

## **Poverty Alleviation and Livelihood Diversification: Case of Coastal Villages in Kerala.**

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### **Abstract**

Fisheries make critical contributions to development through providing large scale employment, food security and nutrition, especially in the context of developing countries. One of the most distinctive characteristics of fishing is the presence of uncertainties arising from natural disasters, depletion of stock, pollution, government policies and climate change. Under such uncertainties, fishing may not generate income, which in turn pushes the households to engage in a variety of activities other than fishing to prevent themselves from extreme poverty. This paper portrays the parallel livelihood schemes in the fisheries sector and how well Society for Assisting Fisherwomen (SAF) addresses the livelihood shocks in the fishery sector in Kerala. The paper argues that occupational diversification in the form of SAF could generate additional income for the fisherfolk family and make fisherwomen economically, socially and politically inclusive.

Keywords: Fisheries, Livelihood, Occupational Diversification, Self-help Groups.

### **1. Introduction**

Fishery is one of the important economic activities worldwide contributing large scale employment, food security and nutrition. Fisheries provide nutrient food to poor people at lower cost on the one hand and raise the standard of living of the fishing community on the other hand. Berkes et al. (2001) argue that the presence of uncertainties arises from multitude of risks like depletion of fish stock, environmental pollution, policies of the governments, climate changes and natural disasters and complicate fishing. This creates unexpected pressure on fisherfolks and directly affects their life and livelihood.

The subject of poverty alleviation and livelihood enhancement among coastal fishing communities has been debated since the early 1980's. Smith (1981) pointed out that non-fishing alternatives are important because fishing is a non-sustainable activity in long run and fishers look for other options to maintain their livelihood.

The main economic activity in the coastal villages is fishing and other fishing related activities. It is important to investigate the matter as in the context of uncertainties, when fishing does not generate sufficient income, how does the fisherfolks overcome poverty? Panayoutou (1980) suggested that the small-scale fishermen need to find solutions outside the fishing sector. Arne Kalland (1995) introduced the concept of occupational diversity, in which, many of the villagers in 1870s in Japan were engaged in more than one activity and they move their capital more or less freely between different sections.

Traditionally, fishing community in India has been rested in a gender biased pillar. Women in the fishery sector are more vulnerable than men with respect to livelihood adaptation. Bennet (2005) observed that the important role played by women in the fishing sector and the social space they occupy has often remained invisible to researchers and policy makers. The male centered catching problem dominated over the female centered economic and livelihood issues including processing and marketing sector and Bennet, (2005) argued that many of the researches are often gender blind and fail to see the bigger livelihood picture.

The occupational livelihood promotion schemes include many opportunities to assure food security, decreased economic vulnerability, enhanced incomes, and increased access to basic entitlements other than fishery related activities, especially for the women. In this context, this paper tries to understand how livelihood risks are mitigated through Society for Assistance to Fisherwomen (SAF) in the southern state of Kerala, India.

## **2. The Kerala Experience**

Fisheries is an important sector in India, providing employment to millions of people and contributes to food security of the country. It provides a livelihood for approximately 14 million people, half of them are women. In 2017-18, the total fish production was 12.60 million metric tonnes, with a global position of 3<sup>rd</sup> in fisheries and 2<sup>nd</sup> in aqua culture. Andhra, West Bengal, Gujarat, Kerala and Tamilnadu remained as the top five marine

fish producing states, together contributing to 51.63% of the total production in the country(GOI, 2019).

The state of Kerala, situated in the south western tip of India is the only one state where political boundaries are co-terminus with well-marked physical boundaries. Fishing community in Kerala which has tribal origins were later incorporated in the bottom of the Hindu caste hierarchy and then converted into Islam in Northern region and Christianity in Southern region (Kurien John, 2005).The estimated fisher folk population of Kerala during 2015-16 was about 10.24 lakhs. They contribute about 10.87% of the GSDP from the primary sector (GoK, 2016). The fishing industry in the state is facing multitude of risks, such as overfishing, trawl ban, destruction of coastal habitats, reduced flows of fresh water, urban or agricultural pollution, severe flood, tsunami, draught, trade decisions, adverse climate or depleting stock. The shocks emerging from these risks have severe impact on the livelihood of indigenous communities that traditionally relied on the coastal commons. To internalize the impacts of unanticipated risks; Government has introduced several parallel livelihood promotion schemes for the people who depend on coastal resources. As discussed, the role played by women in the fisheries sector and the gender hierarchies are not yet discussed well in the state. Society for assistance to Fisherwomen (SAF), a local level self-help group, is an institutional arrangement by the Government of Kerala, in this context.

### **3. Methodological note**

The term livelihood is defined by Carney (1998) as the capabilities, assets (including both material and social resources) and activities required for a means of living. There are many possible interpretations for sustainable livelihood frameworks that take asset/vulnerability approach to the analysis of people's livelihoods and several variant models were suggested. The DFID framework defines five types of assets: human capital, social capital, natural capital, physical capital and financial capital, which are influenced by a particular vulnerability context, including trends, shocks and seasonality.

Njuki (2013) defined empowerment as the sum total of changes needed for an individual to realize their full human rights – the interplay of changes in agency<sup>1</sup>, structure<sup>2</sup> and relations<sup>3</sup>. Economic opportunity and social security in a community are important factors that empower women. Information with respect to these factors were collected using a standard schedule. A combination of individual and collective agency is important for overcoming economic, social and political structure built through generations. Agency at individual level is mainly analyzed based on information with respect to self-confidence, individual decision making and power. At the collective level it is analyzed through variables such as participation, leadership and other social variables.

Fieldwork was conducted in Ernakulam and Thrissur districts in Kerala, India during the months of November and December 2018. Though both the districts belong to the central part of Kerala they differ in their historical, political and social conditions and show significant variation in social, cultural and political standards. Twenty units were randomly selected from each district and two members were interviewed from each group using a structured schedule. Thus, a total of eighty fisher women were interviewed as part of this study.

#### **4. Society for Assistance to Fisherwomen (SAF) in Kerala: Alternative Livelihood Enhancement among Fisherfolks**

The SAF was formed in a situation when the coastal people in the country were in uncertainty following the tsunami in 2004. The SAF has established around 2500 units in 11 districts comprising nine coastal and two inland districts. In the year 2010, the Government of Kerala has entrusted SAF as the nodal agency to ensure the sustainability of all such units established by the Department of Fisheries and agencies under it through

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<sup>1</sup> Own aspirations and capabilities, ability to have control over resources and decisions, self-efficacy.

<sup>2</sup> The environment that surrounds and conditions choices (legal, political, institutional, representational...).

<sup>3</sup> The power relations through which she negotiates her path (household, community, national etc)

the project 'Theeramythri' with the objectives of empowering and ensuring the sustainability of the existing units, training fisherwomen and supporting management of micro enterprises and creating bondage of SAF units with local self-governments (SAF, 2015).

#### 4.1 Uncertainties in fishing Sector

Presence of uncertainties is one of the complicated issues in the fisheries sector (Charles, 2001). Uncertainties arise from depletion of stock, pollution, Government policies, climate change and natural disasters. Questions were asked to identify the nature and sources of uncertainties among the members of activity groups. The consolidated result is given in Table 1.

Table 1  
Nature of uncertainty among fisherfolks in the study area  
(in an agreement score 1 to 5 - 1 for least 5 for maximum).

Nature of uncertainty among fisherfolks	1	2	3	4	5	Total
Uncertainty in fish catch	5 (6)	0 (0)	9 (11)	18 (23)	48 (60)	80 (100)
Shortage / depletion of fish catch	4 (5)	3 (4)	8 (10)	16 (20)	49 (61)	80 (100)
Large scale fish catching	20 (25)	14 (18)	6 (8)	8 (10)	32 (40)	80 (100)
Life risk	15 (19)	10 (13)	5 (6)	14 (18)	36 (45)	80 (100)
Away from family for long	26 (33)	8 (10)	3 (4)	15 (19)	28 (35)	80 (100)
Insufficient Income	9 (11)	3 (4)	2 (3)	13 (16)	53 (66)	80 (100)

Percentages in brackets. Source: Primary data collected. December 2018.

The declining stock in fishery resources has severe impact on the livelihood of fisherfolks. Majority suggested that depletion in fish catch (61%), uncertainty in fish catch (60%) and insufficient income (66%) as the major causes of uncertainty. Fisherfolks adopted various strategies such as Loans (57.5%), shifting of jobs (40%), and selling of assets (11.25%) to overcome the uncertainties described above.

#### 4.2 Parallel Livelihood activities in the study area

As Panayoutou (1980) suggested, the solutions to the uncertainties faced by small scale fisherfolks are to be found outside the fishing sector, by encouraging occupational diversity through creating new economic activities apart from fisheries. Various parallel livelihood activities identified in the sample group are given in Table 2.

Table 2  
Various parallel livelihood activities identified

Category	No. of Respondents	Percent
Fish	8	10.0
Food	34	42.5
Garments	15	18.8
Service	14	17.5
Others	9	11.3
Total	80	100.0

Source: Primary data collected. December 2018.

It is observed from the table that majority of the households were engaged in food processing activities (42.5%), followed by garments (15%), service sector (9%) and fishing related activities (8%).

#### 4.3 Economic Inclusion

Economic empowerment can be measured mainly through control over income, ownership of assets, relative contribution to family support, access to and control of family resources. Average monthly income of an active member in a group ranges up to rupees 10,000 per month. Change in assets is another important factor to explore economic well-being with an average monthly change of `3500. Notable changes occurred in all major asset forms except the purchase of land or constructing new building. Majority of the members are running local monthly / weekly installment saving schemes that can be easily managed by the income from the unit.

This study used seven outcome indicator statements to analyze the level of economic inclusion. Table 3 shows the responses to various indicator statements.

Table 3  
Indicators of Economic Inclusion  
(in an agreement score 1 to 5 - 1 for least 5 for maximum).

Economic Factors	1	2	3	4	5	Total
I am getting enough financial security to meet basic needs.	1	5	4	24	46	80
My savings improved.	3	4	6	21	46	80
My standard of living improved.	4	7	3	24	42	80
I do not face any financial problem.	20	16	8	19	17	80
I am able to financially support my family.	4	3	2	21	50	80
My financial independence increased.	2	3	5	33	37	80
My contribution to household income increased.	4	2	3	25	46	80

Source: Primary data collected. December 2018.

Majority of the respondents showed strong preferences towards financial security (88%), savings (84%), standard of living (83%), ability to financially support their family (89%), financial independence (87%) and contribution to household income (89%).

#### 4.4 Social Inclusion

Social empowerment is the process of developing a sense of autonomy and self-confidence and acting individually and collectively to change social relationships, institutions and discourses that exclude poor people and keep them in poverty (Blomkvist, H., 2003). Women empowerment is influenced by their role in the family, society and organization with respect to status, resource use and decision making. This study used seven outcome indicator statements to analyse the changes in social inclusion.

Outcome of the survey based on those statements is given in Table 4.

Table 4  
Indicators of Social Inclusion  
(in an agreement score 1 to 5 - 1 for least 5 for maximum).

Social Factors	1	2	3	4	5	Total
I am recognized within the family.	2	1	3	19	55	80
I am recognized within the society.	2	2	5	30	41	80
My family is getting better social status.	3	4	10	26	37	80
My involvement and representation in local associations increased.	6	15	5	32	22	80
My role in organizational decision making improved.	2	2	10	29	37	80
My control over household resources increased.	0	4	5	34	37	80
My role in family decision making improved.	1	1	4	31	43	80

Source: Primary data collected. December 2018.

All the indicators, recognition within the family (95%), recognition within the society (89%), control over household resources (89%), social status (79%), decision making (93%) and role in organizational decision making (83) give a better position of fisherwomen with respect to social indicators.

#### 4.5 Human and Health Empowerment

Women's social and economic empowerment depends on many other factors, such as human indicators and health indicators. As explained by Njuki, J (2013), empowerment is the sum of changes in agency, structure and relations needed for an individual to realize their human rights as a whole. Human and health indicators are important factors that



determine both individual and group agency of women. Information with respect to human indicators is collected and summarized in the Table 5 below.

Table 5  
 Indicators of Social Inclusion  
 (in an agreement score 1 to 5 - 1 for least 5 for maximum).

<b>Human Factors</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Total</b>
My access to market increased.	4	3	10	30	33	80
I feel empowered.	1	4	3	11	61	80
Domestic violence decreased.	17	10	5	17	31	80
My confidence to travel alone increased.	4	5	9	24	38	80
I feel safe and secure.	2	2	7	29	40	80
I learned new skills and business practices.	1	2	3	40	34	80
I am operating a bank account.	3	3	3	20	51	80

Source: Primary data collected. December 2018.

It is clear that all the variable related to human indicators, learned new skills and business practices (93%), operate a bank account individually (89%) and travel alone (78) have considerably increased.

Changes in health indicators is a central theme for empowerment especially in the case of women. For exploring health outcomes, this study used three statements related to health interventions. Information with respect to these questions are summarized in the table 6.

Table 6  
 Indicators of health Empowerment  
 (in an agreement score 1 to 5 - 1 for least 5 for maximum).

Health Factors	1	2	3	4	5	Total
I have enough health awareness.	2	5	5	24	44	80
I am using proper medications.	5	3	10	20	42	80
My physical and mental well-being improved.	10	7	5	20	38	80

Source: Primary data collected. December 2018.

Majority of the people strongly agreed that their health awareness has increased with respect to the above statements. They stated that their awareness on health matters have improved due to the social interaction and exposure obtained from the programmes.

#### 4.6 Institutional Sustainability

Douglass North (1990) defined institutions as the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction. Oslo (2000) defined institutional development as the process by which individuals, organizations and social systems increase their capacities and performance in relation to goals, resources and environment. As Douglass North (1990) suggests, the major role of institutions in a society is to reduce uncertainty by establishing a stable structure for human interactions. Oslo (2000) suggests that an institution will be sustainable if it is able to secure necessary inputs and support, efficiently and effectively continue with activities and outputs that are valued by its stakeholders. Sustainability of institutions, in this study, is measured through the continuation of activities and level of conflict resolution. As the first step, probing was done about the regular meetings and its frequency. Ninety-nine percentage of groups have regular meetings. A few groups have meetings every week. Regarding the conflicts in the group, only 23 percentage admitted that conflict arises in the group meetings and only person stated that conflicts affect the functioning of the activity. Methods of conflict resolution is an important way to understand sustainability. Summary of the conflict resolution mechanism is given in the Tables 7 and 8.

Table 7  
How conflicts are resolved?

How the conflicts are resolved?	Number of Respondents	Percent
Not Applicable	63	78.8
Common Decision	17	21.2
Total	80	100.0

Source: Primary data collected. December 2018.

Table 8  
What are the operational rules to overcome the conflicts?

What are the operational rules to overcome the conflicts?	Number of Respondents	Percent
Not Applicable	58	72.5
Punishment	1	1.3
Others	21	26.3
Total	80	100.0

Source: Primary data collected. December 2018.

More than seventy percentage of the participants replied that the conflict issues have not affected them. Remaining 17 percentage stated that they go for common decision. The two indicators, a smaller number of conflicts and common decision for conflict resolution signals a valid institutional sustainability.

#### 4.7 Role of Subsidies.

The problems of resource depletion and over catching and the need for better management practices have been discussed as the central theme in fisheries literature. WTO and most International NGOs have highlighted the negative resource-oriented effect of subsidies in fisheries sector. However, the other side of the subsidy story is different. Kurien, 2006 suggests, all the livelihood and social security enhancing subsidies should continue. SAF is offering a huge subsidy, approximately 80 percent of the total expenditure, and the sample data shows that 50 percentage of the fisherwomen started ventures expecting this subsidy. Table 9 below shows total fund mobilized (in lakhs) for the establishment of SAF units.

Table 9  
Financial details of various SAF projects.

No.	Project	Units established	No. benefited	SAF Subsidy	Ben. contribution	Bank Loan	Total	Year of implementation
1	Economic Empowerment	835	8350	144.36	144.36	nil	288.72	2005-09
2	TEAP	639	3798	468.38	93.67	187.35	749.4	2006-08
3	TRP	461	2886	510.9	31.93	95.79	638.62	2007-09
4	PMNRF	270	1350	344.63	21.54	64.61	430.73	2008-10
5	VAFPU	104	520	153.36	9.59	28.75	191.7	2009-11
6	DME 2010-11	30	120	34.26	2.14	6.42	42.82	2011-12
7	DME 2011-12 & 2012-13	108	432	117.09	7.3	21.95	146.36	2012-13
8	DME 2013-14	70	280	94.74	5.92	17.76	118.42	2013-14
9	Vembanad project	71	284	88.01	5.5	16.5	110.01	2014-2015 (conti....)
10	DME 2014-15	157	628	206.21	12.88	38.66	257.75	conti....
11	Supermarket	4	24	24	1.6	6.4	32	2014 - conti....
<b>Total</b>		<b>2749</b>	<b>18672</b>	<b>2185.94</b>	<b>336.43</b>	<b>484.19</b>	<b>3006.53</b>	

Source: Secondary data, SAF 2015

A total subsidy of 2185.94 lakhs was distributed under various schemes under SAF for about 2749 activity groups. Apart from this large subsidies, interest free bank loans are also arranged for the activity groups.

The question of subsidies is well debated in the literature. However, as WHAT, 2000 and Charles (2001) suggested that occupational diversification created employment opportunities in the local community taking advantage of the subsidies. Hence subsidies might work as an incentive for those who work in the parallel livelihood programmes which in turn reduce the pressure of over catching.

## 5. Discussions and Conclusion

The past few years witnessed significant change in fishery management issues from the context of excess catch debate to livelihood approaches in solving fishery related

problems. As observed in the study, any form of occupational diversification outside fisheries has two advantages - this will create additional income in the fisher household and make fisherwomen economically, socially and politically inclusive and lead to overall reduction in fish catch. Gender perspective is an important aspect of livelihoods as it recognizes that the role of women and men are different.

Notable changes occurred in all major asset forms except in purchase of land or construction of new buildings. A vast majority of the respondents agreed that their financial security, savings, standard of living, contribution to family income and financial independence improved. Majority of the respondents strongly agreed that they are recognized with in the family and the society and their role in family decision making has improved. The two indicators, i.e. a smaller number of conflicts and common decision for conflict resolution signal a valid institutional sustainability. It is observed that subsidies work as an incentive for those who work in the parallel livelihood programmes, which in turn reduce the pressure of over catching. Hence, we can conclude that occupational diversification in the form of SAF has created additional income in the fisherfolk family and make fisherwomen economically, socially and politically inclusive.

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