joint family. Regarding the housing situation in the village, it is noted that 24.62 percentage houses are pucca, 70.33 percent are semi-pucca and 5.03 percent houses are kachha houses. About 92.10 percent of the existing houses in the village have sanitary toilets. Safe drinking water is available to 90.15 percent of the existing houses. Most of the houses in the village (97.40 %) are electrified. It is noted that 1342 persons from the fisher folk community are insured with the Fisheries Board (Matsya Board). And 62 persons are covered under the old age pension scheme and 15 persons are covered under widow

pension scheme during 2007-08 in this village. Regarding the community specific facilities, this village has one sub centre. The village has three LP schools, one High School and a Higher Secondary School. Ten Anganawadis are functioning in this village and eight of them are functioning in rented buildings. This village has a network of 13 roads of length 15.25 Km. the village has 190 street lights and 100 of them are functional. About the fisheries specific infrastructure and facilities, it is noted that 34 country fishing boats are available in this fisheries village. And a total of 46 kerosene permits are issued to the fisher folk in this. The village has a protected coastal length of 3.00 Km. Consumption of liquor and narcotic drugs are moderate in this village.

2.1.3 Kochuveli

Kochuveli fisheries village is located at half portion of ward 85 of Thiruvananthapuram Corporation. The village has a total of 1992 houses and 2112 households are living there. Among them, 136 households are landless or presently living as a joint family. Regarding the housing situation in the village, it is noted that 50.99 percent houses are pucca, 34.52 percent are semi-pucca and 14.48 percent houses are kachha houses. It is noted that 598 persons from the fisher folk community are insured with the Fisheries Board (Matsya Board). And 32 persons are covered under the old age pension scheme and 11 persons are covered under widow pension scheme during 2007-08 in this village. This village has a network of 6 roads of length 5 Km, 0.45 Km drainage. The village has 25 street lights and 9 of them are functional. About the fisheries specific infrastructure and facilities, it is noted that 44 country fishing boats and 9 mechanized boats are available in this fisheries village. And a total of 46 kerosene permits are issued to the fisher folk in this. The village has an unprotected coastal length of 2.00 Km. Consumption of liquor and narcotic drugs are acute in this village. (Kerala State Coastal Area Development Corporation Limited)

2.2 Basic Identification Data

Penetration of credit can't be regarded as a distinct force independent of other socio economic factors, which are the basic decisive inputs determining how the fisher folk collect, organise, spend and survive. It is well known that the employment or levels of income of fisher folk can't be treated as consistent due to the increased seasonable variability associated with total landing as well as the quantity of fish successfully sold at a profit margin by the poor female vendors. All transactions are coiled with loops of uncertainty, but positive vibes hit the banks of their mind as every roaring tide disappears at sandy shores. For them fishing

and sale of produce is not just an occupation. Their beliefs, culture, rituals and habits are aligned with the mighty sea.

2.2.1 Age and Sex Distribution

Table 2.1

Age – Sex Profile of Sample

AGE	VZM			MPK			KV			TOTAL			%
	N	M	F	N	M	F	N	M	F	N	M	F	
< 21	3.79	100	0	5.66	100	0	0	0	0	4.00	100	0	4.00
21-30	6.32	100	0	5.66	100	0	22.2	100	0	8.00	100	0	8.00
31-40	18.98	86.66	13.34	16.98	88.88	11.12	16.66	100	0	18.00	88.88	11.12	18.0
41-50	30.37	70.83	29.17	26.41	78.57	21.43	16.66	100	0	27.33	75.60	24.40	27.3
51-60	32.91	46.15	53.85	33.96	38.88	61.12	27.77	20.00	80.00	32.66	40.81	59.19	32.6
>60	7.59	33.33	66.66	11.32	50.00	50.00	16.66	66.6	33.33	10.00	46.66	53.34	10.0

N – percentage of samples, M – Percentage of Males within N, F – Percentage of females within N.

TOTAL: 150

The Pattern of age structure observed in all the three fishing villages is similar with a concentration over the age group 40-60. The Population of people below the age of 21 is very less, indicating an aging fish worker population. Most of the fisher women fell over the age group 50-60. And most of the fishermen are pertaining to the age group 30-50, as they are healthy enough to go for a voyage. And interestingly no women below the age of 30 are employed in the shore.

2.2.2 Religion and Caste

Table 2.2

Religion and caste details of Sample

Religion	VZM	MPK	KHV	Percent	Caste		
					GEN	OBC	SC/ST
Hindu	5.12	0	0	2.66	0	1.33	1.33
Muslim	30.76	11.32	22.22	22.66	0	22.66	0
Christian	64.55	88.67	77.78	75.33	9.33	65.33	0
				Percentage	9.33	89.33	1.33

Most of the fish workers belong to Christian community with an OBC status, namely Latin Catholic. They are followed by Muslims with a total share of 22.66%. Interestingly 5.06 % of the sample population from Vizhinjam are Hindus, but they are not residents of Vizhinjam. Likewise a considerable proportion of Muslims from Vizhinjam and Mariyanad are also outsiders. Traditional Fishing community residing in these three villages are Latin Catholics. The Church plays an important role in the operations of fish market, its auction and appointment of auctioneers by cooperative societies as well and it claims a commission of 2% of the total revenue from these shores per annum to finance its charitable activities.

2.2.3 Educational Qualification

Table 2.3

Educational Qualification of Sample

Qualification	VZM		MPK		KHV		%	
	M	F	M	F	M	F	M	F
Illiterate	13.92	31.37	8.86	23.52	2.53	5.88	20.2	60.8
Primary	18.98	13.72	10.12	11.76	3.79	3.92	26.2	29.41
U P	21.51	5.88	17.7	0	7.59	1.96	37.37	7.84
Secondary	6.32	1.96	3.79	0	1.26	0	9.01	1.96
Above Secondary	5.06	00	3.79	0	0	0	7.07	00

Educational backwardness is one of the most important reasons for the impoverishment of fish workers in Kerala. More than 60% of the female fishermen are illiterates, while 37.37% of men passed upper primary. The reluctance of more qualified people to engage in fish related activities at the shore is evident from a poor 7.07%. But this upper hand for men in education is primarily due to the participation of young blood, compared to that of fisherwomen. The age structure is the answer to this question of increased illiteracy among fisherwomen.

2.2.4 Types of Household and Nature of Ownership

Table 2.4

Types of Household and Nature of Ownership

Type of house	Percentage	Nature of ownership	Percentage
Thatched	17.33	Owned	72.14
Tiled	5.66	Rented	26.8
Concrete	62.23	Leased	2.00
Asbestos	15.76		

Most of them are residing in owned terraced houses, but 26.8% are rented. But most of these rented people are non-natives migrants.

2.2.5 Size of Land Holding

Table 2.5

Size of Land Holding

Size of land holding (in cents)	Percentage
Land less	13.34
1-4	65.34
5-7	12.33
7 -9	6.33
More than 10	2.66

The average size of holding is 1-4 cents on which their houses are built. This is the most common collateral they used for seeking credit.

2.2.6 Size of the Household

Table 2.6

Size of the Household

Number of members in Household	Percentage
Single	14.66
2-4	26
5-7	17.34
7-9	24. 34
More than 9	17.66

The size of house hold is also a determinant of social well-being. A sizeable proportion of the sample population are living in small households. However, there is a sizeable proportion living in small houses with 2 or 3 rooms, enclosing more than 9 people. More than 41% of the sample population are having a family size greater than 7.

2.2.7 Marital Status

Table 2.7

Marital Status

Marital Status	Percentage	
	M	F
Single	13.13	5.88
Married	64.64	54.90
Separated	8.08	23.52
Widowed	8.08	27.45

Most of the male respondents were having a successful married life and the average marital age even for males are in early twenties. Only 33.33% of men in the age group below 21 were unmarried. But came to fisherwomen, 50% of them are either separated or widowed, indicating a social norm widespread among the fishing folk. Only 7.47% of the women in the age group 31-40, whom are married work at the shore.

Table 2.8

Marital Status according to age groups

Age Group	Single		Married		Widowed		Separated	
	M	F	M	F	M	F	M	F
< 21	50	0	50	0	0	0	0	0
21-30	25	0	58.33	0	0	0	15.38	0
31-40	7.40	3.70	70.37	7.47	7.40	0	3.70	0
41-50	4.87	2.43	46.34	21.95	2.43	12.19	4.87	4.87
51-60	2.08	00	25	31.25	6.25	12.5	6.25	16.66
>60	12.25	6.25	25	7.69	7.69	11.53	00	7.69

A good proportion of the fisherwomen aged between 51 and 60, are either widowed or separated. Most of the married women in the community pertaining to the age group 21-40 are house wives since their husbands are earning for the family.

2.2.8 Health Statistics

Table 2.9

Health Status of Sample

Health Status	Percentage
No chronic illness	74.33
Cancer	3.33
Liver cirrhosis	17.67
Alzheimer Disease	0.67
Heart Disease	4.00

Mostly men suffer from liver cirrhosis primarily due to their ever increasing liquor consumption on a daily basis. Most of them regard liquor as a fuel for their engine, which performs reckless manual labour.

2.2.9 Use of Narcotics and Beverages

Table 2.10

Use of Narcotics and Beverages

Type	Percentage	
	M	F
Smoking	91.91	_
Alcohol	89.89	_

A sizeable number of fishermen, including those below the age of 21 are chronic drunkards. Each of them on an average spends Rs 250 per day only to buy liquor. During off seasons, they would borrow to meet their drinking expenses.

2.3 EMPLOYMENT DETAILS

2.3.1 Nature of work

Table 2.11

Nature of work of samples

Nature of Work	Percentage
Fisherman	63.33
Fisherwomen	34
Allied workers	2.67

Men are usually entrusted with the job of deep sea voyages while fisherwomen are engaged in cleaning and reselling of fishes.

3.3.2 Type of Vessel

Table 2.12

Type of Vessels used by samples

Type of Vessel	Capacity	Percentage			Total %
		VZM	**MPK**	**KVL**	
Small sized Hook and line gears	3-5	12.5	57.12	66.66	38.88
Medium sized Hook and line gears	4-8	37.5	28.57	33.34	33.34
Netting Gears	4-8	12.5	14.28	0.0	11.12
Storage Boats	5-10	37.5	0.0	0.0	16.66

Among the total sample population, 12% are boat owners; four types of fishing boats rule the shores of Trivandrum. Interestingly all of them are small scale fishing fleets with capacity up to 10 people. Harbours of Trivandrum are devoid of large scale trawlers and big fishing boats compared to Kollam. Both Marianad-puthukrichy and Kochuveli are small fishing spots compared to the large Vizhinjam harbour, 250-400 fleets are operating, together at Mariyanad and Puthukurichy, while the total number of fleets enriches the Vizhinjam harbour is more than 1200.

Small sized hook and line gears are the main source of employment in both Mariyanad and Kochuveli, where fishing is less commercial compared to that in Vizhinjam. Medium sized hook and like gears with an average capacity of 6, expandable up to 8 or 9 according to catch Cuttle fish. Same vessel is used as netting gears as well to catch plentiful varieties like sardines and mackerels. In addition storage boats encountering deep sea voyages demanding a 2 or 3 night stay at the deep sea are also seen in Vizhinjam. Storage boats are totally absent in the shores of Mariyanad and Puthukurichy, where fishing is a community based initiative.

2.3.3 Approximate Expected Income from Vessel per Week

Table 2.13

Approximate Expected Income from Vessel per Week

Type of Vessel	Income range (approximate as revealed)
Storage Boats	15000- 1500000
Netting Gears	5000 – 300000
Medium size Hook line Gears	5000- 400000
Small sized Hook line Gears	3000- 200000

This table represented above shows the average weekly income accumulated on each vessel. This total sum would be divided among the total number of fishermen who engaged in the voyage. Total share would be divided into 7 equal parts, if there were 5 fishermen. One shares each for boat and engine. So of the 7 shares, the boat owner, being a worker himself claims3 shares and the remaining 4 shares are equally distributed. Unlike Kollam, most of the boat owners in Trivandrum are partakers in fishing mainly due to the dominance of small scale fishing vessels. But in Vizhinjam presence of third party owners can be traced, but they are only a minority. The actual level of income they receive per week is a highly fluctuating figure which may vary indefinitely. In the above table the minimum domain values represents off seasons and maximum values represent prosperity.

2.3.4 Fishermen with own boat: An Income – Expense statistics

Table 2.14

Income – Expense Statistics of Fishermen with Own Boat

Vessel	Fishermen with own Boat	Initial Investment	Income range (approximate as revealed on weekly basis)	Maintenance Cost per season(6 months)
Storage Boat	3.03	1200000	3500- 2.13000	Up to 4 lakh
Netting Gears	2.02	6,50000	800- 50000	Up to 2 lakh
Medium Size Hook Line Gears	6.06	6,50000	800- 50000	Up to 80000
Small Sized Hook Line Gears	7.07	3,75000	750-50000	Up to 2 lakh

This table demarcates boat owners with respect to the nature of owned vessels. This is followed by the cost endured to replace impaired hook lines and nets with new ones. In addition Storage boats need additional facilities to be fit enough for multi day voyages. All these maintenance costs are expected to be covered by a prosperous season ahead. A Storage boat with both its engines requires more than 12 lakh Rs as initial investment, while medium sized gears costs Rs 6,50000 including its 9.5 Hp pair, hook lines, nets and other miscellaneous expenses. A small sized gear with a 6 Hp single engine costs Rs 140000 for vessel and Rs 1, 36000 for engine. All maintenance cost is incurred by the owner himself for all type of vessels since he is appropriating 3 shares from the total output.

2.3.5 Nature of Work and Weekly Income

Table 2.15

Nature of Work and Weekly Income of Samples

Nature of Work	Initial Investment	Income range (approximate as revealed per week)	Percentage
Fishermen with own vessel	600000-700000	2100-66000	12.00
Fishermen without own vessel	Nill	1400-22000	54.00
Fisherwomen	1000-10000	1200-15000	34

The Table represents the average initial investment to be undertaken by a fishermen with own vessel along with his earnings per week. What is represented here is the income earned per day per individual, so the income of a fishermen with own vessel (on an average) can vary from Rs 2100 to Rs 66000 per week, depending on the kind of vessel. 54% of the sample population are fishermen without owned vessels who can earn up to 22000 during seasons. And 34% of fisherwomen are fish venders whose income fluctuates from 1200 to 15000 on a weekly basis.

2.3.6 Working Capital requirements per day for Vessel

Table 2.16

Working Capital Requirements per Day for Vessel

Kind of Vessel	Running Cost(per day)
Storage Boats	9000
Netting Gears	7500
Medium size hook line Gears	7500
Small size hook line Gears	2200

Both these storage boats and medium sized vessels are operating using a couple of 9.59 HP engines, which requires 100 litres of kerosene and 10 litres of diesel per day.Moreovermultiday voyages necessitate food storage facilities inside storage boats, which is prepended with the total running cost. A small sized hook line gear requires Rs 500 for diesel and Rs 1700 for kerosene on an average per voyage. Unlike the maintenance cost, running cost is not endured by the owner himself, it is disbursed among the total number of labours accompanied in the voyage.

2.3.7 Average Working Capital requirement per head per day

Table 2.17

Average Working Capital requirement per head per day

Nature of Work	Cost (average)
Fishermen with own Vessel	600-1300
Fishermen without own vessel	600-1300
Fisherwomen	500-15000

Actually this running cost incurred per voyage is deducted from what is paid at the end of the day or end of the week, thus the burden is apportioned equally. But for a fisher woman, her running cost is the cost of purchasing fish from auctioneers. The more she spent on purchase, the more she can earn on sale. She is embarked to make such risky investments every day to make her livelihood.

Whenever the earnings per day is paltry, both the owners and the workers are compelled to be in debt not only to meet the running expenses but also to feed their children. When losses started mounting, they exchange pending debts with new ones anticipating a prosperous season ahead. Fisherwomen are given fish as debt in some part of the shore with an unwritten agreement to settle the deal as soon as the fish is sold. But if the former fail to repay on a regular basis, fish would be denied next time. If she is having a bad day with most of the purchased fish left unsold in herbasket, with chances of being rotten by that evening, she has to incur a new debt very next day to pay off the outstanding debt.

2.4 Village Based Profile

2.4.1 Debt profile

Vizhinjam is the most leveraged fishing village amongst the selected three by encompassing 64% of the total leverage, with a massive population size. It is followed by Mariyanad-Puthukurichy and Kochuveli respectively.

Table 2.18

Total and average debt across villages

Fishing Village	Total debt	Average debt(per head)
Vizhinjam	64%	916666.6667
Mariyanad-Puthukurichy	26%	563461.5385
Kochuveli	10%	620000

Considering the larger size of the Vizhinjam harbour, an average debt per head of Rs 916667 is not surprising, but a bit lofty when collated with other two fishing villages. Mariyanad is the pick of the villages by exhibiting a well-disciplined debt profile averaging 563461 per head. Kochuveli is the smallest amidst the villages, though it encircles only a mere 10% of the total debt, the mean debt per head is towered at Rs 620000.

2.4.2 Nature and Composition of borrowings across the villages

In the domain of leverages below one lakh, Mariyanad –Puthukurichy leads the list by fencing 56% of the total debt; in addition it shows consistent figures over 30% with respect to debts less than 12 lakh. Only 12% of the total leverages above 12 lakh is associated with this coastal village. It is noticeable from table 5.2, that 88% of the penetrated credits in Mariyanad- Puthukurichy worth less than Rs 1 lakh are institutional. Even though Vizhinjam and Kochuveli together accommodate only 44% of the total debt below 1 lakh, its overall figures demonstrate a similar affinity towards institutional credit under this category. Availability of sufficient commercial and cooperative credit up to Rs 1 lakh can be uncovered using these facts. As the demanded credit is below Rs 1 lakh, commercial banks don't require all of its complex formalities to be fulfilled. Most of the credit advanced by Cooperative banks would be job related despite the stratification of leverages.

Table 2.19

Credit availed across villages

Credit	**MPK**	**VZM**	**KV**
0-99999	56%	22%	22%
100000-399999	34%	47%	19%
400000-799999	30%	59%	11%
800000-119999	31%	67%	8%
>1200000	12%	75%	13%

Evaluating the nature of credit penetration in Vizhinjam, as the amount of indebtedness increases from 1 lakh to over 12 lakh, the share of Vizhinjam rises sharply from 47% to 75%. About 67% of the total debt below 12 lakh and 59% of the total debt below 8 lakhs emerge from this village. Unlike Mariyanad, fish workers of Vizhinjam are dealing in large numbers. However the suffusion of institutional credit has been falling significantly as we progress from lower debt margins to higher ones.

Table 2.20

Source wise credit availed across villages

Credit	MPK		VZM		KV	
	INS	**INF**	**INS**	**INF**	**INS**	**INF**
0-99999	88%	12%	61%	39%	69%	31%
100000-399999	59%	41%	44%	56%	53%	47%
400000-799999	56%	44%	36%	64%	39%	61%
800000-119999	38%	62%	29%	71%	34%	66%
>1200000	43%	57%	37%	63%	45%	55%

According to table, 71% of the borrowings falling under the scale 8lakh-12 lakh are financed by informal credit alone. Kochuveli also manifest a trend similar to that of Vizhinjam regardless of all dissimilarities in size, landings etc. The percentages of people with multiple debts are also climbing up in Vizhinjam than that in rest of the villages. We can clearly discern the purpose for which institutional and informal credit is applied in the villages with the aid of table below. Village wise affinity towards both institutional and informal credit is enlisted here for various domains of outstanding debt. The preponderance of job related credit among total institutional borrowings of Mariyanad –Puthukurichy further seek our attention to the operations of an organised job related market under the branches of three Fishermen Development Welfare Co-operative societies locating with in the premises of Kadinamkulam grama panchayat.

Table 2.21

Use based classification of credit from various sources across villages

Credit	MPK				VZM				KV			
	INS		INF		INS		INF		INS		INF	
	JR	PSL	JR	PSL	JR	PSL	JR	PSL	JR	PSL	JR	PSL
0-99999	82	18	44	56	48	52	86	14	53	47	80	20
100000-399999	75	25	25	75	48	52	51	49	61	39	36	64
400000-799999	80	20	16	84	63	37	36	64	76	24	45	55
800000-119999	74	26	10	90	62	38	30	70	59	41	36	64
>1200000	73	27	30	70	61	39	32	68	62	38	30	70

All the crafts operating at the shore are owned by the natives themselves and are centrally financed by Matsyafed as part of its integrated fisheries development project. Sufficient credit is supplied to the fishermen for procuring fishing inputs, working capital and other infrastructure facilities. This fund thus allocated is disbursed through cooperative societies and this is the rationale behind the predominance of institutional job related credit at Mariyanad-Puthukurichy. When a fish worker approach cooperative society, demanding credit for purchasing fishing related instruments; he/she she would be guided to the outlets of Matsyafed from which the purchase can be made. Cooperative societies through the execution of various schemes proposed by Matsyafed, regulate the day today working of the shore. It appoints fish auctioneers by accepting land documents as collateral to conduct auctions at the shore.

Unlike Vizhinjam and Kochuveli, entire landings in Mariyanad are apportioned by these auctioneers to third party buyers including fisherwomen. The buyers would be given corresponding receipts, which has to be settled with the back with a week. Delayed payments enervate this system especially in the months of June to September where landings hit its peak. White Squid, Scrimp and Cuttle fish are the main exported species from Mariyanad-

Puthukurichy, but these exporters often make interminable delays in repayment especially in prosperous seasons. Consequently the fishermen are impelled to incur debt to finance their working capital requirements. There are more than 21 auctioneers working under 3 cooperative societies More over the practice of lending fish to fisherwomen rooted only in trust ensures their subsistence. This practice of lending fish is vocally acknowledged by the cooperative society at the risk of the auctioneer. If these fisherwomen fail to repay this money; auctioneer would be obliged to reimburse the amount before the bank. In addition fisherwomen are given interest free loans to meet their working capital requirements such as aluminium utensils, storage boxes etc. These facts justify the increased degree of job related institutional credit penetration in Mariyanad- Puthukurichy. But stillpeople hinge on informal credit to meet their personal needs. Informal sources contribute 62% of the total borrowings inside the category 8lakh-12 lakh that sums up 34.2 % of the total leverage.

Vizhinjam contradicts this story shared by Mariyanad in many respects. As we discussed earlier, Vizhinjam is known for its large harbour which can accommodate more than 100 boats at a time. Fishing is more commercial in Vizhinjam compared to the closed indigenous set up as in Mariyanad. The total number of crafts operating at the shore of Vizhinjam is approximately 1200, but only 56 of them are owned by the inhabitants of the fishing village. 51 of them are financed by kottappuram south cooperative society and 5 are funded by south cooperative society under integrated fisheries development project of Matsyafed. Landings from these 56 vessels are apportioned by auctioneers appointed by the cooperative societies. But the total number of auctioneers is less than 10, indicating a dwindling cooperative influence. More than 1100 of Vessels operating at the shore are external to the village; hence they are outside the realm of institutional cooperative credit. This is the main reason for the increased affinity towards informal credit especially in Vizhinjam. Most of the vessel owners including that of storage boats hang on informal sources to make their purchase.

Even though the transfixion of institutional credit in the village is trivial; job related institutional credit is slightly dominant over credit for personal purpose. Increased affinity towards credit in Vizhinjam is highlighted by an average debt per head of Rs 916666. Similar trend can also be observed in Kochuveli with a debt per head of Rs 620000 despite a smaller population. Kochuveli swims in the same direction of Vizhinjam; two major differences are the smaller size as well as the landing capacity of the shore, but most of the vessels operating

at the shore are funded by private sources not only due to their external origin but also due to falling role of cooperative societies at the shore.

2.4.3 Nature of work and sources of credit

This table shows how total credit is disbursed among various groups with respect to the nature of their work across the villages. Fishermen with own vessels in Mariyanad are mostly reliant on institutional credit due to the effective interventions of the fishermen cooperative societies.

Table 2.22

Credit disbursal according to nature of work

Nature of Work	MPK		VZM		KV	
	INS	INF	INS	INF	INS	INF
Fishermen with own Vessel	84%	16%	31%	69%	38%	62%
Fishermen without own Vessel	43%	57%	35%	65%	39%	61%
Fisherwomen	22%	78%	11%	89%	15%	85%

But in Vizhinjam and Kochuveli, the dominance of informal sources is clearly evident. For those fishermen without own vessels, banks have the provision to grant credit for purchasing Nets, Hook lines, Ice boxes, gear nets etc. This is the reason for the nominal contributions from institutional sources. Fisherwomen are completely alienated from accessing institutional credit in three villages especially for personal needs. Of this suffused institutional credit among fisherwomen, a lion's share is taken by job related credit. Cooperative banks of Vizhinjam and Kochuveli lags behind cooperative banks of Mariyanad in providing interest free loans to them mainly due to the uncertainty with repayment.

2.4.4 Credit profile of the villages at a glance

Table 2.23

Credit profile of the villages at a glance

Nature of Credit	INS	INF	INS		INF	
			JR	PNL	JR	PNL
Vizhinjam	34%	66%	61%	39%	33%	67%
Mariyanad-Puthukurichy	46%	54%	76%	24%	15%	85%
Kochuveli	41%	59%	64%	36%	37%	63%

This table above depicts a comprehensive picture regarding the nature and compositional of total penetrated credit. As we discussed earlier, Mariyanad Puthukurichy is having a better access to institutional credit than both the other villages. About 76% of the pervaded institutional credit is job related in Mariyanad. Even though the total share of institutional credit is low in both Vizhinjam and Mariyanad, more than 60% of the total institutional credit is job related. All three villages are reliant on informal sources to meet most of their personal needs.

2.5 Comprehensive Debt and Credit Profile

2.5.1 Total debt and nature of debt

When the total debts in all three fishing villages are clubbed together, we get these results. Debt profile can be made by categorising the incidence of borrowing into 5 main heads with debts over 12 lakh as the prodigious category.

Table 2.24

Distribution of total debt across categories

Total Debt	Percentage	INS %	INF %	Com	Coop	Ml
No Debt	1.33	0	0	0	0	0
0-99999	11.34	78	22	17%	61%	22%
100000- 399999	17.34	51	49	19%	32%	49%
400000-799999	22	42	58	13%	29%	58%
800000-1199999	34.66	33	67	10%	23%	67%
>1200000	13.33	39	61	12%	27%	61%

It is evident from the above table that the penetration of institutional credit is showing a declining trend as the debt affliction increases up to 12 lakh mark. 13.33% of the sample population are enduring from a debt over 12 lakh, which encompasses a series of loans, both institutional and informal. Most of them have taken multiple loans for various purposes and this is the reason for a marginal increase in the suffusion of institutional credit in that particular domain against the general trend. 11.34% of people are having the least burden of debt below 1 lakh, in which 78% is institutional credit .Among the sources of credit, cooperative banks provide 61% of the total credit for this domain below 1 lakh. As per table 6.2, 74% of the borrowings pertaining to this group are job related borrowings. This category also enlists the running cost borrowings shouldered by fisherwomen on a daily basis. So 11.34% of people are incurring debt mainly to meet short term job related expenses. When we observe the debt brackets below 8 lakh, it covers 39.34% of the total debt. Owners of small and medium hook line gears alone are responsible for a combined 40.5% of job related credit under this domain. The remaining 59.5 % records their clamour for personal purpose.

A step fall in the institutional credit penetration from 51% for the less than 4 lakh bracket to 42% for the 8 lakh bracket, followed by a steady rise in the suffusion of informal credit. As the demand for personal credit has gone up, reliance on cooperative credit has

shoot down and affinity towards informal credit increased to 58% from early 22%. Moreover, the 8lakh - 12 lakh domain accommodates 34.66% of the sample population with a stubby institutional credit of 33% accompanied by a slender informal credit structure, in which 69% was demanded for personal purpose. Owners of storage boats are the reason behind that trivial share of formal credit under that category.

Table 2.25

Distribution of total debt across uses

Nature of Debt	Job related	Personal
No Debt	0	0
0-99999	74%	26%
100000-399999	44%	56%
400000-799999	37%	63%
800000-1200000	31%	69%
>1200000	32%	68%

The table above shows a mild rise in the share of job related credit for the group of prodigious debtors over 12 lakh only due to the aggregation of large number of small loans. Even though the penetration of institutional credit was relatively high in initial brackets, the share of commercial banks are negligible compared to that of cooperative banks. This issue can be discussed in detail with the help of table below.

2.5.2 Nature of credit

The composition of credit is enumerated in this table. Even though the contribution of commercial banks is negligible in loans less than 1 lakh, it provides only for 3% of the total job related institutional credit. Erstwhile cooperative banks issued more than 80% of the job related institutional credit under this head. 72% of the job related credit under this bracket was imparted by money lenders. Generally fisherwomen rely entirely upon these money lenders to meet their running costs, i.e. the cost required for buying fish from auctioneers. Evaluating the nature and composition of credit allocation from cooperative banks, it is highly job oriented. There are 232 Fishermen Development Welfare Co-operative societies across the state, which are entrusted with the obligation to supply necessary assistance related to fishing.

Table 2.26

Distribution of total debt across uses – source wise

Credit	Job related			Personal		
	Com	Coop	Ml	Com	Coop	Ml
0-99999	3%	81%	72%	97%	19%	18%
100000-399999	11%	83%	41%	89%	17%	59%
400000-799999	10%	90%	32%	90%	10%	68%
800000-1199999	9%	84%	26%	91%	16%	74%
>1200000	12%	78%	37%	88%	22%	63%

Cooperative societies have an additional provision to provide credit for personal purpose only up to Rs 20000 per person. Commercial banks are the only available institutional source for rendering credit for personal needs. But commercial banks are interested in disbursing neither job related credit nor personal credit. Of the trivial disbursement from commercial banks, credit issued for personal purpose is relatively high compared to that for fishing. But these loans are mostly in the form of small gold loans or other short spanned debts. Another challenge faced by the fisher folk is their inability to produce collateral as per the recommendations of the bank. Thus they would be forced to rely on money lenders for large sums of money. It is further manifested in table 2.26, as the credit demand for personal purpose increases, the total debt incurred would go up and it fosters penetration of informal credit. From table 2.25 one can easily conclude that around 68% of the outstanding debts above 4 lakhs were explicitly meant for personal purpose.

2.5.3 Institutional and informal credit comparison

Table 2.27

Institutional and informal credit comparison

Credit	**INS**		INF	
	JR	**PNL**	**JR**	**PNL**
0-99999	71%	29%	72%	28%
100000-399999	61%	39%	41%	59%
400000-799999	71%	29%	32%	68%
800000-1199999	66%	34%	26%	74%
>1200000	64%	36%	37%	63%

Nature and composition of both institutional and informal credit is depicted in this table. Amongst the total disbursed institutional credit, job related credit scores the major share mostly due to the presence of Fishermen Development Welfare Co-operative societies. Credit for personal needs dominated the total outlay of commercial banks, become inconsecutive compared to the large pool of institutional credit advanced by cooperative societies. The share of job-related credit in total informal credit has been falling significantly and the percent of personal credit in total informal credit has been rising up to 12 lakh mark. After that the trend repeats, but not as smooth as it used to be. In reality this distortion in trend pattern is negligible.

2.5.4 Nature of work and composition of credit

Table 2.28

Nature of work and composition of credit

Nature of work	Job related	Personal	Total
Fishermen with own vessel	37%	15%	23%
Fishermen without own vessel	52%	39%	43%
Fisherwomen	11%	46%	34%

Fishermen without own vessels constituting 54% of the sample population led the list by garnering 43% of total uncovered credit with an unshaken 52% of job related credit. Fisherwomen representing a sample population of 34% accumulated 34% of the total disbursed credit with a mounting 46% of personal credit. Even though fishermen with own vessels comprised only a mere 12% of the sample population, they secured 23% of the total credit with a densely indebted job related profile.

2.5.5 Distribution of personal credit

Table 2.29

Distribution of personal credit across uses

Nature of Work	Marriage	Healthcare	Housing	Education	Miscellaneous		
					Vehicle	E-gad	Others
Fishermen with own Vessels	7%	14%	37%	15%	11%	11%	5%
Fishermen without own Vessels	18%	19%	14%	9%	17%	12%	11%
Fisherwomen	40%	27%	11%	10%	2%	5%	5%

Fisher folkdemands large pool of money to finance their personal needs rather than fishing related ones.As the fishermen who own vessels are relatively younger, belonging to the age group of 30-40, housing is their priority. Second category is more diverse and same is visible in the pattern of expenditure. It is appalling to realise that about 40% of the total debt incurred by fisherwomen was to conduct marriages of their girl children. This invites attention to the social norms as well as patterns of living of the fisher folk. Dowry plays an important role in inflating these marriages along with the cost endured to meet other luxuries, unbearable for a community struggling from rapid income inconsistencies. Similar trend can also be traced with respect to the purchase of Vehicles and electronic gadgets. Irrespective of the existing borrowings, they tend to afford more luxuries anticipating upcoming season to be prosperous.Of the other expenses in total miscellaneous outlay; alcohol claims to be the chief ingredient excluding fisherwomen. A Fisherman on an average spent Rs 250 per day only to buy alcohol; if they are faced with any shortage for money, they would borrow to drink. This constitutes a significant part of the other expenses for which they demand credit.

2.5.6 Overall credit penetration

Table 2.30

Credit penetration across source and use

Nature of Credit	Percentage	INS		INF	
		JOB	**PNL**	**JOB**	**PNL**
Institutional credit	38%	57%	43%	31%	69%
Informal credit	62%				

From table it is clear that that the penetration of informal credit is overriding institutional sources and 57 % of the surfaced institutional credit was job related. While 69% of informal credit was demanded for meeting non job related personal needs.Neither cooperative societies nor the commercial banks provide a legitimate aspiration to the fishing folk.

2.5.7 Distance to nearest Commercial Bank

Table 2.31

Distance to nearest Commercial Bank

Distance	**Percentage**
<2 km	47%
<4km	45%
<6km	8%

As we all know, Cooperative societies haven't been entrusted with the duty of advancing large sums for meeting personal needs. So the only available institutional alternatives are commercial banks. But figures represented in previous table's marks the failure of commercial banks to be a supportive lender for the fisher folk. Table above, reveals the existence of sufficient number of commercial banks near to the shore, thus the question of credit dormancy acquires more importance

2.5.8 Experiences of credit denial within last 5 years

Table 2.32

Experiences of credit denial within last 5 years

Nature of Work	Number of Denials	Nature of Denial					
		Fishing related			Personal		
		COM	COOP	PRV	COM	COP	PVT
Fishermen with own Vessel	37	12	5	2	13	8	7
Fishermen without own Vessel	118	54	26	2	29	8	14
Fisherwomen	59	20	6	3	29	3	7

This table reveals the reason behind increased affinity towards informal credit. Commercial banks hold the most number of denials both in case of job related and personal credit with in last 5 years. Commercial banks denied personal credit even for fishermen with own vessels. Incidents of job related cooperative credit denials haven't been reported from Mariyanad-Puthukurichy, while cooperative banks of Vizhinjam and Kochuveli refused credit to some of the vessel owners who were non natives .And borrowing to fish workers on a large scale is risky to them compared to Mariyanad since the total volume of transactions taking place through the cooperative societies are minimal. In Vizhinjam only 56 vessels are funded by Matsyafed and the ambit of cooperative societies are limited to the landings of these vessels. Fisherwomen shared experiences of frequent credit denials especially from commercial banks. Cooperative banks also detained credit for fisherwomen on grounds of bad repayment history. Instances of private credit denials were also reported; some of the pin codes pertaining to the coastal zone are blacklisted by private shop owners at city centres. Even mobile phones and electronic gadgets won't be delivered to them on an instalment basis.

2.5.9 Repayment status

Table 2.33

Repayment status

Nature of Work	Repayment Status					
	Pending		Moving		Declined	
	INS	INF	INS	INF	INS	INF
Fishermen with own Vessel	26%	26%	61%	67%	13%	7%
Fishermen without own Vessel	29%	15%	50%	63%	21%	22%
Fisherwomen	39%	23%	36%	54%	35%	23%

The poor repayment status illustrated in table above is one of the main reasons behind the reluctance of commercial banks to issue credit for the fish workers. A notable amount of loans are either pending or declined. This surge in unproductive debts debilitates the resource base of the branch and prompts it to pursue austere rules and regulations. But Mariyanad is an exception with respect to the repayment in cooperative banks. The vouchers issued by the auctioneers have to be settled with the concerned cooperative bank and as the buyers make their payments, bank will deduct its monthly premium from the beneficiaries account itself. Since the cooperatives of Vizhinjam and Kochuveli lacks this guiding skill, the rate of pending loans are also high.

2.5.10 Reasons for Credit Denial

Most of the commercial banks are following austere regulations to keep the poor fish worker away from its vicinityby pointing to the poor rate of repayment. But still these banks have money to lend to corporates with worst repayment record. Commercial banks are entrusted with various schemes to provide trade related credit to the fishing community, but a good proportion of the credit is detained by sticking to rigid documentation norms. As per the new government regulation, newly build houses should be at least 500 metres away from the shore. Otherwise it won't be given consent by the panchayat. So commercial banks can't discharge credit unless the consent is given. This regulation threatens thousands of people residing in the banks of the sea. Government can impose these legislations as precaution against natural disasters including tsunami, but it should make it clear that where should this people build their houses.

Commercial banks insisted that the amount of owned land should be at least 5 cents to be fulfilled as collateral before the bank, and it should be well connected and accessed through some vehicle.But most of the poor fishermen own less than 3 cents which aren't always connected and thus they are deprived from enjoying institutional credit. An alternative to this norm requires a government employ as a guarantor, but no one would head the responsibility since it is very risky.When the fishermen are applied for job related credit, they are asked to produce income tax returns for the previous financial year. This practice is simply a mockery as everyone knows that he won't keep such records. So this regulation is consciously enacted to deny them credit. When commercial banks are approached for credit to buy a new vessel; the bank often stick to its documentation formalities which insist him to produce balance sheet for the past years along with registered shed. Same regulations for starting a new business enterprise is applied to the fishermen who don't have the knowledge or habit of keeping well defined accounts. All these denial episodes have created a consciousness among the fish workers that banks are not the sources for them to borrow This is the prime reason behind increased affinity to informal credit.

Chapter 3

Summary of findings and Suggestions

3.1 Summary of findings

3.1.1 Tendency to borrow more than what is needed

An important issue which requires immediate attention is credit exuberance among the fisher folk. Since human wants are unlimited, he would allocate scarce resources for the satisfaction of immediate wants. Generally fishermen demand credit for a particular purpose of great importance to him, for which he can't raise fund immediately. What is depicted in the table below is such an attempt to evaluate the value of money required for the fulfilment of last immediate need worth more than Rs 2,000 for which credit was needed, and the total amount of money borrowed by 30 fish workersacross the three fishing villages on a representative basis for its fulfilment. Cost of the immediate need is the sudden push which prompts his to borrow from some sources.

Table 3.1

Tendency to borrow more than what is needed

SI NO	Pending loans	Nature of last borrowing	Source of last borrowing	Time elapsed	Immediate need worth Rs	Purpose	Borrowed Amount
1	3	JR	COP	3 months	80000	Purchasing of net	80000
2	3	PSL	PVT	1 month	200000	Health care	320000
3	3	PSL	PVT	6 month	600000	Marriage	800000
4	4	PSL	PVT	2 week	25000	Pay off bank loans	30000
5	5	JR	COP	4 months	100000	Purchase of hook lines and nets	100000
6	8-10	PSL	PVT	1 week	2500	House hold	2500

						expenses	
7	6	JR	COP	6 months	650000	Purchase of boat	650000
8	2	PSL	COM	4 months	240000	Education	210000
9	5	JR	COM	1.5 year	800000	Boat purchase	850000
10	8	PSL	PVT	Yesterday	250	Alcohol	2000
11	4	PSL	PVT	3weeks	600000	Housing	8,50000
12	2	JR	PVT	4months	800000	Marriage	1100000
13	6	PSL	COM	6 months	500000	Housing	525000
14	4	JR	PVT	1 month	850000	Purchasing of vessel	700000
15	3	JR	COP	2 months	6,50000	Purchasing of vessel	6,50000
16	5-10	PSL	PVT	1 week	1000	Fish purchase	50000
17	4-7	PSL	PVT	2 Months	400000	Health care	600000
18	3	JR	PVT	4 months	5000	Fish purchase	25000
19	4	PSL	PVT	8 months	800000	Marriage	110000
20	2	JR	PVT	3 months	100000	Maintenance	160000
21	3	PSL	COP	2 days	1000	Alcohol and household expense	4000
22	1	JR	PVT	1 year	200000	Maintenance	200000

						cost	
23	5	PSL	COM	6 months	500000	Car loan	550000
24	5-10	PSL	COP	3 months	17000	Buy a Cow	20000
25	4	PSL	PVT	2 months	-----	Marriage	700000
26	4	PSL	PVT	8 months	320000	Buy a Car	500000
27	4	JR	COP	1 year	100000	Covering Pending running capital Charges	180000
28	6	PSL	PVT	5 days	4000	Health	60000
29	**3**	JR	COP	4 months	25000	Ice box replacement	30000
30	**5**	PSL	PVT	2 month	1.5 lakh	Tiling	300000

It can be easily observed from the table that they have a tendency to borrow more than what is immediately needed. Since the Incomes of fish workers are highly flexible, they always plan their consumption on the basis of the peak level expected income. Every day they came to shore carrying a heart, full of uncertainty regarding the outcome. However the fish workers are always optimistic of the sea and expect each day to be theirs. But some times that wait would last more than 3 or 6 months, no matter they are confident that the might sea will give them hand full of joy. This expectation is the reasons which prompt people with more than 3 or 4 major outstanding debts to borrow more to meet additional expenses. Expenses like dowry, car loans, large housing loans etc. are mostly sequential in nature and what is represented here is only the last borrowing.

A negative relation can be traced between credit exuberance and exposition to job related institutional credit. When the fish workers borrow from cooperative societies under NCDS/NFDS, they would be guided to the outlets of Matsyafed from which they can purchase the fishing related instruments according to their need. In one sense a kind of constrain is imposed indirectly over the villagers, which rations the flow of credit. This might be the reason behind the discipline exhibited by fish workers of Mariyanad collated to that of

Vizhinjam and Kochuveli. Mariyanad –Puthukurichy stand out as a good example for a well regulated job related institutional credit market.

3.1.2 The overall work participation of people below the age group of 30 is negligible and this indicates the alienation of youth from shore. Active fish workers are an aging population and more interestingly no woman below the age of 30 is employed in the shore. This is significant because employment is one the factors that determines ability to avail credit.

3.1.3 Traditional Fishing community residing in these three villages is mostly Latin Catholics. Even Church plays an important role in the operations of fish market, its auction and appointment of auctioneers as well. Such factors have implications for the working of institutional credit mechanisms.

3.1.4 Majority of fish workers own only 3 cents of land and it is the common collateral used to seek credit. Non-payment of dues ultimately leads to alienation of land from the community.

3.1.5 A sizeable number of fishermen, including those below the age of 21 are chronic drunkards. Each of them on an average spends Rs 250 per day only to buy liquor. During off seasons, they would borrow to meet their drinking expenses. On the one hand borrowed funds are not used for productive purposes. On the other, unproductive activities influence the employment of fish workers and push them down into deeper debt trap.

3.1.6 Fish workers are having a highly fluctuating income varying according to seasons. Fluctuations in income derail the re-payment of loans. Credit facilities are availed by fishermen based on anticipation of good catch, and do not take into account these fluctuations.

3.1.7 Working capital requirements for the males in fishing; and for females selling fish are different in nature. However, significant amount of credit is availed to meet working capital requirements.

3.1.8 The practice of clearing outstanding debts by availing new loans is common. However, it often complicates the already unstable financial position of the fish workers.

3.1.9 The penetration of institutional credit is considerably high in areas having the effective intervention of Fishermen Development Welfare Co-operative societies. The nearness to the location of societies increases penetration.

3.1.10 In areas with strong penetration of Fishermen Development Welfare Co-operative Societies, the penetration of job related institutional credit is high. Eg - Mariyanad

3.1.11 There is high degree of indebtedness among fish workers. A large share of such fish workers has huge outstanding liabilities, most of which has to be repaid to the informal credit sources.

3.1.12 As the total debt burden increases, the shares of institutional sources in total borrowings are found to be falling. Most of the fishermen are reliant on informal sources to meet their personal needs

3.1.13 About 40% of the total personal debts incurred by fisherwomen were to conduct marriages of their girl children. This invites attention to the social norms as well as patterns of living of the fisher folk. Dowry plays an important role in inflating these marriages along with the cost endured to meet other luxuries, unbearable for a community struggling from high income inconsistencies.

3.1.14 The unique nature of fishing activities and the timing, in which activities take place, make it difficult for those engaged to access institutional credit. Eg - credit among female fish workers need money to purchase fish at times of landings. If landing occurs in the evening, they don't have the option to rely on any institutional sources.

3.1.15 The middle men engaged in fisheries activities are the biggest source of informal credit. They lend money to fisherwomen at rate of interest more than 100%.

3.1.16 Fishermen development and welfare cooperative societies aren't entrusted with the function of advancing credit for personal purposes. And the strict documentation rules which insist the fishermen to produce balance sheets, income tax receipts, ownership of 5 cents of land etc. alienate fish workers from the premises of commercial banks.

3.1.17 Poor repayment status is also a prominent reason behind credit denials by Banks. Frequent Credit denial episodes have created a consciousness among the fish workers that banks are not the sources for them to borrow. This is the prime reason behind increased affinity to informal credit.

3.2 Suggestions

3.2.1 Learning from Mariyanad, government should revisit the operations of cooperative societies in other fishing villages across the district to regulate the job related credit market.

3.2.2 Government should appoint auctioneers in all shores and the conduct of all fish auctions should be made their responsibility, despite the nature of ownership of the vessel on

which fish in landed. Auctioneers should issue bills to the buyers, which should be paid before the cooperative society within a week. This increases the accountability of cash flowing through the shore and as the volume of transactions through cooperative societies catch up, it would become more powerful to regulate the shore. Since there is frequent supply of returns, bank can disburse credit under schemes like NCDS/NFDS without any uncertainties regarding its repayment.

3.2.3 In Harbours like Vizhinjam shrewd private players supply credit in advance to owners of vessels with better landings in order to claim he right to sell the output. And 10 % of the total profit for a particular period would be appropriate by this intermediary. Under these circumstances, government should either settle the amount or advice cooperative banks to negotiate with both the parties to make a convenient settlement with in a fixed period of time, before appointing government auctioneers in the shore. Otherwise it may lead to severe disputes between both the parties.

3.2.4 Every fisherman who possess fishing license should be made legally entitled to claim collateral credit from cooperative banks near to the shore in which they are working. Frequent cooperative credit denials were reported from Vizhinjam and Kochuveli in the name of place of origin.

3.2.5 Additional funds should be provided to cooperative societies to advance loans for meeting personal needs of the fish workers as well

3.2.6 Commercial banks should end these austere measures and new packages which enables bank to provide job related credit to fishermen without any tax or balance sheet papers should came into being.

3.2.7 Government should make sure that the rate of interest prevailing in the shore is legal. Currently rate of interest charged by money lenders are 120% per annum pointing to the complete failure of the government machinery to regulate rate of interest.

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