Economic Empowerment of Kerala's Fishermen: Need for Change in the Role of Matsyafed



Abstract

Kerala boasts of its much-touted Model of Development rapid progress in socio-economic conditions, the fishermen yet community of the state is not able to make a tantamount progress in social and economic development. The poverty, due to the continuum of debts and exploitation among fishermen, pulled them back from the mainstream society. Kerala State Co-operative Federation for Fisheries Development Ltd. known as Matsyafed was established when fishing cooperatives, which were formed to provide financial and technical aid for fishermen, failed to meet their objectives. Matsyafed was expected to bring about a surpassing change in the existing scenario and continues its operation as the apex body of cooperatives, which got revamped under its aegis. But, the extent to which Matsyafed is successful in meeting its objectives is questionable.

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Executive Summary

The social progress made by Kerala and the much-acclaimed Kerala Model of Development are widely discussed worldwide. However, the fishermen community of the state was not able to make a similar progress as that made by the state in various socio-economic aspects. The indebtedness and poverty among fishermen have been an age-old problem and the state had intervened in various ways to improve their well-being.

Though Kerala pioneered the formation of fishing cooperatives, which were perceived to be the ideal means to improve socio-economic conditions of fishermen, it was a failure due to various reasons. The inability to provide sufficient credit to meet the requirements of fishermen and the intervention of middlemen and traders outside the fishermen community steered the benefits of cooperatives in their favour, leaving fishermen without much progress. Matsyafed was born with the intention of bringing a palpable change in the status quo and reducing the exploitation of fishermen by middlemen and giving them the right to sell fish. The study examines the effectiveness of the main strategies of Matsyafed in giving fishermen bargaining power over the price of their produce, enhancing producer control over fishing inputs and improving marketing opportunities for fish, and how fishermen get benefited from it.

The problem of inadequate credit persists and fishermen are not yet out of debt traps even after the intervention of Matsyafed. Though Matsyafed has helped fishermen groups to own boats, it has failed to meet their high operational costs due to which the cycle of indebtedness continues. The study pinpoints the limited role of fishing cooperatives, for which Matsyafed serves as the apex body, in marketing fish and enhancing producer control for fishing inputs. The role of cooperatives is restricted to being a medium for the transfer of credit from Matsyafed to fishermen groups. The majority stake of share capital of cooperatives is with Matsyafed and the government rendering them to have more power in decision making. The matter of concern is to what extent the members of cooperatives are self-reliant to take decisions and have the financial stability to venture into marketing of fish. The study reinstates the need for fishermen to break the odds and venture into marketing their produce without which they will not benefit much and exploitation by middlemen will be par for the course. Matsyafed can play a facilitating role by helping cooperatives in meeting the initial investment costs for storage facilities and marketing. It exhorts the need for a decentralised approach in the functioning of Matsyafed and revisit the approach adopted to meet its objectives.



1. Introduction

Fish is a source of livelihood and part of an important sector of food production, ensuring nutritional security to people. The fisheries sector¹ in India constitutes 6.3 per cent of the global fish production and contributes to 1.1 per cent of the GDP. It also contributes to 5 per cent of the agricultural GDP and provides employment for 14 million people. However, it is widely postulated that the fisheries sector does not enjoy much benefits despite being under the agriculture department. Kerala is enriched with diverse fish resources and sustains more than 10 lakh fishermen folk. Kerala was able to become a leading producer and consumer of fish mainly due to its rich marine wealth with wide variety of fishes and highly skilled population of fishermen. (Aerthayil 2000).

In 2015-16, the contribution of fisheries sector to the GDP² of the state was 1.46 per cent and its contribution to the primary sector was 10.87 per cent. The fishworker population of the state in 2016-17 was estimated to 10.29 lakh constituting 3.1 per cent of the state's population. The number of active fishworkers in the state during 2016-17 was 236,300, of which 89 per cent were males. In 2016-17, the³ total fish production in Kerala was 6.76 lakh tonnes, out of which marine fish landings and inland fish production constituted 4.88

lakh tonnes and 1.88 lakh tonnes, respectively. The share of inland sector was only 28 per cent which is comparatively less in comparison to the marine sector⁴; while it was 66 per cent at the national level. There has been a decrease in the overall production of fish in Kerala from 2011-12 onwards and it is mainly attributed to the fact that marine fishery resources of the state have attained its optimal level of production. It raises questions on the sustainability of the sector and the fate of the people dependent on the sector for their livelihood.

While Kerala boasts of its high ranking in the Human Development Index, the class of fishermen population has been struggling to tread their way to development. The per capita income of Kerala in 2015-16 was ₹142,155 while that of fishermen was ₹68,781. According to Thomas⁵ Kocherry, in the paper titled "Suggestion for improvement of socioeconomic status of traditional fisher folk", the traditional fisherfolk includes all men, women and children who earn a livelihood by involving in harvesting, handling, processing and marketing of fish and fish products.

The fishermen folk, especially the small-scale fishermen, has always been entrapped in debt burden and strive to find stability of income. They are highly dependent on money lenders and traders (Dietrich and Nayak 2002) leading



Chellanam fishing harbour



to cyclical poverty. Kerala is considered as a pioneer in understanding the relevance of cooperatives in improving the socio-economic conditions of fishermen. The state believed that cooperative organisation is the best means for the government to effectively provide financial and technical aid for fishermen. However, cooperative movement in the fisheries sector was a failure and was not able to address the basic problems faced by the fishermen community. The economic benefits gained in the sector due to technological advancements did not trickle down to the producers who ought to enjoy the right over their produce. The Kerala State Co-operative Federation for Fisheries Development Ltd. (Matsyafed) was started in 1984 with the intention to address

the problems of the fishermen community, which the earlier cooperatives failed to do.

In this context, the study intends to examine the effectiveness of Matsyafed in addressing the problem of indebtedness among fishermen and looks at the role played by Matsyafed in providing the right of sale of fish to fishermen. The study also evaluates the role of cooperatives under Matsyafed and whether they have any active role other than being a medium for the transfer of credit to fishermen groups. It also explores the scope for further improvement in the existing system to bring about effective changes in the socio-economic conditions of fishermen, ensuring the right over their produce and fair price for it.

2. History of Fishing Cooperatives in Kerala

The widespread growth of cooperatives globally is attributed to the work of International Cooperative Alliance (ICA), which was formed in 1895. It has been the final authority for defining cooperatives and setting up principles upon which cooperatives need to function. The definition of cooperatives⁶ is that "A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise."

The first fishermen cooperative society in Kerala region was registered in 1917. The cooperatives were largely organised under a particular religion or a community. The number of cooperatives rose to 95 by 1933 and had a membership of 8194 fishermen combined. However, the performance of these cooperatives was poor. Later, post-reorganisation8 of states in 1956, the Department of Fisheries took the initiative to revive fishermen cooperatives with the objective of promoting fishing and improving the social and economic conditions of fisherfolk.

Another argument behind the formation of fishermen cooperatives is related to the Indo-Norwegian Project (INP), which was introduced to Kerala in 1953. INP was a developmental project with the specific objective of improving fish productivity through modernisation of the fishing process. INP saw this as the right way to improve the protein consumption of Indian population while increasing the hourly income of fishermen. Since then, the mechanisation of fishing crafts was carried out on a large scale. The Norwegians⁹ demanded formation of cooperative institutions for the disbursement of funds for mechanisation. The proposed

cooperatives had a three-tier structure with primary cooperatives at village level, secondary cooperatives at district level and a state-level cooperative as an apex body.

The purpose of village-level cooperatives was to promote fish production and credit loans. The district-level cooperatives aimed to supply fishing inputs like gear and net to village-level cooperatives and market fish. The state-level cooperative's purpose was to channel funding from central government agencies to districtlevel cooperatives and coordinate their activities.

While cooperatives played a crucial role in the success of White Revolution in the 1970s at national level, fishermen cooperatives failed to improve the socio-economic conditions of fishermen in Kerala or promote fishing in a sustainable manner. The failure is attributed to many reasons some of which are discussed below.

The funds, for large-scale mechanisation of fishing crafts carried out as part of INP, were disbursed through village-level cooperatives. The number¹⁰ of village-level cooperatives increased from 241 to 1036 during 1958-59 and 1973-74. During the same time, there was an increase in the number of mechanised boats operating in the state from 115 to 2105, out of which 805 were disbursed through villagelevel cooperatives. However, anyone who could collect names of 50 fishermen and a share capital of around ₹500 could register as a fishermen cooperative and receive benefits like motorised/mechanised crafts/boats and fishing inputs at subsidised rates from INP. There was no clear assessment or followup measures to check whether the societies



that were granted mechanised fishing crafts and inputs were functional or belonged to actual fishermen. Mechanisation of crafts improved the catch and productivity. But, the large-scale mechanisation of fishing crafts threatened artisanal fishermen who were still using catamarans (small boats) and traditional fishing crafts. In the face of huge competition from mechanised crafts, they were forced to mechanise traditional crafts. The demand of credit required to mechanise these crafts was met by private lenders. However, overfishing due to large-scale mechanisation has led to unsustainable fishing and hence, instability in income. This also put artisanal fishermen in a situation where they were not being able to repay the amount borrowed from private sources and thus were caught in cyclical poverty.

The Resuscitative Committee for Fishery Cooperatives (Government of Kerala1976) appointed as an investigating committee in 1975 to investigate the failure of fishermen cooperatives identified the primary reason as

3. Formation of Matsyafed

Kerala is considered to be the first state to understand the potential of cooperative movement among fishermen as the means to improve their socio-economic conditions. However, the first wave of cooperative movement failed to bring about considerable changes in reducing the exploitation of fishermen by middlemen and preserving the natural resources. Matsyafed was formed in 1984 with the intention of reorganising the existing fishermen welfare societies into Fishermen Development and Welfare Cooperative Societies. During¹¹ 1990, there were 81 fishermen development and welfare cooperative societies. In 2015-16, 635 cooperative societies out of 749 were affiliated to Matsyafed. At present¹², there are 666 primary-level fishermen development and welfare cooperative societies. There are 341 societies in the marine sector and 192 in the inland sector, in addition to 133 women cooperative societies.

As per the bye-law¹³, the main objective of Matsyafed is to bring about a holistic development of the fishermen community inclusive of their social, economic and cultural well-being by carrying out activities for promoting production, procurement, processing and marketing of fish and fishery products. The activities undertaken by Matsyafed to meet its objective can be broadly classified into developmental, employment generation

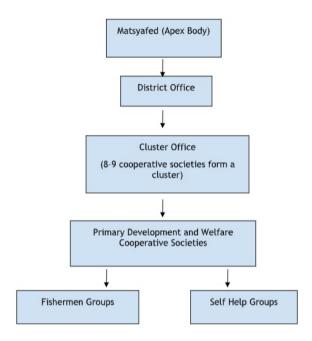
the hierarchy of the three-tier cooperative structure and the responsibilities assigned to them. The committee opined that the inability of village-level cooperatives to channel adequate funds for the credit needs of fishermen was a major reason for the failure. This could have led to fishermen borrowing from other private lenders or tharakans. Tharakans are members of the fishermen community who auction fish and take commission for selling it. They also lend money to fishermen to buy boats and other fishing inputs. The amount given is interest-free and fishermen pay back tharakans by giving a certain percent of commission from the sale value of the catch (this is a traditional practice followed as per the Kadakodi or seacourt rules of the fishing community). Thus, the inability of cooperatives to meet the credit needs of fishermen resulted in the growth of tharakans and other private lenders to whom they sell the rights of the catch. As a result, village-level cooperatives were not able to provide the catch to district-level marketing cooperatives and hence, marketing of fish through cooperatives was also not successful.

and women empowerment programmes. It has also initiated micro financing through Self Help Groups (SHGs), commercial and welfare activities along with aquaculture, extension and mass communication programmes. The mission of Matsyafed is to increase the per capita income of fishermen and bring them into the mainstream society by intervening in the areas of credit, technology, marketing and capacity building. The vision of Matsyafed is to partner with the fishermen folk to maintain sustainable fishing which will ensure protection and replenishment of the fishery resources. Matsyafed¹⁴ receives financial aid from the Government of Kerala but it is mainly driven by projects funded by National Cooperative Development Corporation (NCDC), National Backward Classes Finance & Development Corporation (NBCFDC), The National Minorities Development & Finance Corporation (NMDFC), National Fisheries Development (NFDB), Rashtriya Krishi Vikas Yojana (RKVY) and NABARD-RIDF. Figure 1 depicts the organisational structure of Matsyafed.

The managing committee of Matsyafed comprises 13 board members who get elected by the presidents of various cooperative societies affiliated to Matsyafed. A group of fishermen who would like to organise themselves as Matsyathozhilali Sahakarana Sangam needs to get registered under Cooperative Societies Act and form bye-laws. Once they form



Figure 1: Organisational Structure of Matsyafed



the cooperative, it needs to get affiliated to Matsyafed for which a request is sent to the Management Committee of Matsyafed, which can approve or reject it. The director of fisheries department is the registrar of cooperative societies and the joint director of fisheries stipulates the job posts in cooperatives

including that of the secretary. Cooperatives conduct by-election among fishermen who are members of the society and elect nine members to the board of the cooperative society. The board members of each cooperative society will elect the president of the society.

With the intention of meeting its mission and vision, Matsayfed¹⁵ has devised strategies which include provision of cheap and interest-free loans, checking exploitation of fishermen by auctioneers, providing fishing inputs including kerosene at reasonable rates to weed out middlemen, procurement and marketing of fish of traditional fishermen, training and equipment of fishermen in latest technologies of fishing, fish handling, processing and marketing and replenishment of existing resources by enhancing production of fish and prawn seeds.

Section 4 evaluates the effectiveness of Matsyafed in successfully implementing the strategies devised by it for the upliftment of the fishermen community. It mainly focuses on whether the intervention of Matsyafed was able to bring about a noticeable change in various aspects pertaining to the basic problems of indebtedness of fishermen and their inability to have control over the price of fish.

4. Analysis of the Effectiveness of the Strategies of Matsyafed

Matsyafed aims to bring about a change in the prevailing system where fishermen remain indebted to various players and do not get fair price for their fish. One of the remarkable changes after the formation of Matsyafed is that majority of fishermen groups now own boats, which are often referred to as *valloms*. Earlier, fishermen used to go as labourers on a boat owned by an individual. The boat owners could be individuals outside the fishing community who would get a share of the catch. Whereas, fishermen will get their wages only after meeting all the expenses and most of the time the remuneration they get is left to the discretion of boat owners and this had also paved way for exploitation.

Matsyafed provides a loan of maximum of ₹25 lakh for a fishermen group without taking any collateral from them at the interest rates at which NCDC lends money to them under various schemes, which could be used for the purchase of boats and other inputs. Though the amount is not sufficient to meet all the expenses of taking a boat out for fishing, fishermen groups can own the boat once they repay the loan

to Matsyafed. However, it does not address their problem of indebtedness. It should be also noted that the type of boats used across the state is different. Therefore, the price of boat and the cost of operating it also vary. For instance, the southern districts of Kerala use Kettu Vallom and moving northwards Thangu Vallom is mainly used (Kettu Vallom and Thangu Vallom are traditional fishing crafts used by traditional fishermen). Even the officials of Matsyafed accept the fact that ₹25 lakh provided by it is sufficient only in the operation of Kettu Vallom and the same amount is not adequate to meet the expenses of Thangu Vallom. Insufficient funds and support from Matsyafed in the operation of Thangu Vallom will force fishermen to rely on tharakans to meet the expenses.

One of the main factors of indebtedness is wide price fluctuations of fish and the producers having no bargaining power over the price. This is due to the fact that the right to sell fish is given to a class of people named *tharakans* (auctioneers/middlemen) and fishermen are expected to give fish to them who will then



conduct an auction and sell it to other traders. *Tharakans* take commission for selling fish and even though they may not get the full amount for wholesale purchase of fish from traders,

they give fishermen money for their produce then itself. Given the perishable nature of fish and their urgent need of money make it unpractical for fishermen to be the marketers

4.1 Effectiveness of Matsyafed in Ensuring Right of First Sale of Fish to Fishermen

One of the main strategies of Matsyafed is to ensure the right of sale to fishermen by checking if there is any exploitation by auctioneers. However, the intervention by Matsyafed has been to appoint a *tharakan* for cooperative societies affiliated to it. The *tharakan* appointed by Matsyafed will conduct an auction of fish caught by a particular fishing group, which has taken loan from Matsyafed. Matsyafed also gets commission from the sale

of fish and it is a main source of income for the apex body. The commission charged by the *tharakan* can range from 3 per cent to 10 or 12 per cent depending upon whether the group has taken money from Matsyafed or not and the amount lent by the *tharakan*. Table 1 depicts the break-up of the money received after the sale of fish from a particular boat in Kalamukku fishing harbour at Vypeen in Ernakulam district.

Table1: Break-Up of the Auction Amount at a Fish Landing Centre

		culars	Commission/ Deduction (in per cent)	Amount (in rupees)	Remarks
·	The amount for which fish would be sold as decided by auction			100,000	
2	Amount after deduction of Vilikuravu (it is the amount deducted from the auction amount for the fish)		14 per cent of the auction a m o u n t (100,000)	86,000	As per Kadakodi rules, 14 per cent of the auction amount is given for free to the buyer.
3	Comn	nission for Matsyafed	5.5	4730	
	I	Bonus for the fishing group which will go to the respective cooperative society	1.5	1290	
	II	Income for the society	1.5	1290	
	III	Amount allocated to Matsyafed	1	860	Out of this, 0.5 per cent will be given back to the fishermen group as bonus.
	IV	Commission for tharakan for selling fish on behalf of Matsyafed	1	860	
	V	Amount for owner of the harbour (in case of private harbour)	0.5	430	In case of government harbour it is not applicable and hence the total commission for Matsyafed will be 5 per cent. This is the commission
4		Commission for tharakan	4.5 per cent of the a u c t i o n amount after deducting t h e Vilikuravu amount.	3870	This is the commission which tharakan takes from the fishermen group for selling fish. It can vary as it is dependent on the amount taken as debt by fishermen from tharakan.
		Total commission		8600	



5	Remaining amount	77,400	Tharakan will give
	after deducting the commission	(86,000-8600)	the amount to the fishermen group then itself.

Table 1 represents various transactions that take place at a landing centre where fish is sold. Tharakan collects interest from fishermen of the loan they have taken from Matsyafed. He also takes commission from a fishermen group if they have taken loans from other tharakans and give it to them later. The labourers working in the boat will get their wages from the amount that the fishermen group gets after deducting commission of all types. The remaining amount will be shared equally among the members of the group except the Srank (captain of the boat) and Aaryakaran (the one who needs to be highly skilled and is expected to look for fish and throw nets accordingly), who will get a higher share.

From the above mentioned process it becomes clear that fishermen, who after their strenuous work come to give fish at a landing centre, have neither time nor power to bargain over the price. Since fish is a highly perishable commodity and there is a lack of provision in their boats to store it in ice boxes right after the catch, fishermen also get no time to bargain. Also, delay in the sale will result in decline in the quality of fish. Thus, they have no control over the price and no right to sell their produce.

Though Matsyafed has intervened by appointing a *tharakan*, it does not give fishermen the right to sell their produce. Instead, the move has emboldened the role of *tharakans* making them an inevitable part of the whole process. Thus, fishermen are indebted to *tharakans* and do not have any other choice but to give the commission fixed by them. *Tharakans* can also be traders in many cases wherein the chances of manipulating the price of fish in their favour cannot be sidelined, though it is said that everything is transparent in an open auction.

4.1.1 Probing the Subtleties of the Vicious Cycle of Indebtedness among Fishermen

The main problem faced by the fishermen community is that they continue to remain in debt traps. Though the main objective of Matsyafed is to ensure economic and social well-being of fishermen and interventions

have been made by providing credit, majority of them still continue to be entrapped in indebtedness. The reasons for the vicious cycle of indebtedness are explained with the help of a case study here.

Table2: Case Study of the Eriyadu Fishing group in Azhikode, Thrissur



Karvarnan boat at Munambom Harbour

Natarajan, the *Srank* (captain) of Karvarnan fishing boat, looked weary and expressed a sense of hopelessness as he talked about various hurdles encountered by their fishing group to meet the ends.



The group comprises 23 members and there are 15 labourers in the boat. According to Natarajan, they had given an application for a loan amount of ₹20 lakh to Matsyafed in 2011 to purchase fishing net and boat which were priced at ₹20-25 lakh. However, they received only ₹12 lakh from Matsyafed, sighting the condition that only ₹50,000 per head will be given and at that time there were only 22 members in the group. In addition to the main boat, they had to purchase a catamaran which cost around 3 lakh. The catamaran goes along with the main boat and requires two engines which cost around ₹2.4 lakh each. Thus, the total initial investment and expenses involved to go for fishing summed up to ₹55-60 lakh.

They took a loan of ₹20 lakh each from two *tharakans* and accrued the remaining amount by taking money from individuals for which they paid an interest at the rate of 3-4 per cent. As per the system followed at the landing centre of Munambam, one *tharakan* collects total commission for all *tharakans*. In their case, each *tharakan* had taken a commission of 7 per cent and a total of 14 per cent was collected as commission for *tharakans* in addition to a 1 per cent commission for the one appointed by Matsyafed.

The main season of fishing is from July to December. Natarajan and his group return daily after fishing. They need 2500 kg net for fishing, which costs around ₹900 per kg. Though they were eligible to get a subsidy of ₹10,000 to 15,000 for the net along with the loan, they have not received it yet and ended up paying the whole amount for the net, says Natarajan. The durability of the net depends on many factors and he says that these days it will not last for more than a year. Sometimes, frogs cause damage to nets and in such cases they may have to purchase an additional 1000 kg of net. Around 20,000 floats are required for fishing which costs ₹18 per head and they need to be changed every year. In addition to this, they need to purchase around 2500 kg bait/led which is more durable. The engine of the main boat is run by diesel and requires roughly 200 to 350 litres per day. They purchase diesel mostly from outlets other than Matsyafed at ₹73 per litre, as there is only a small difference in price. The normal requirement of kerosene for a catamaran is 25-30 litres per day, but it can go up to 75-100 litres when there is a huge catch and fish is transferred to the shore by a catamaran taking multiple trips. This also indicates the lack of proper storage facilities within a boat, which in turn lead to extra fuel costs.

Natarajan also talked about instances where after a week-long fishing the group had to return without enough fish. In such cases, they again fall into debt trap as they fail to give money to *tharakans* or persons who sponsor their equipment and daily expenses. The daily expenses for fuel, food and charge for the vehicle to bring workers from their places would come around ₹30,000-35,000. If they do not get a good catch, the whole amount they receive from the sale of fish will have to be given as commission and interest to those from whom they have taken money on credit and will be left with a meagre income.

A part of the amount from the sale of fish is taken by *tharakans* as commission and the remaining amount is divided among the workers in the boat and the fishing group members in a ratio of 3:2. That means, if they get ₹1 lakh after taking commission, the workers in the boat will get 60 per cent of the amount and the fishermen group will get 40 per cent. However, even from this amount they have to pay the interest for Matsyafed and other money lenders. They also have to set aside money to meet next day's fishing expenses and will get only the remaining amount to divide among themselves. In case they do not get a good catch, the next day's expenses will become a new debt for them. Things become worse when they do not get any fish and this will add on to their burden of debts. This shows that the fishermen community struggles to meet their working capital needs and daily expenses.

They do not consider Matsyafed for taking small amount of loans in order to meet their working capital needs and daily expenses. The reason for this, as Natarajan points out, is that if they apply for loan from Matsyafed it will take minimum two months to get it sanctioned. Therefore, they prefer to take money from *tharakans* and individuals as they will get the money immediately. Natarajan adds that it is not possible to get a new loan from Matsyafed if the group has not repaid the earlier one. The group, which now has 23 members, has taken another loan worth $\overline{<}23$ lakh for maintenance work after repaying the initial loan. To add to their woes, the main engine of the boat was damaged and they had to take an additional $\overline{<}6$ lakh from a local money lender to purchase a new boat. Even now, amidst the presence of Matsyafed, the immediate sources of credit for people like Natarajan are money lenders and *tharakans*.

What is more deplorable is that Natarajan, being a member of the cooperative society, is not even aware of the loans they can avail from the society. It pinpoints the extent of awareness and involvement of fishermen in the cooperative society. Apart from other costs, they are paying an insurance premium of ₹9000 and a license fee of ₹5000 every year to the department of fisheries. But, despite being the leader of the group, Natarajan is not quite sure of the amount paid, fine imposed and the purpose of payment. During off-season they are engaged in maintenance work and the labour cost for one person including food comes around ₹750 per day and sometimes it can go up to 15-30 days.



The expenses involved in the maintenance work, to take the boat again for fishing, will come around ₹10 lakh every time. According to them, the total initial investment and cost for taking a new boat out for fishing with all equipment would cost around ₹1 crore now. The expenses are increasing day by day but is there a substantial increase in the income of fishermen?

Natarajan and his group do not have to give rent for their boat as they own it now. But there is no sign of relief for them as they have started a new cycle of paying debts. Though there are rare cases where fishing groups with great skill set have made use of opportunities and managed situations well, majority continue to remain in debt trap as they depend on *tharakans* and money lenders to meet their immediate expenses. Matsyafed is not able to meet the working capital needs of fishermen groups as there is a high demand and the need is immediate. People like Natarajan want Matsyafed to give lump sum amount covering the whole investment of purchasing the boat and getting it ready for fishing with all equipment. It would definitely reduce their dependence on *tharakans* and money lenders but is that sufficient to make fishermen totally independent? Will they get enough savings to meet their working capital needs without being dependent on *tharakans* or money lenders? Will Natarajan and his group get the right to sell their fish and have control over the price of their produce or do they still need to depend on *tharakans* to sell their produce? Though unhappy in the present situation, they still have a ray of hope that authorities will take some measures that will benefit them.

Fishermen are always dependent on credit due to the capital expenditure of purchasing boat, net, engines and other operation costs, emergency needs in family and expenses pertaining to health and education. The availability of loans from Matsyafed is also based on the condition that the fishing group should have made at least 75 per cent repayment of earlier loans. Also, the fishermen group can apply for a loan only if they have shares in the cooperative society. For instance, if they need to avail ₹1 lakh as loan, they need to have 5 per cent share and have to pay 5 per cent of the loan amount. The financial capacity of the group, to buy shares in order to avail loans, at a point of financial stress must also be taken into consideration while evaluating if it can really meet the purpose of providing timely help.

Subsidies for fishing equipment are given only as part of the loan schemes. In such cases, the fishermen group will get subsidy for fishing net

only when they take loans from Matsyafed. The fishing nets get damaged easily due to many natural factors and it becomes inevitable to buy new nets for which they will not get any subsidy unless they take another loan. Even if the nets get damaged, they will not be able to take new loan unless the existing loan is closed.

One of the strategies of Matsyafed is to enhance the supply of financial aid through direct and indirect linkages with leading financial institutions. Fishermen take loans from banks and other institutionalised sources of credit at their own risk and the cooperative society and Matsyafed have no role in it. The effectiveness of the apex body in implementing the strategy of creating linkages with financial institutions and providing timely credit is questionable as the target group of fishermen still depends on non-institutionalised sources of credit and is entrapped in the vicious cycle of indebtedness.

4.2 Effectiveness of Matsyafed in enhancing Producer Control over Fishing Inputs

Matsyafed aims to widen producer control over fishing inputs by providing cheap institutionalised credit. It intends to supply quality fishing equipment at reasonable rates to fishermen thereby reducing their capital investment. Matsyafed has three net factories in the districts of Ernakulam, Kannur and Thiruvananthapuram in Kerala. It has16 also established 13 Vyasa stores along the coastal belt of Kerala in addition to outlets of mini-Vyasa stores in association with cooperative societies. The fishing¹⁷nets account for a larger share of 35-45 per cent of the capital cost incurred for fishing. This includes the cost of fishing net, related accessories and labour charges involved in preparing the net for

seagoing.

Table 3 gives details about the input costs incurred by small mechanised crafts at Chellanam harbour.

The products made in Matsyafed net factories are marketed through Vyasa stores, wherein other fishing inputs like outboard engines, floats, anchor, 2t oil, and twine are also sold. However, during an interaction with fishermen of Mulavukad Inland fish landing centre in Ernakulam (it is currently not functional as buyers are not ready to come there to buy fish due to the poor infrastructure), it was revealed that they prefer to purchase fishing inputs from other traders as they will get all



Table 3: Input Costs Incurred by Small Mechanised Crafts at Chellanam harbour

Particulars	
Boat Type	Out Board Motor
Capacity	15 people (approximately)
Production cost of boat	₹3 lakh (approximately)
Engine cost	₹1.3 lakh
Number of engines required	2
Kerosene requirement	50 litres/day
Petrol requirement	7 litres/day
Cost of fishing net	₹2 lakh
Cost of preparing the net and related accessories	₹3 lakh
Estimated total cost	₹10-12 lakh

Source: Field Visit at Chellanam Harbour

equipment from one shop itself and compared to Vyasa stores there is only a small difference in the price. They also said that it is difficult to find led (bait) of 25 grams which they use for fishing, indicating that fishing inputs are not easily available for people like them. The interesting fact is that the price difference in Vyasa stores and other shops was not a major factor influencing their decision and Vyasa stores are not considered as a one stop shop by them.

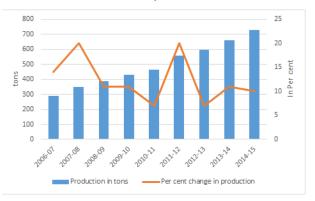
Figures 2 and 3 show the total production and sales of fishing nets in Matsyafed fishnet factories in Ernakulam and Kannur. The production and sales of nets from Kannur factory is accounted from the year 2011-12 onwards.

In case of production of fishing nets, there has been a steep increase during 2007-08 and 2011-12, after which though there is an increase in production of nets, the percent of increase in production is less over the years, while the demand for fishing nets is high among fishermen. This raises questions about the ability of Matsyafed to generate enough quantity of fishing nets in proportion to the demand.

The trend is the same in case of sales, showing a steep increase during 2007-08 and decrease in percent change in sales from 2011-12. This questions the extent of its reach and

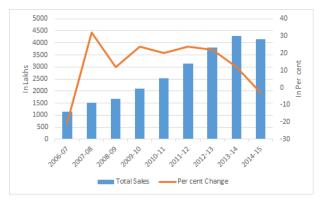
consumption by traditional fishermen who are the intended beneficiaries.

Figure 2: Production in Fishnet Factories of Matsyafed



Source: Matsyafed

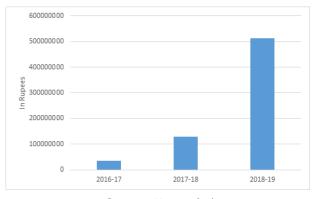
Figure 3: Total Sales of Fishnets Manufactured in Matsyafed Net Factories



Source: Matsyafed

In case of kerosene, which is another major input for fishing, an amount of ₹100 crore is allotted to provide subsidy at ₹25 per litre to fishermen. The intention is to avoid middlemen and provide kerosene at subsidised rates for them. The beneficiaries receive subsidy through direct bank transfer after the purchase of kerosene. But they are required to pay the whole amount at the time of purchase for which they may depend on third parties for the money. In addition to this, many of the permit holders who do not go for fishing buy kerosene at subsidised rates and resell it to fishermen at higher rates. This indicates that black market for kerosene is so rampant among the fishing community. This is largely due to the increased demand for kerosene and its limited availability. Though Matsyafed supplies kerosene through its bunks it is not yet successful in meeting the demand, hence leaving room for black market.

Figure 4: Budgetary Allocation to Subsidy for Kerosene for Fishermen



Source: Matsyafed

Figure 4 shows a sheer increase in the budgetary allocation to subsidy for kerosene. However, during a stakeholder interaction, it became clear that only 25 per cent of

the demand is met by providing kerosene at subsidised rates and 75 per cent of the demand is met through illegal trade. It also indicates the failure of the system in checking whether traditional fishermen with outboard boats, who are eligible for the subsidy, are real purchasers of kerosene through outlets.

Though the intention of Matsyafed is to enhance producer control over fishing inputs, the prospect of it remains bleak as traditional fishermen still struggle to find means to purchase fishing inputs without taking money from third parties. It could be conjectured that Matsyafed was able to supply quality materials at reasonable rates, but it also needs to be considered if fishermen were able to gain control over the price of the products as all inputs for fishing are not available when producers need it.

4.3 Evaluation of the Role of Matsyafed in Marketing the Produce of Traditional Fishermen

Matsyafed has stated procurement and marketing of fish and fish-related products of traditional fishermen as one of their major strategies. The procurement of fish as assured by an apex body like Matsyafed would definitely cushion the risk due to fall in price in cases of excess. The main problem with marketing fish is that it is an easily perishable commodity and

there can be wide price fluctuations in different places and time. Fish sold at a higher price in the morning could be sold for a lower price in the afternoon due to excess supply. The supply chain of fish in the present system of marketing and the role of Matsyafed in the supply chain is explained in the following section.

4.3.1 Supply Chain of Fish in the Present System of Fish Marketing

The supply chain of fish begins with producers. The fishermen groups, especially traditional fishermen, do not carry ice when they go for fishing. They consider it as an additional expense to their already huge operation costs. Ice is a major factor that helps to increase the shelf life of fish and also determines the quality of fish brought to landing centres. The lack of proper storage facilities has a direct impact on the overall quality of the produce. It also reduces fishermen's bargaining power over the price of fish and does not give them a chance to take fish to landing centres where the price would be comparatively high. These factors pinpoint the need to ensure that fishing boats have proper storage facilities. The availability of ice storage boxes also ensures that consumers get fresh fish without any chemicals.

As per the system, fishermen give fish to tharakans and others can only buy fish by participating in an auction. Small fish vendors like those who sell fish on bicycles also cannot buy fish directly from fishermen, but only from those who buy it from tharakans. Though everyone can participate in an open auction where heaps of fish are sold, tharakans will

not allow vendors to purchase small quantity of fish. The quantity of fish sold by tharakans is not based on proper measurements but on approximates, which again gives them more flexibility to manipulate sale in their favour and for wholesalers with whom they could have made a mutual agreement beforehand. Fish is not handled properly and stored in ideal conditions during the initial hours of its traverse in the supply chain. The situation is no different at most of the landing centres, where fish is placed on the floor in heaps. There should be proper guidelines to ensure that fish is handled in an appropriate and hygienic way which ultimately determines the quality of the produce in the supply chain.

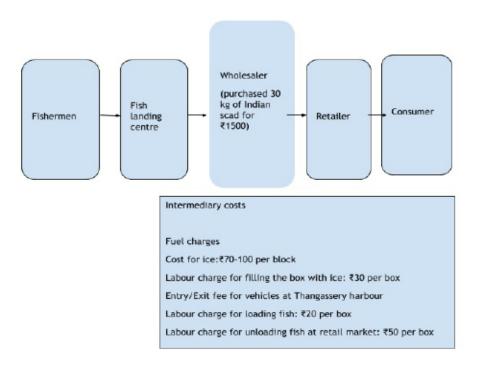
Small vendors purchase fish from wholesalers who buy it through auction at a higher price than what the fishermen receive for the same fish, adding more players in the supply chain. The cost incurred for ice, transportation, loading and unloading, labour, fuel and profit for traders in the supply chain will add on to the final price at which the consumer buys it. For instance, if fish is purchased at ₹40 per kg from a landing centre, the consumer may have



to pay around ₹150 for it. Fishermen, who are the producers, may get only ₹10 per kg after deducting all commissions. It is ultimately the middlemen who make more money from the supply chain than the producer. This is largely due to the lack of any control over the price by fishermen. Figure 5 shows details of transactions in the supply chain of fish at

Thangassery harbour in Kollam district. The intermediary costs and profit for traders will get added on to the final price for the consumer, while the producer will not get any benefit out of it. There is also a possibility for the price to come down by the time fish is transported to various retail markets.

Figure 5: Supply Chain of Fish at Thangassery Harbour in Kollam



There is a lot of uncertainty in the business of fish, mainly due to wide fluctuations in the price. Even if *tharakans* are eliminated from the supply chain and fishermen get a chance to sell fish directly to the wholesaler, there will be a risk element due to price variations. The wholesaler may purchase fish at a given price and may be able to sell it only at a lesser price in the market. In this case, they may not be able to pay the whole amount to fishermen and again fishermen will be at loss. This also highlights a lack of collective action in the process of procurement and marketing of fish to ensure that producers get a fair price for their produce.

The price fluctuations are mainly due to the lack of a proper system for storage and marketing of fish. There are no sufficient storage facilities at fish landing centres which otherwise could be utilised by fishermen in case of excess supply. Matsyafed base plant serves as the centre for collection of fish purchased from landing centres, but there is no provision to store leftover fish in case of excess supply. Encouraging private players

to set up harbours and storage facilities can increase the availability of such facilities and also make the sector more investmentfriendly. During a stakeholder interview, it was understood that Matsyafed aims to eliminate all private players from the sector by venturing into all areas, even though it is unsuccessful in fulfilling its existing objectives. One of the major requirements in the fisheries sector is better cold storage facility; but from a stakeholder interview, it was clear that Matsyafed does not want to encourage private investment in cold storage facility. On the one hand, an argument is put forward that it is not sustainable for the government to venture into all areas, whereas on the other hand, private investment is not encouraged in building the necessary infrastructure in the sector that can have positive impact on the lives of the fishermen community.

Table 4 describes the case of a private harbour at Kalamukku in Ernakulam district.



Table 4: Case of a Private Harbour at Kalamukku, Ernakulam

Private Harbours: Being Investment-Friendly and Economic



Kalamukku Harbour

Kalamukku harbour is a private-owned harbour in Ernakulam district. Situated on the island coast of Vypin, the harbour is one of the busiest fish markets in the district. The government has no stake in the ownership of the harbour. The operations in the harbour viz., fish landing, auctioning, processing and trading are completely carried out by private parties and individuals. The decades-old harbour is built upon the land that belongs to the harbour owner. The harbour has a diesel and oil bunker inside the compound in addition to an ice plant. The availability of ice, which is a major factor in the storage, processing and transportation of fish, is thus taken care of. However, one of the main reasons the harbour is preferred by traders and fishermen alike is that the intermediary costs incurred in the form of labour and transportation of ice blocks have been cut down. Head-load charges, ice filling charges and other costs like vehicle entry fees are less compared to government-owned harbour. In government-owned harbours, huge costs are incurred in the form of head-load labour. These are unavoidable due to the strong presence of labour unions.

The owner of the private harbour said that labour charges are less here as the traders and labourers have been able to reach an agreement on terms of engagement. The owner gets 0.48 per cent of the auction value for all auctions that take place in the harbour. This is the revenue channel for him. He had to get a trade licence from the concerned local body and had to face many legal and regulatory challenges while registering the ice plant. It took him four years to get clearances for the plant and he had to go through may challenges.

The ability of private parties, including traders and labourers, to bargain and reach a flexible agreement thereby cutting down intermediary costs makes private harbours preferred market places for both traders and fishermen. Moreover, it is an attractive investment opportunity for investors since the harbour owner gets a commission of 0.48 per cent of the total auction value for each auction. Easing up regulatory barriers for private harbours could allow investment in this sector thereby improving competition. This would also mean improved supply chain facilities such as storage and processing facilities as well as reduced transportation costs.

The intervention of fish meal plants in Mangalore and Nagercoil made a difference by procuring the leftover fish and juvenile fish at a fixed base price, which gave solace to fishermen who were able to get a reasonable price for their

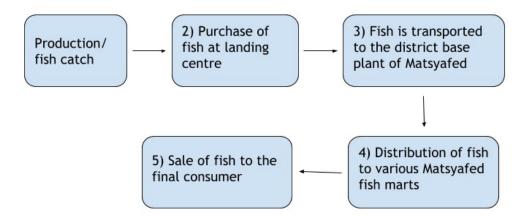
fish. However, this led to an increase in juvenile fishing and crackdown on those involved in juvenile fishing. This also reveals the loophole existing in Kerala Marine Fisheries (Regulation and Management) Act which incriminates only



catching juvenile fishes and not keeping and selling them. The fishermen community is also not cushioned against the price fluctuations amidst the presence of Matsyafed in the supply chain, which further questions the extent of involvement of Matsyafed in procurement and marketing of fish from fishermen groups of cooperative societies affiliated to it.

Figure 6 represents the involvement of Matsyafed in the supply chain of fish

Figure 6: Supply Chain of fish through Matsyafed



The selling price of fish at Matsyafed fish marts is inclusive of the costs for storage, air conditioning, transportation, labour and profit. The small vendors who are located nearby Matsyafed outlets are able to sell fish at a lower price than in fish marts. This could influence consumers in choosing local markets and independent vendors over Matsyafed fish marts considering the cost and accessibility.

The annual per¹8 capita consumption of fish in Kerala is 18.5 kg, which is high compared to the national average of 5 kg. In Kerala, 92.8 per cent¹9 of women (1.6 crore) and 90.1 per cent of men (1.73 crore) consume fish, chicken or meat. Based on the given data (assuming that fish is consumed by them), it is seen that 91 per cent of the total population (3.34 crore²0) in Kerala consume fish. Based on the information on the price of fish in Kerala and interaction with stakeholders, the average price of fish was taken ₹200 per kg in a year and total annual sales of fish comes around ₹11,295 crore.

During field visits to Matsyafed fish marts, it was revealed that the total sale of fish in a single mart comes around ₹1.5 to 2 lakh per month. There are around 27 fishmarts²¹functioning under Matsyafed across Kerala and the total annual sale through these fish marts would come around ₹648 lakh, which is less implying a low market share of approximately 6 per cent for Matsyafed. The state government had announced an outlay of ₹30 crore in the budget speech of 2014-15 for setting up infrastructure for the sale of fresh fish in all districts of

Kerala. But the extent to which fishermen will benefit from marketing of fish through Matsyafed, which has a negligible market share, is questionable.

Many of the leading players in the seafood industry purchase fish directly from fishermen through agents in local area and pay commission to them. In order to ensure the quality of fish they get, boats are taken on lease and fishermen groups are supplied with ice for the storage of fish. The players get the first chance to collect fish from these boats. The transportation of fish to their plants is undertaken by middlemen, for which they receive commission.

Since a wide fluctuation is seen in the price of fish, there will be no prior agreement on the price at which fish will be given to them, but they are more than willing to purchase fish directly from fishermen if they are ready to give it at a fixed price. Such enterprises can afford to purchase large amount of fish as they use advanced technology to store it. It also implies that there is scope for getting better price for fish and bring some stability in price. This will ultimately benefit fishermen, if they take a proactive approach to get involved in marketing their produce.

In the present system, producers are in no way benefitted by the higher selling price of fish to consumers, even in case of fish sold at Matsyafed fish marts, though they are part of cooperatives. Though Matsyafed had tried to procure fish from producers for marketing, it was not successful mainly due to specific factors like its perishable nature and price



fluctuations. Also, majority of fishermen are forced to give share of their produce to tharakans as they have taken money from them. In the state budget for 2018-19, it has been mentioned that assistance from NCDC will be sought for creating cold storage chain

to preserve food and it will be implemented through Matsyafed. However, the effectiveness of Matsyafed in procurement, storage, distribution and managing huge amounts of fish purchased from various fishermen groups is to be considered.

4.4. Limited role of Fishermen Development and Welfare Cooperative Societies under Matsyafed

The primary cooperative societies affiliated to Matsyafed are expected to play an important role in implementing initiatives and strategies devised by Matsyafed among the fishermen communities. The role of cooperative societies is vital in improving the economic and social conditions of its members, as it is believed that collective effort can make a difference.

During an interaction with the representatives of cooperative societies, it was told that women SHGs are more active than fishermen groups. The application for loans is sent to the cluster office and from there to the District office of Matsyafed by the society and it has a major role in deciding the beneficiaries, as they are expected to take stock of the available equipment with the fishing group and scrutinise the purpose for taking loan. Other than conducting nominal administrative requirements, cooperative societies do not function independently and provide means to financially support its members. Loans from Matsyafed, as per various schemes, are disbursed through cooperative societies. These societies also give loan from their own funds starting from ₹10,000 per person and a maximum of ₹50,000 per group.

During an interaction with the representatives of Chellanam-Kandakkadavu Fishermen Development and Welfare Cooperative Society in Ernakulam district, it was found that there are many fishermen groups which are not part of the society. There are 127 women SHGs and only 19 fishermen groups under the society. The inability of the society to meet the financial needs of all fishermen groups is one of the major reasons for excluding many fishermen groups from their ambit. Even if fishermen groups want to join a cooperative society, it is not capable of meeting their high demand for credit.

The main sources of fund for village-level cooperative societies are share capital, loans, deposits, grants, subsidies and allowances, donations, contingency fund, undistributed profits and entry fees. The total share capital value of village-level cooperatives is

capped at ₹5 lakh. Out²² of this, 20,000 'A' class shares each worth ₹10 can be bought by individuals and 3000 'B' class shares each worth ₹100 can be bought only by Matsyafed, the government or any other agency approved by the government. This way, majority stake is held by the government or Matsyafed who can play a major role in decision making and reap the dividends of profit. The relaxation of norms on share capital and allowing third parties to invest in cooperatives will give varied options to raise more funds. The main aim of Matsyafed should be to make cooperatives self-reliant and sustainable.

The main source of income for the cooperative society, in addition to the membership fees and interest for loans, is commission from the sale of fish. The society also purchases fish for Matsyafed when there is a need for it in the Matsya fish mart retail stores. In such cases, the society will appoint a *tharakan* and fish will be purchased under the bill of the society. The *tharakan* will give fish to Matsyafed plant for which he will get commission. The society will also get commission from Matsyafed for purchasing fish for them, which is also a source of income for them. However, it happens rarely and depends on the demand for fish in Matsyafed plants.

Other than purchasing fish for Matsyafed, the society does not venture into marketing fish caught by fishermen groups under them. The reluctance to undertake marketing of fish is largely attributed to the uncertainty in the price of fish and the quantity of fish that will be available on a day. The society fears the prospect of getting into an agreement with a fish trading company and failing to provide the required quantity of fish and getting the right price for it. Moreover, fishermen also want to get money immediately after the sales, which the society is not able to provide in present situation. The society neither has any facilities to store fish in case of excess supply nor the capital to start cold storage without any external financial aid, which again makes the idea of purchasing fish from fishermen for marketing a very distant one.



The cooperative societies do not have a holistic approach in improving the socio-economic condition of its members and have restricted themselves to be a channel to provide loans for members. As mentioned earlier, Matsyafed provides fishing inputs at reasonable rates to fishermen groups through Vyasa stores. However, there has been no initiative from the part of cooperative societies to negotiate on the price of fishing inputs by pooling the requirement of their members. The

participation of members in decision making is a pivotal aspect in determining the success of a cooperative. Matsyafed intends to train and equip fisherfolk in latest technologies of fishing, fish handling, fish processing and marketing for developing a sustainable fishery by adopting it as one of their strategies. However, the cooperative societies do not play an active role in training fishermen, understanding their rights and developing leadership among them.

Table 5: Conservation of Natural Resources through Community Bargaining

Role of cooperatives in preserving common fish resources

Chandran has been a fisherman for the past 27 years. He is retired now due to health issues and lives in Puthenthodu which is a few kilometres away from Chellanam Harbour. The area has many fish farms which are owned by independent farmers as well as export companies. Tiger prawns and mud crabs are the major produce in these farms. Chandran's crab culture is also in this locality. His crabs are exported to Singapore. However, if you ask Chandran whether he gets commensurate benefits, he would just smile and say that he does not know. He never received any benefits from a cooperative society. He blames under-representation of fishermen like him in cooperatives as a primary reason for this.

According to him, the major challenge for inland fish farms in this area is conservation of natural resources. He says that many export processing centres in the locality contaminate the backwaters and fishery resources with chemicals that are used for processing of prawns and crabs. According to Chandran, such practices threaten the livelihood of many small-scale fishermen like him.

The export boom from the 1980s through the 1990s and the advent of new techniques in aquaculture have led to aggressive capital infusion into the seafood export industry. This has led to many export companies setting up shops in areas like Puthenthode. The huge competition in this sector could have led to many unhealthy practices among exporters to reduce the production costs. This must have also resulted in the usage of processing methods that are harmful for the environment or the common fishery resource. While the problem needs to be handled on a different tangent, what village-level cooperatives under Matsyafed could do in this context is to encourage sustainable fishing practices by defining and enforcing community rules on fishing and property rights to common fishery resources in such areas. This community-level management of fishery resources through cooperatives could be effective in preventing unhealthy practices. Thus, cooperatives can also play a role in sustaining the livelihood of fisherfolk and conservation of fish resources.

5. Exploring the Scope for Improvement in the Existing Model

There are many factors which determine the success of a cooperative. Pollnac (1988) has listed a set of attributes in determining the success or failure of small-scale fisheries cooperatives in meeting their objectives. According to him, while the lack of capital has often impeded the formation of cooperatives, the dependence on government subsidies as a financial source has contributed to its failure. The cooperative societies are financially dependent on Matsyafed to meet major needs of its members and are not equipped to meet their high demand for credit.

Disinvestment of government share capital could also help village-level cooperatives to raise money on their own and become self-sustainable. Incidentally, retirement of government share capital was one of the recommendations of the Task Force on Revival of Cooperative Credit Institutions headed by Professor A Vaidyanathan.

The cooperative societies need to undertake the role of marketing fish, so that fishermen will get the right to sell their produce. The initial phase of entry into marketing will be difficult for cooperatives due to high investment in



terms of transportation facilities, and storage facilities. Matsyafed can play a major role in meeting the credit needs of cooperatives for the initial investment. When fishermen cooperatives take up the role of marketing fish, they can replace the role of *tharakans*. The cooperative will take fish from a fishermen group which is part of the cooperative and can give money for their produce then itself, as done by tharakans now. It can also sell the same fish at a higher price to other wholesalers or even small vendors, thereby reducing the number of players in the supply chain. In this way, fishermen group will also get a share of the profit earned by the cooperative by selling fish at a higher price as they own it.

Since fishermen themselves are involved in marketing, auction can also be avoided as they will always try to get the best price for their fish. In order to get the bargaining power over price, there should be proper storage facilities for cooperatives in landing centres. The lack of storage facilities is one of the major reasons for wide fluctuations in the price of fish. The price fluctuation is also a major factor responsible for the indebtedness of fishermen. In case of milk, producers will get a fair base price for

their produce from the dairy cooperatives, due to which the price fluctuation is less. Many of the players in the seafood industry are ready to buy fish directly from fishermen if they are willing to give it at a fixed price throughout the year. The role of marketing cooperatives can either be limited to just finding buyers or it can take up more responsibilities of storing, processing and selling the produce. The marketing cooperatives can enter into an agreement with traders and fix price ahead which will help in reducing price fluctuations, as fish is a commodity for which there is always demand.

The cooperatives also need to play the role of purchasing fishing inputs and fuel at reduced price on behalf of their members by pooling their needs and enjoy the benefits of economies of scale. In the present system, the structure of operations of cooperative societies under Matsyafed is centralised. The decentralised model of functioning of cooperative societies at local level, having more power to take decisions and function independently, is inevitable to bring about a difference in the current scenario.

6. Conclusion

Matsyafed needs to revisit its role and focus more on building up cooperatives as independent and self-sustainable enterprises. The present system of providing credit is rather a leash on cooperative societies and it neither solves the issue of indebtedness of fishermen nor helps them to get fair price for their produce. Fishermen will get control over their produce and freedom to market it only when they are free from debts. Therefore, the first step for the revival of the strategies of Matsyafed is to focus on ways to make fishermen free of debts. The management committee of cooperatives needs to be skilled and efficient

in undertaking the responsibilities of marketing and purchasing and Matsyafed can play an important role in imparting proper training for development of leadership skills. Matsyafed needs to extend its scope of engagement with the fishermen community rather than limiting itself to credit lending alone. The functioning of cooperatives should not be always dependent on subsidies. There is a need for a decentralised approach in the functioning of Matsyafed with fishermen groups at local level organised into cooperatives gaining more power and control over the business of their produce.

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^{3.} Government of Kerala. 2017. Economic Review. State Planning Board.

^{4.} Inland fisheries sector constitutes of fresh water fishing, fish farming, etc. Marine fisheries sector refers to oceanic and marine fishing activities.

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