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Attrition in Fisherwomen Activity Groups: A Case Study on Theeramythri, Kerala

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ABSTRACT

Women engage in a wide range of activities in the fisheries and in fishing communities which is vital to a community's well-being. They play a very crucial role in though their contribution is invisible and unacknowledged. In Kerala almost 50% of the posts harvesting activities of the marine fisheries are undertaken by them. The 26th December 2004 Tsunami significantly affected the coastal villages of Kerala. A vast majority of the coast dwelling people were affected by the huge and wide spread destruction of the tragedy. In order to provide relief and rehabilitation to the affected, Department of Fisheries, Kerala implemented multiple programs, which were christened under a common livelihood program named "Theeramythri" under the Society for Assistance to Fisherwomen (SAF). The SAF visions to initiate, encourage and strengthen locally organized activity groups among fisherwomen, thereby providing assistance for expertising their business development skill, resource utilization and management, performance improvement, networking and marketing. The Theeramythri programme facilitates and handholds fisherwomen to engage in gainful self-employment for their economic and social emancipation. Among the total 2500 microenterprise groups formed initially as part of various Tsunami rehabilitation programs, only 1500 are fully in operational at present. Mass closure of 500 groups happened over the years due to various unforeseen reasons. The present study gauges to provide a comprehensive picture about the reasons for the non performance of SAF groups in Kerala with special focus on its technical, economic, institutional and social impacts. The study identifies the attributes determining the non-performance and the role of different stake holders in the nonfunctioning of the micro enterprise units. The study also aims at developing coercive measures for revamping/strengthening/ reconstituting the group and also facilitating innovative ideas for overcoming the vulnerability of an activity group. Statistical and economic tools such as weighted average analysis, cluster analysis percentage analysis and Garrette ranking technique, and have been employed to analyze the data.

Keywords: Theeramythri groups, drop outs, cluster analysis

Women play an active role in secondary sector of marine fisheries. In Kerala, almost 50 per cent of the post-harvest activities are undertaken by them. About 25% of women labour force is involved in pre-harvest activities, 60% in export marketing and 40% in internal marketing. Women involvement is highest in activities like marketing of fish (72%), curing/processing (85%) and peeling (95%). The average annual income of a fisherwoman in Kerala varied according to their occupations ₹ 8232 in sorting, ₹ 9,720 in peeling, ₹ 18,000

in value additions, ₹ 23,328 in curing and ₹ 59,760 in vending, (CMFRI, 2008). Mostly, they are involved in fish marketing followed by housekeeping, fish processing etc. The lack of acknowledgement of women's fishing participation or of the significant contribution to the livelihoods of coastal people is due, in part, to the non-remuneration of their fishing activities. The lack of appropriate economic valuation of subsistence fisheries result in women's fishing activities not being included in most official statistics.

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The extreme events often act as a deterrent to sustainable fisheries income for the fishers over many decades. The catastrophic Indian ocean Tsunami of 26th December 2004 wreathed havoc affected the coastal regions of southern peninsular India. The Tsunami's immediate devastation was far out weighted by its long term damage, large areas of land, were rendered unsuitable for cultivation due to salinity. Major damage in Kerala occurred in two narrow strips of land bound on the west by the Arabian Sea and on the east by a network of backwaters. The socio-economic conditions of the fisher folk in the state are pitiable when compared to the general sections of the population then. The Tsunami which occurred in the 2004 worsened this situation. There exist many government agencies committed for the welfare of the fisher community. The Tsunami rehabilitation programs have concentrated in the light of various localized problems. The fishers department has implemented various programs for the Tsunami hit coastal communities of which women were beneficiaries for most of the policy plans.

Since 2005, Government of Kerala devised and implemented different programs namely Tsunami Rehabilitation Program (TRP), Tsunami Emergency Assistance Program (TEAP) and Prime Ministers National Relief Fund (PMNRF) to provide relief and rehabilitation to the affected. With a total outlay of Rs. 89 crores around 2500 livelihood initiatives and micro enterprises of Tsunami affected were facilitated. The Society for Assistance to Fisher Women (SAF) came into existence in the month of June 2005 under Department of Fisheries immediately after the Tsunami to emancipate the costal population from havoc resulted from the disaster. They mainly aim at socio economic upliftment of the fisherwomen, thereby paving way for the local development. Later, in 2010 various Tsunami relief programs were merged under a new and holistic livelihood program named "Theeramythri". As part of gender mainstreaming SAF augmented the entrepreneurial competency among fisherwomen through implementing microenterprises by utilising local resources. SAF has formed small activity based groups of fisherwomen and extended finacial,technological and managerial support to set up small enterprises suitable for the local area.

SAF livelihood projects started in 2005 with a capital outlay of 32 crores distributed among different groups, across nine districts of Kerala. The major categories of entrepreneurial groups supported under SAF project include garments and textiles, food, fish, coir, supermarket and others. Among the total 2500 microenterprise groups formed initially as part of various Tsunami rehabilitation programs, over 1500 are functioning at present. Mass closure of 500 groups happened over the years due to various unforeseen reasons. No further studies were done in this regard to find out the reasons of closing down of 500 units. Initially each activity group consists of 10 members, got reduced to six and finally limited to four for the better management of the business. Interestingly a large number of units were closed from the fish processing sector which has been crucially studied as an attempt to explore the problems associated with the sector.

Problem Focus

SAF has introduced different schemes and programs, linkages and financial aid towards up gradation and strengthening of institutional arrangements, service delivery mechanisms and marketing efficiency. However, how far such services and mechanisms have come out with improved performance of the units is unknown. Moreover no such studies have been carried out to assess the impact of these services on the activity groups in the performance of the activity groups. An external view point out this as one of the reason for the mass closure of the activity groups. Therefore, the study provides a comprehensive picture about the reasons for the non performance of SAF groups in Kerala with special focus on its technical, economic, institutional and social impacts. The study also aims at developing coercive measures for strengthening/reconstituting the group and also facilitating innovative plans for overcoming the vulnerability of an activity group leading to non functional unit.

Objectives

The overall objective of the study is to analyze the major reasons for the closure of different categories of activity groups and to identify measures for revamping/

reconstituting/strengthening the activity groups. However the specific objectives are to:

- Assess the demographic profile, business profile and reason for joining SAF of micro enterprise groups across various categories.
- Identify the critical attributes determining the nonperformance of the micro enterprises.
- Developing policy measures for reconstituting/ strengthening the activity groups.

Data and Methodology

The study is based on the primary data collected from the different closed down activity groups of SAF with the aid of a well prepared schedule to identify the reasons for the dis-continuation/ non-functioning of the SAF groups. Ten activity groups under each category of non functioning activity groups were taken separately to develop corrective mechanisms by understanding the flaws in monitoring and implementation process. However, thrust was given to fishery sector as numbers of dropouts were high among this sector. So to capture the impediments in the non-functioning SAF groups sampling frame was developed with 100 dropout units covering different enterprises among all the sectors.

The study analyses the socio economic and demographic characteristics of the respondents, group profile of the respondents, their reason for joining SAF, total funds received till date, details of assets created, reasons for drop out etc. The measures taken by the mission coordinator, SAF, Panchayath and others for the reconstitution of the groups were also pointed out in the study.

The study elicits the lessons learnt by each respondent of the dropout category and the willingness of the respondent for re-joining or reconstituting the group was also well discussed in the study. Statistical and economic tools such as weighted average analysis, percentage analysis, Garrette ranking technique, and cluster analysis have been employed to analyze the data. The following Fig. 1 shows the sample locations and percentage of units taken for the study.



Fig. 1: Sample locations and study units

RESULTS AND DISCUSSION

Demographic Profile

The demographic profile of the activity group members reveals that out of 250 respondents worked under these units, 2.3% of the members are below 20 years of age, 27.35 of the members are in between 20-30 years. 35.3% of the members are in the age group of 30-40 years .26.8% of the members is in the age group of 40-50 years. 7.5% of them are in the age group of 40 -50 years. 0.7% of them are above 60 years. The activity group members of the age group of 30-40 years actively participate in the activities. The aged members between 40-50 and above also involve themselves in the activities and discussions held within the group. Age shows the picture of their foresight and determination to take risks for their family. The painful hazards suffered by them throughout these years are the major reasons of these fisher women to engage in this activity group under this age.

The educational status indicated that 49.6% of respondents possessed basic primary level education, 41.6% with matriculation. A very few members of selfhelp groups have their qualification up to plus two and graduation level and above who manage the finances of the whole group. The respondents were aware of their education levels and SAF put huge effort to understand and motivate them to work beyond more than their education levels by providing suitable platforms. The demographic profile of the respondents members are indicated in table 1.

Reasons for Joining SAF

Interactions with the respondents in the study revealed relevant factors about their joining with SAF. Majority of the respondents opined that local bodies like panchayath make them aware about the SAF theeramythri activity groups. Peer groups, SAF guidance meet and community leaders have also got similar role in influencing the fisher women to join these groups. The major reason of these group members for joining with SAF is the alternative livelihood and the high economic benefit from SAF. The major goals in joining SAF groups is t promote income generating activity and there by attaining a selfsustainable alternative livelihood for future. Garrette ranking technique (Table 2.) was used to find out the major reasons of the fisherwomen to joining the SAF Theeramythri activity groups.

Table 1: Demographic profile

Age –Wise Classificatio	on of Respondents			
Age	Respondents			
20-30 yrs	20 (8.00)			
31-40 yrs	94(37.6)			
41-50 yrs	75(30)			
Above 50 yrs	61(24.4)			
Total	250			
Education–Wise Classifica	ation of Respondents			
Qualification	Respondents			
Below 10	124(49.6)			
SSLC	104(41.6)			
Plus Two	16(6.4)			
Degree	6(2.4)			
Total	250			

Table 2: Reasons for joining SAF

Sl. No	. Reasons for Joining SAF	Score	Rank	
1	Alternative Livelihood	66.07	Ι	
2	Financial support	51.38	III	
3	Economic Benefit	59.97	II	
	Out of persuasion from fellow			
4	members	50.18	IV	
5	Better time management	47.52	VI	
6	Skill development	48.9	V	
7	Interaction with SAF mentor groups	45.74	VII	
8	Exposures and Leaderships	44.45	VIII	
9	Conversion of SHGs into Enterprises	43.9	IX	
10	Others	41.96	Х	

Table 2 reveals that seeking an alternative livelihood was felt by 66.07% of the respondents in joining SAF activity groups followed by generating Economic benefit (59.97) and financial support (51.38%). About 50.18% of them joined due to the out of persuasion from the fellow members and 48.9% for enhancing their skill development. Better time management and interactions with the SAF mentor groups motivated about 47.52% and 45.74% of the fisherwomen to join the SAF groups. 44.45 joined the groups for the exposures and

leaderships but 43.9% due to the conversion of SHGs into enterprises.41.96% of the respondents have various other reasons to join the SAF activity groups.

Reasons for Dropouts

Even though women empowerments have been progressed to a great extent there is also a huge increase in mass closure of activity groups. The study identified a steep decline in the number of activity groups since inception. The critical analysis of the activity group members in the step down of their activities and its recommended suggestions could enhance the progressive working of the activity groups and thereby to some extent the mass closure can be reduced.

There could be a number of reasons for the closure of the activity groups. No single method could find out the major reasons of drop outs directly. The study points out that the low performance in the group activities was the main reason for the closure of activity groups. And hence the specific features of an activity group which assess the overall performance of an activity group are analyzed. In this context the major reasons for the drop out were found out under each head of performance such as technical, economic, social and institutional performance (Fig. 2). Again 8 more indicators are given under each head to encounter the reasons more deeply.



Fig. 2: Performance levels of activity groups

The Fig. 2 depicts that the low economic performance (67.87) was the major reason for the closure of activity groups. Whereas some of the groups closed down due to the low technical performance (61.92) followed by social performance (60.33) and Institutional performance (58.99). The interactions revealed that increased debt burden and high cost of production have create a huge loss to the group members thereby

it altered the efficient working of the group. The urge of financial support and modern technology was a need in most of the vulnerable of activity group. The other major reasons in the different performance that led to the low performance was assessed using the weighted average score method and in depth analysis was done on the different factors by the weighted average using the three rating scale and assigning score 3 for high; 2 for medium; 1 for low estimate and comparison was made on the mean satisfaction scores on the different factors by the respondents. Table 3 points out the valid results of the in depth analysis.

It is seen from the above table that the weighted average scores on the reasons for drop out ranges from 33.33 to 80.95. Unsuitable selection of enterprise (70.78) followed by lack of brand name (68.72) were indicated as the major reasons for the low technical performance which leads to the drop out of the activity units of different sectors. The low economic performance was due to the high cost of production and poor financial management (75.31) followed by insufficient working capital (72.33) were a major reason which leads to the mass closure of the different activity groups. Conflict among other stakeholders (66.67) followed by lack of leadership (63.79) and lack of expertise (62.55) are marked as the major reasons for the low performance of the social and institutional aspects.

Sector-wise Cluster Analysis of Dropouts

Cluster analysis of the different indicators with regard to the performance level of the groups identified which all indicators have led to the low performance level and thereby the closure of an activity group. Those indicators were selected and arranged as a cluster of indicators for the reasons for drop out. The results of analysis draw some valid conclusions and are shown as figures below.

The Fig. 3 indicates that a major drop out in the garment sector was due to the unsuitable selection of enterprise (51.56%) followed by conflict among other stakeholders (26.65%), high cost of production (12.6%), poor financial management (5.51%), and irregularity of meeting (4.68%). A number of 75% of the activity groups shut down due to these indicated reasons. The study found that there is an urge of training and skill enhancement

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Economic I	Performance Indicator	S					
Indicators	Weighted average scores						
	Garments	Fish	Food	Coir	Provision	Others	
High cost of production	75.31	70.83	74.79	66.67	33.33	74.80	
Poor returns	67.49	62.50	66.67	42.86	61.11	67.89	
High competition	69.96	66.67	69.66	71.43	66.67	70.32	
Poor financial management	75.31	79.17	74.79	71.43	66.67	75.61	
Market saturation / low demand	73.66	54.17	73.93	80.95	61.11	73.58	
Financial misappropriation	61.73	75.00	61.97	61.90	55.56	61.79	
Continuous loss/ debt burden	65.43	79.17	66.24	66.67	50.00	65.45	
Insufficient working capital	72.43	75.00	72.22	71.43	72.22	72.76	
Technical F	Performance Indicator	s					
Unavailability of raw materials	58.44	54.17	58.12	66.67	44.44	58.13	
Homogeneity of products	57.61	50.00	57.69	61.90	50.00	57.32	
Poor/Lack of adequate marketing strategy	56.79	62.50	56.41	52.38	44.44	56.50	
Unsuitable selection of enterprise	70.78	66.67	70.51	71.43	72.22	70.73	
High maintenance cost	63.79	70.83	63.67	80.95	50.00	63.41	
Lack of brand name	68.72	62.50	68.38	66.67	77.78	69.11	
Others (Specify)	62.96	62.50	63.67	66.67	50.00	63.01	
Social Pe	rformance Indicators						
Conflict among members	65.84	50.00	66.24	66.67	50.00	65.45	
Conflict among other stakeholders	66.67	58.33	67.52	61.90	72.22	66.26	
Lack of leadership	63.79	66.67	64.53	66.67	66.67	63.41	
Lack of expertise	62.55	45.83	62.82	76.19	55.56	62.19	
Irregular supply	59.67	66.67	59.83	66.67	61.11	59.76	
Absenteeism	61.73	75.00	62.39	66.67	50.00	61.38	
Political reason	62.14	45.83	62.82	61.90	55.56	61.79	
Lack of support from local people	47.74	70.83	47.86	66.67	33.33	47.56	
Institutional	Performance Indicate	ors					
Lack of team spirit /Co-operation	62.55	66.67	62.82	66.67	61.11	62.19	
Irregularity of meeting	65.02	70.83	66.24	61.90	61.11	64.63	
Poor book keeping	60.08	75.00	60.68	61.90	50.00	59.76	
Lack support guidance from MC	61.32	62.50	61.97	76.19	44.44	60.98	
Lack of monitoring by SAF	54.32	62.50	54.70	61.90	50.00	54.06	
Delay in fund disbursal	55.14	58.33	55.56	71.43	50.00	54.88	
Poor linkages	55.97	62.50	55.56	66.67	50.00	55.69	
Insufficient funding	60.49	66.67	60.68	66.67	44.44	60.57	

Table 3: Weighted average analysis on different indicators of performance

in this sector for revamping/reconstituting the closed down garment units.

Continuous loss/debt burden (49.9%) marked as the major reason for the closed down of majority of the fish activity groups followed by high maintenance

cost (25.15%), poor financial management (10.34%), continuous loss/debt burden (49.9%), absenteeism (11.00%) and irregularity of meeting (3.11%) The lack of raw materials is the main issue related with the high mantainence cost. Even though Kerala is one of the

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Fig. 4: Reasons for dropout of fish

leading states in fish production, the group members are unable to trade sufficient fishes for their business. It alters their marketing strategies and thereby poor financial management occurs which leads to the continuous loss/ debt burden. As a result of this some of the members of the group got engaged in other alternative jobs causing a huge absenteeism in the group activities which led to insufficient man power for running the groups. Most of the groups have been shrinked to an individual group.

The study inferred that the high cost of production (48.56%) followed by unsuitable selection of enterprise (20.63%), poor financial management (11.1%) lack of

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Fig. 6: Reasons for dropout of coir

support from Mission Coordinators (10.81%), and conflict among the stake holders (8.9%) are the major reasons for the dropouts of food units. Interactive sessions, meetings and discussions should be made to strengthen the relationships between the group members, stakeholders and Mission coordinators. The implementing agency should find more consistent measures to cure the high cost of production thereby the closed down units can give a rebirth in their activities.

Coir was one of the most endangered sectors identified in the study. The study inferred that about 52.33% of the dropouts are due to the high mantainence cost. Lack of expertise cause 33.52% of the coir groups to shut down from their activities. Market saturation/low demand



Fig. 7: Reasons for dropout of provisional outlets

for the coir products cause 8.64% of the dropouts and about 5.51% of coir groups closed down due to the lack of support from the mission coordinators for their group activities. The study also found that the major problems for the coir groups are the scarcity of husks. Traditionally the husk market was controlled by a small number of monopoly husk retters. Husks are only a by product of coconuts and therefore their availability is dependent not only on the production of nuts but also on the harvesting and dehusking practices. Further, due to the bulky nature of the husks and the scattered nature of production of coconuts the transportation costs are relatively high. A significant proportion of the coconuts which are dehusked in individual households for culinary purposes cannot be economically collected for industrial use. In short, the number of husks economically available to the industry is limited to the mature coconuts harvested and dehusked within the economic transport distance and to coconuts that are dehusked on a commercial basis. This huge process is the main reason for the high maintenance cost of the coir. So at any cost raw materials should be made available to the activity group members. Lack of uniformity also becomes a major handicap in power loom weaving. Training and man power could be increased for the lack of expertise as well as for the market saturation.

Product diversification and technological up gradation should be done at the earliest for revamping the vulnerable groups. Both require incorporation of modern science and technology into the production process and involve substantial research input. Whatever be the exact reasons, the present lethargy of this should be the modernization of these units for a successful venture in future. This will reduce the dropout rate and thereby the sustainability of the coir groups could happen. Proper awareness about the products, marketing strategies, export reaches etc should be given to the women members in order to self motivate them as the successful coir entrepreneurs of future.

Provisional outlets include both the supermarkets as well as the stationary stores. The figure depicts that lack of brand name was the major reason for the drop out of the provisional outlets. Insufficient working capital insists 23.52% of the provisional outlets to dropouts.13.36% of the groups closed down due to the conflicts among others and about 9.86% due to the lack of support/cooperation of the members. The irregularity incurred in the meetings cause 2.7% of the activity groups to dropouts. The study elucidates that since the ND Salim et al.



Fig. 8: Reasons for dropout of "Others"

inception of the provisional outlets the lack of a brand name was their major problem. Most of the outlets were propelled out due to the lack of this brand name thereby business got down and cause to the high rate of drop outs in this sector. Even though SAF mainly focuses on the upliftment of the poor fisherwomen by providing suitable alternative livelihoods, the sustainability of these groups is not only the responsibility of the group members but also it is vested with the SAF. So proper measures could be under taken by the apex federations as well as SAF with a clear cut perspective for a good brand name. Moreover SAF should continue its monitoring prospects for the other quoted reasons above for the decline of activity groups.

The others group was the biggest among other categories since it includes a vast variety of activities such as beauty parlour, hiring services, DTP, computer centre etc. The results point outs that most of the dropout in the others sector occur due to the unsuitable selection of enterprise (52.33%) followed by poor financial management (33.52%), conflict among other stakeholders (8.64%), irregularity in meetings (5.51%) etc. The study elucidate that other categories mainly include the new innovative ideas by the group members. The courage and self determination of the group members was ever appreciable but these new innovations have become a big failure to some of them and cause the dropout of activity group. So suitable interventions should be made according to the type of activity group. Since it includes a vast variety of activity groups, suggestions and policy implications should be done through analysis of the need and type of the activity group. Suggesting a common strategical approach for preventing the vulnerability of activity group may lead to more dropouts.

CONCLUSION

The success of micro enterprise groups depends greatly on the empowering environment ensure or provide by the implementing agencies. One of the strategies adopted by SAF for promotion of successful microenterprises through providing business opportunities to the fisherwomen for the better livelihood option is ever remarkable. But it is also true that on account of certain reasons most of these enterprises by the SAF got closed down over the years. The unsuitable selection of the enterprise and high cost of production marked are marked as the major reasons for these dropouts. Moreover poor financial management, lack of brand name conflict among others, lack of support from the mission coordinators also cause a few of the enterprises to get close down. The rising prices of raw materials and packing materials adversely affect the production led to the high cost of production. Due to the availability

of different types of products from multinationals, marketing has become a serious problem and the activity groups producing more or less the same type of products got worsly affected.

The ease of availing bank loans as well as subsidy given by SAF is the major reasons for joining these groups. But these may be of help during the initial stage of the enterprise, but in the long run, the activity selected, its suitability to the group and the locality, marketing support received etc are more important.. Also capital invested in fixed assets as well as regular accounting of expenses may also influence enterprise performance. It was observed that correct choice of activity was one of the most important aspects that determined the performance of the enterprise. It is important to study the demand-supply gap in the area before choosing a particular activity. It was observed that certain common activities like 'catering, supermarket, DTP centre, hiring services, flour mill etc were being chosen by groups without any consideration of the demandsupply situation in the locality. This resulted in intense competition and finally closure of some enterprises. On account of all these reasons for the dropouts the study suggested "Theeramythri Clinic "for revamping and reconstituting the closed down units by SAF. The training and skill enhancement are the prime concern of the clinic for upgrading the closed down or vulnerable groups. The technology improvement and updating measures are also vested with these clinics for the enhancement of the activity groups.

References

- Anna Maria Lind, 2006, "Struggle and Development: Approaching gender bias in Practical International Development Work", Orebro, Orebro University.
- FAO, 1986. Role of women in food and agricultural production in the region. FAO Eighteenth Regional Conference for the Near East. Istanbul, Turkey. Rome, FAO, NERC/86/5
- Hassan Femeena and Sathiadhas, R. 2007. "Technological changes and its implications on the empowerment of Fisherwomen". *Sea Food Export Journal.* XXXVII(3): 15-27.

- Jayaraman, R. 2000. Role of Self-Help Groups in Fisherwomen Development in India. Paper presented at the (Fourth International Conference of the Coastal Zone Canada Association held during 17-21 September 2000, Saint John, NB, Canada).
- Jayaraman, R. 2002. Performance of Self-Help Groups in Fisherwomen Development in India. Paper presented at the Coastal Zone Asia Pacific Conference, 12-16 May 2002 Bangkok, Thailand (Virginia Institute of Marine Sciences, USA).
- Jayaraman, R. 2008. "Performance Analysis of Fisherwomen Selfhelp Groups in Tamil Nadu". *Tamil Nadu J. Vet. Anim. Sci.*, 4(2): 52-55.
- Khader Vijaya, Narayanakumar, R., Lakshmi, J., Dhanpal, K., Kasim, H.M. Sathiadhas, R. and Sudhakara. N.S. 2006. "Nutritional Status and Socioeconomic Empowerment of Fisherwomen in the Coastal Ecosystem of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu, India".
- Moore, J.R. and Donald W.E. 1976. Marketing Channels from a Manufacturer's Perspective: Are They Really Managed? In: Marketing 1776-1976.
- Patterson, J. and Samuel, V.D. 2005. "Participatory Approach of Fisherwomen in Crab Fattening for Alternate Income Generation in Tuticorin, Southeast Coast of India". Asian Fisheries Sci., 18: 153-159.
- Patterson, J., Linden, E., Bierbrier, C., Wilhelmsson, D., Lofgren, I., Obura, D. and Edward, J.K.P. 2008. "Empowering fisher women through ICT in reef conservation and management a case study from Tuticorin coast of the Gulf of Mannar, Southeastern India". Proceedings of the 11th International Coral Reef Symposium, Ft. Lauderdale, Florida.
- Shyam, S. and Salim 2013. Gender Mainstreaming and Women Empowerment – Reflections and Upshots from fishing industry of Kerala. Discovery Agriculture, 1(1): 51-59.
- Shyam, S., Salim and Geetha, R. 2013. Empowerment of fisherwomen in Kerala – an assessment. Indian Journal of Fisheries, 60(3): 73-80.
- Shyam, S., Salim and Fernandez, Reeja and Athira, N.R. 2016. *Performance Appraisal of Theeramythri Initiatives in Kerala: Benefit Monitoring Assessment and Visioning for the Future.* Technical Report. ICAR-Central Marine Fisheries Research Institute, Kochi.