EMPOWERMENT OF WOMEN INVOLVED IN CLAM FISHERIES OF KERALA - A CASE STUDY

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Abstract

Fisherwomen contribute significantly for the coastal economy as well as their own disposable household income. Yet their socio-economic status in the society is lagging far behind the man. The high degree of wage disparity between men and women for doing the same job indicates the general level of exploitation and gender inequalities. The special feature of clam fisheries is that women exclusively perform the entire activities pertaining from its collection from the backwaters and ultimate disposal to consumers. The present study reveals that women in clam fisheries are performing time consuming and prolonged labour intensive works. These heavy workloads leave very little time for rest, leisure or the pursuit of any other activities. The study also focused attention on the need for empowerment of women involved in clam fisheries in the Vembanadu and Ashlamudi lakes of Kerala.

INTRODUCTION

Fisheries form the most important resource for communities inhabiting in coastal regions and it provides the major livelihood of them. Besides attending routine family chores, coastal women also support the fisheries sector through their involvement in various operations of small- scale fisheries. Women are also actively involved in the collection of bivalves and their marketing to ornamental dealers and lime collectors (Shaleesha, 1997). Fishing communities is almost solely depending on the sea resources for

their livelihood and the roles that a fisherwoman plays are integral for the maintenance and economic prosperity of the family. Women are mostly engaged in peeling, trading, processing and various other activities in the post-harvest sector of fisheries. The Socio Economic Evaluation and Technology Transfer Division (SEETTD) of Central Marine Fisheries Research Institute (CMFRI), Kochi was entrusted to conduct a study of coastal fisherwomen in Kerala as a part of the National Agricultural Technology Project (NATP) of "Studies on fisherwomen in coastal ecosystem of Andhra Pradesh, Karnataka, Tamil Nadu and Kerala". It is an Inter-Institutional effort as the Acharya N.G.Ranga Agricultural University (ANGRAU) of Andhra Pradesh, College of Fisheries, Mangalore and CMFRI, Cochin are involved and a multidisciplinary approach is adopted to assess the status, needs and empowerment of fisherwomen. The stakeholders of fisherwomen identified for detailed study in different localities include fish trading women, peelers, processors, curers and clam collectors-cum-processors. The present study focuses attention on the empowerment of women involved in clam fisheries in *Vembanadu* and *Ashtamudi* lakes of Kerala.

Srivastava (1985) stated that all women irrespective of status of the family provide 14 to 18 hours of productive physical labour in different chores. The analysis of the present study also showed that women spent long hours for performing time consuming and labour intensive works in fisheries sector. These heavy workloads leave very little time for rest, leisure or the pursuit of other activities. Although women contribute significantly for the economy as well as the disposable household income, their socio-economic status in society is still lagging far behind the men. The high degree of wage disparity between men and women for doing the same job indicates the general level of exploitation and gender inequalities. According to Dehadrai (2002), women are remaining as 'invisible farmers' despite being major producers of food in terms of value, volume and hours worked in agriculture and allied activities.

Clam, which is a bivalve, under the family of mollusca, forms an important resource of the estuaries of Kerala. The dominant species are *Villorita cyprinoides, Paphia malabarica* and *Meretrix casta*. Its meat is nutritious and tasty and comparable to any seafood. Apart from domestic demand, it has got export potential also. Smaller sized clam are used as a protein source in poultry and fish feed. Some times it is used even as manure, which is not at all advisable. Clamshell contains 33-40% calcium. It is used as a raw material in calcium based industries like cement, lime, washing soda etc.

Clam picking is an important means of livelihood for communities inhabiting in areas near to estuaries and backwaters. Clam picking and processing provides livelihood for substantial number of women inhabited

along the banks of *Vembanadu* and *Ashtamudi* lakes.

Objectives

The specific objectives of the present study are to get an overall picture of

- The socio-economic status of fisher women involved in clam fisheries
- Role of women in clam fishery operations prevalent in Kerala coast
- Occupational health hazards encountered by women engaged in clam fisheries and
- To assess the problems and prospects for the upliftment of womenfolk involved in clam fisheries.

Materials and Methods

After conducting a preliminary survey all along the coast of Kerala, five sample villages have been selected for detailed study. The selected villages are Aroor, Anjilikkad, Thekkumbhagam, Neendakara and Poovar. Among this Anjilikkad and Thekkumbhagam are the areas where clam fisheries is prominent. Anjilikkad is located along the banks of *Vembanadu* lake near Aroor and Thekkumbagam is in the banks of *Ashtamudi* lake near Kollam.

V.cyprinoides is the major clam resource of *Vembanadu* lake and *P.malabarica* is the major resource of *Ashtamudi* lake. Hence these two centres rich in clam fishery-Anjilikkad in Alappuzha district and Thekkumbhagam in Kollam district were purposely selected for the study considering their importance in clam fishery.

The socio-economic study was carried out in all the households of Anjilikkad and Thekkumbhagam villages where women are engaged in works related to clam fisheries. For this purpose an interview schedule was prepared, pre-tested and the study was carried out during January to December, 2002. Simple tabular analysis was done for the interpretation of the results.

Results and Discussion

1 Socio-economic profile of stakeholders

Altogether 47 families of Anjilikkad and 83 families of Thekkumbhagam area were surveyed for the study. All are stakeholders of clam fishery for their livelihood. In Anjilikkad the total population is 240 of which 43 % are males and 57% females. In 23 families, there are only 2-4 members and this

comes to 49%. A family having 5-6 members are 28% and the rest 23% have 7-10 members. All the fisher folk in this area belong to Hindu religion.

At Thekkumbhagam the total population of all 83 households comes to 328, of which 51% are males and the rest females. Here 67% of families have only 2-4 members and 28% have 5-6 members. About 55 families have more than 7 members. All the fisher folk here belong to Christian community.

The age wise classification of population in these centres is given in Table 1. At Anjilikkad more people are in the age group of 7-18 years, whereas in Thekkumbhagam more people are in 19-35 age group. Comparatively less number of people in the age group of 0-6 indicates the adoption of small family norms in both the villages. Between the two centres, more literate people (91%) are at Thekkumbhagam. Most of them were educated up to secondary school. About 10% of population in Anjilikkad and 8% in Thekkumbhagam have got college education.

Table 1
Age composition of population in sample households

	Number (%)									
Age group	*0-6*		*7-18*		*19-35*		*36-50*		*>50*	
Village	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*
Anjlikkad	17 (7%)	25 (10%)	62 (26%)	32 (13%)	20 (8%)	8 (3%)	25 (10%)	26 (11%)	14 (7%)	11 (5%)
Thekkumb-hagam	18 (6%)	18 (6%)	36 (11%)	29 (9%)	53 (16%)	55 (17%)	31 (9%)	30 (9%)	28 (9%)	25 (8%)

Table 2 gives information on the occupational pattern of fishermen in the families where women are engaged in clam fisheries. It is interesting to note that 34% of men at Anjilikkad and 12% of men in Thekkumbhagam are engaged in occupation other than fishing. In Anjilikkad substantial number of men folk are involved in agriculture work and also goes for masonry work. However in Thekkumbhagam more men are involved in fishing as clam collection is exclusively carried out by them and the processing of Neendakara harbour also provides remunerative opportunities.

Table 2
Comparative employment status of fisher folk in sample households

Village	*Occupation*		
	Fishing	*Fishery related activities*	*Non fishery activities*
Anjlikkad	46 (37%)	37 (29%)	42 (34%)
Thekkumbhagam	78(43%)	81(45%)	21(12%)

About occupational pattern of women, one interesting feature noticed is that clam fishery of Anjilikkad is entirely managed by women. Here 52% of women involved in clam fisheries are carrying out all operations right from capture to marketing. They are having a particular tactics to collect clam. Others are doing only processing and marketing. Women going for clam collection are in the age group of above 35 years. Ladies in the present generation are not showing any keen interest for clam picking. However at Thekkumbhagam women are not going for clam collection, but men are collecting clam from *Ashtamudi* lake with the help of hand scoop net or a scoop net attached to a long wooden pole. Here clams are collected throughout the year, the peak season being from February to May. As far as women respondents, about half of them are engaged in clam processing and marketing, and the rest engaged only in clam processing.

Altogether about half of the respondents were having their own canoe, which is used for fishing activities. All the respondents at Anjilikkad were having their own houses with more than 200 sq.ft of living space. Of these 57% is of pucca type, 30% kutcha type and 13% RCC houses. At Thekkumbhagam all except 4% are having own houses. Here 70% of houses are of kutcha type, 20% RCC and 10% pucca type. About 81% of these houses are electrified and 9% are having LPG connection.

In both the centers, they spent half of their income for food. The main food items are rice and fish. They spent comparatively lesser amount for fruits and vegetables. Half of the respondents in both the centers own articles like, television, refrigerator, radio and tape recorder. Another feature noticed common in both the centers is that the fisherwomen are not showing much interest in livestock rearing.

2 Clam fishery operations

Unlike other parts of the country, women themselves are engaged in clam picking and processing at Anjilikkad. For picking clam, they go to backwaters in their own canoes at about 3 o'clock in early morning. After collecting clam, they came back by about 2 o'clock in the afternoon. They wash the clam and boil it with a little quantity of saline water either on the banks of the backwaters or in the backyards of their house. Boiling helps to open up the shell valves, and then they pick out the meat. This meat they either supply to traders or take themselves to some local market at Aroor or Edakochi for selling. According to them, on an average they can earn about Rs.200/- per day. The shells kept aside also will be sold out once in a while and fetch them some income. Its price will be decided according to its size, and 'A' Grade shell fetch about Rs. 700/- per tonne. Now the shells are sold only to the approved societies as per the Government order. One such

society in Anjilikkad is Lime-shell Vyavasaya Co-operative Society Lid. This monopoly right always deprives a fair price to the real collectors of clam. Although the shell collectors are also members of this society, the merchants' alone dominate in decision-making, as these people will be mostly in the committee. Only the shell collector will be the member and lack of education among these people also is exploited. The societies procure shell at the rate of 50 paise per kilogram and disposing the shells to agents of Tamilnadu. The shells are used as raw material for cement factory and pharmaceutical manufacturing units.

At Thekkumbhagam, only men are collecting clam from backwaters with the help of hand scoop net or a scoop net attached to a long wooden pole. Here women are involved only in post harvest operations. Here also shells are sold in bulk to the wholesaler through the agents.

3 Occupational health hazards

Long hours of monotonous work are causing specific health hazards to fisherwomen depending on the type of work. At Anjilikkad area 33% of women engaged in clam fisheries are suffering with backache. As they are exposed to smoke, they are also suffering with headache (19%). Because of hard work 21% of women engaged were having myalgia. During their hard work, they are not caring about the diet. Hence it was observed that 17% of women engaged in clam fisheries are found to have anemia. On prolonged working, those who are going for clam picking suffer problems with sight and hearing.

4 Present problems

- Low literacy
- Restricted mobility
- Limited access to training programmes and information
- Lack of organized women groups
- Social and cultural issues
- Exclusion from decision making
- Destruction of fishing ground due to pollution. Clam will be abundant only in sandy region. Most of the sandy regions here now became mud and dirty area with pollution and also affected by reduced tidal force affected by pollution
- Ignorance on modern processing techniques
- Long hours of heavy monotonous work

- Low productivity and limited access to new technology
- Occupational health hazards
- Ergonomic problems
- Increasing fishing pressure
- Reclamation of backwaters.

5 Empowerment model

Gender bias and disparity highly hampers the balanced development of women. Hence the empowerment model adopted at Anjilikkad and Thekkumbhagam villages on clam fisherwomen revolves around extension education, awareness building, training, enhanced adoption level and techno-economic empowerment. Reduction of poverty level and enhancement of the nutritional status of women and children has been accorded priority. The anthropometric assessment coupled with diet survey and medical camps conducted in the villages revealed the nutritional and health status including the occupational hazards. Hence appropriate linkages has been created and developed between the stakeholders and the existing formal medical system of primary health centres.

Extension education in the form of imparting periodic capsule training programmes to women led to technological empowerment. Adoption of modern techniques to a greater extent helped to reduce human drudgery for picking of clams. The training programmes further enabled them to modernize their processing and preservation techniques. Methodologies on the preparation of value added products enhanced their capacity building in terms of increasing their employment opportunities, net earnings, household disposable income, savings, investment and overall standard of living. The self-help groups undergone the training and adopting the same have been linked with the formal financial institutions for easy accessibility of credit for the uninterrupted functioning of their micro-enterprises. Thus the empowerment model implemented here was interlinked with the extension education from the first stage to the final phase of techno-economic empowerment.

6 Suggested measures for empowerment

There is a need for improving the quality control system to ensure wholesomeness of the processed product as well as uniformity in quality. The quality of raw material and the technology involved in processing play a key role in maintaining quality standards. Spoilage is the result of a whole series of complicated changes brought about in clam by the action of enzymes in the organisms, bacteria and various chemicals. The quality of

the product also changes because of lack of suitable facilities for the storage and distribution of the products.

In spite of selling the product in local market the meat can be exported, if some quality precautions are taken. This will help the clam collectors/ processors to earn more money. Clams inhabit in a region of mud and sand, where water flow is limited. Hence its intestine will be having mud and sand, which should be removed. The following procedure is required to obtain high quality clam meat.

- After harvest keep the animal for 24 hours in the reservoir filled with water collected from backwater. As there is no further feeding, this step helps to empty the stomach.
- Then keep the animal in water containing 5ppm Chlorine for 1 hour. All waste material left in stomach will be thus cleaned out.
- Take out the animal and wash with potable water.
- Boil for 5 minutes in potable water. This helps to open out the shell valves.
- Then shuck out the meat.
- Ice it properly and take it to an export processing unit, where it will be further processed according to buyer's requirements.

In Kerala, the present practice is to sell the product in local market. However they could not sell out the meat completely on some days. As they are not aware of any method of processing, they could not preserve it for further use.

- Adopt some processing method to preserve the meat for later use.
- Prepare some value added products, so that better returns are possible.
- The marketing channel for the shell has to be strengthened. Some method has to be developed to avoid middleman when shells are sold..
- Exporting of shells also has to be started, since avenues are there.
- Start exporting directly as there is considerable potential for product diversification and export.
- Organized clean workplace should be provided.
- Technologies for good work postures should be developed.
- Women friendly technology should be developed.
- Extension services should be made more woman friendly.
- Easy availability of credit.

- Involvement of local bodies to enhance the infrastructure and storage facilities with nominal cost.

Conclusion

In the recent past, gender issues and women's contribution in fisheries has become the subject of global consideration. Therefore, technology exposure in an integrated manner through active learning is a major concern for empowering women. Every woman is an entrepreneur as she manages, organizes and assures responsibility. Fisherwomen involved in clam fisheries in Kerala is still under the clutches of poverty and low income trap in spite of their long working hours and tedious efforts of doing collection, processing and sales of clams by themselves mostly single handedly. Although good export potential is there, they are still depending on local markets for disposal of clam meat. Market expansion and export promotion through value addition and product diversification may enhance the price and thereby the income earning potential of these fisherwomen (Sathiadhas *et al.*, 2002 ;Sathiadhas. R and Femeena Hassan, 2003).

The capacity building of these fisherwomen through training on modern methods of harvesting clams and preparation of value added products are essential to enhance productivity and profitability of this avocation. Lack of credit coupled with low investment compels them to do this as a small scale family enterprise for their survival and sustenance. Promotion of Self Help Groups (SHGs) and provision of easy credit facilities by linking them with institutional agencies will empower them to increase production and diversified marketing of clams, which will improve their livelihood and socio-economic status.

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