

Marine Fisheries Research and Management

Editors

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61 Potential techno - economic role of women in fisheries

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ABSTRACT

In the field of fisheries women play an important, perhaps a dominant role in many shore based activities. Prawn peeling, fish curing, drying, marketing, net making, fishing in canals and clam shell collection are the major thrust areas in which women participate. In Tamilnadu coast they are involved very much in seaweed collection, chank collection and other fishery related activities too. The little share of income thus earned is contributed to their family. Still, their status is considered far below the poverty line and are denied a lot. Considering the importance of fisherwomen and their role in fisheries, more emphasis need to be given for the betterment of the fisherwomen in India.

Introduction

In India about 10 lakh fisherwomen are inhabiting 2500 fishing villages spread over a coast line of about 8128 km. This statistics does not include another major sector in the fishing industry, the inland fisheries and aquaculture. Women play an important role in fisheries all along the coastal areas and all the shore based activities are more or less women oriented. They do involve themselves in multi faceted activities often unperceptible to the world outside.

Women have from all time been actively involved in fisheries, and in some parts of the world they have been good navigators too. They are involved even in massive capture fishery as still exists in a limited area in our neighbouring country of Sri Lanka. In prawn farming women have been involved in pre and post harvest operations. Traditionally women have stayed at home looked after the children and attended primarily to domestic chores which are entirely a female responsibility. But women from the poorer fishing

households engage themselves in fishing occupation in order to meet their financial requirements atleast partially to share the burden of the family needs. The major income earning activity for such women have been head loading and fish vending either in the markets or in the streets. Several women from fishing households also engage themselves in defibring of coconut husks and manual rope making. Many also do fish drying and net making. However, it is clear that there was practically no fishing family where women didn't know and actually performing the job of fish processing and related activities. Thus by enjoying the salt mixed breeze they add salt to their family food. Many research studies were concentrated towards this poor slots to bring out their importance and role played by them. There are many fisherwomen who are altruistic. But there is a compelling need to highlight their work and give them due recognition. Keeping this in view, few studies has been conducted in this line. Results of studies and future research emphasised with some recommendations, are presented below.

Data collection and analysis

The CMFRI is the premier Institute which has conducted various studies on the involvement of fisherwomen in fisheries and related activities in the country. Villages in and around Ernakulam in Kerala where women outnumber men mainly, were selected as study areas as these places are dominated by women who play active role in fisheries. Some villages in Ramanathapuram District of TamilNadu were selected to study the involvement of the fisherwomen as they are very much engaged in seaweed collection. Using simple random sampling procedure the data were collected. The data were collected from the fisherwomen by interviews using interview schedules. The data were statistically analysed and the results are presented here.

Role of women in small scale fisheries

A study was conducted on " Role of women in small scale fisheries-Present status and potential involvement", at Vypeenkara , Ernakulam where women play very important role in the pre and post-harvest operations especially in prawn peeling , fish trading, net making , fishing in the canals and clam shell collection.

Prawn peeling

Peeled prawn is one of the important items of foreign exchange earner to the country. Prawn peeling is a seasonal activity coinciding with prawn fishing, the peak season being August to November in Kerala. In a peeling shed of 3 X 4 m area 10- 15 women are engaged at a time. A women can peel about 1 kg of prawn in an hour and can earn Rs 6/-. This activity helped them to generate a moderate income. These activities are highly seasonal.

Curing,drying and trading of fish

Once the catch is landed women take over the entire post harvest operations namely sorting, on the spot auctioning, gutting and salting, (curing) drying, carrying the dried fish to markets. Grading and processing is also done by them. Curing of fish is practised on the seashore by small traders with the help of a few women. Marine fisherwomen are also found to be engaged in trading of fresh and dried fish.

Net mending

Net making is a leisure time activity. Fisherwomen engage themselves in handbraiding of fishing nets. Braiding of nylon net for boats is the most important activity. Normally, a period of one month is required to complete the job. A woman can braid a maximum of 1 kg net a week. The net making by women is decreasing with the establishment of nylon net factories.

In prawn peeling and net making women of younger age groups had better participation. The participation is governed by caste, though there is no caste barrier for taking up fishing activities. Availability of infrastructure is a major factor influencing women participation in fishery related activities.

Fishing in canals

Fishing in the canals and the impounded water areas for prawns and priced fish such as pearlspot during the low tide are the important activities of women in areas where prawn/fish farming activities take place. Women move in water in a line, with narrow mouthed aluminium and earthen pots in their hand. They do help their husbands in cast netting and collection of prawn larvae from the surf. During the paddy season they engage themselves in agricultural operations.

Collection of clam shells.

During the monsoon season due to freshwater influx marine clams are washed ashore. July to September is the main season for clam shell collection in Kerala, but women and children are found to be engaged in this activity throughout the year. Women stand in knee deep water and scoop the clams with the help of iron plate and collect them in wattavala. Clam shells thus collected are heaped on the beach and the same is loaded in trucks and send to other states mainly Tamilnadu.

Decision making by fisherwomen

In decision making pertaining to occupation 26% played active and 61% passive role respectively. Women played a dominant role in family budgetting including expenditure. In health and family planning 75% of the women actively participated in decision making, less than 40 % played active role in deciding the education of their children and 50% in finding a suitable match for their children. Women had a dominant role in deciding food, health and clothing and in all other areas the decision was men oriented.

Participation of women in shore based activities

According to the studies conducted by the Bay of Bengal Programme and the CMFRI in the early 1980s on the role of women in small scale fisheries, women in Tamil Nadu engaged themselves in fish curing, marketing, net making and prawn seed and seaweed collection. In Andhra, they were engaged in collecting fish and molluscan shells. In Orissa, major contribution by women to small scale fisheries was in drying, curing, marketing, shrimp processing and net making. In West Bengal, women play a limited role since the number of days spend by the fishermen in actual fishing was relatively low and engaged themselves in net making, which in other states were dominated by women. Fish drying and curing in West Bengal was carried out by women from other communities and not by fisher women. In Maharashtra, the entire fishing economy revolving around Mumbai was controlled by women.

In Gujarat the handling and processing were done by women. In Kerala, net making, fish curing and drying, shrimp processing, fish and clam shell collection were the major areas in which women had major roles to play. In Lakshadweep particularly in Minicoy the major fishery product known as

Masmin and Riha Akru of Tuna are produced by women. In salt production from sea water in Tamil Nadu, the labour contributed women to men was 4:1.

In Malaysia, women were engaged in large number in fish processing industry and ice plants. The string of the purse in small scale fisheries in Sri Lanka was held by women. They venture themselves in fishing using beach seines. They also engaged themselves in whole sale marketing. In Thailand fish processing, fresh water fish farming and management of fish agents were the areas dominated by women. In China integrated fish farming is managed by women and pearl production industry in Japan is mainly in the hands of women.

The introduction of mechanised fishing (1952) under the erst while Indo-Norwegian project in Quilon in Kerala brought in large scale opportunities for women. The speed of the innovation led to the large scale commercialisation of fishing operations and fish landing moved from the village to the centralised jetty and harbours. Women living near these areas started getting more opportunities in peeling and processing, while women in interior fishing villages and traditional fishing communities continued the activities. Prawn peeling is on small scale in their home steads.

The advent of motorisation neccessiated centralised landings atleast for some season and as a result the women in traditional fishing communities were losing their access to fish. The mechanisation of net making also marginalised them from their income earning opportunities.

However notable improvement was seen in the general standard of living of the fisherfolk brought about by increased fishing efficiency and rise in fish price. Improvements were seen in the level of education, health, sanitation and communication. The increase in the volume of fish export, the development of fish processing industry and aquaculture presented employment opportunities for women from non-fishing communities also.

Role of fisherwomen in seaweed collection

A study conducted at Ramanathapuram District of Tamil Nadu revealed that the fisherwomen near the shore area are almost involved in seaweed collection. They collect the seaweeds either from the shore or islands. They join together in a group of 5 - 10 members and go for collection by hiring

boats. Mostly they start between 4 and 6am. They carry gunny bags and also glass for their eyes because they have to dive and collect the seaweeds. In a week six days they involve in this activity. Each day they collect 20-30 kg according to their capacity. They tie the gunny bags around their waist and hand plucked seaweeds are collected in the bags. The seaweeds collected by them are *Gracillaria*, *Sargassum*, *Turbinaria* and *Ulva*. Each of them keep their share separately in the boat and when they reach the shore they sell the product to the local agencies either in fresh or dried condition. No one is involved in the post harvest operations due to lack of facilities.

Role of women in aquaculture

Fish production from the sea has attained a sustainable level, and hence the magnificent way to boost the production level is through aquaculture. Coastal aquaculture involves the culturing of marine animals in the open sea as well as brackish water areas.

The CMFRI has developed seafarming technologies which can be gainfully practised in the farmers fields. A broad spectrum of scope lies in this aquaculture system which can offer immense potential for women to be employed. In most part of the Kerala coast there exists vast potential for aquaculture. The water bodies are very much within the vicinity of the farmers.

Fishing provides direct employment to about 1.8 million fishermen, 0.9 million being engaged in fishing, fish seed collection etc. and rest in net making, fish drying, marketing etc. The annual growth rate of unemployment among fishermen is 2.40%.

To tackle the unemployment problem alternate employment avenues should be provided to the fishermen. Aquaculture is one of the avocations which can contribute much to reduce the unemployment problem. The technologies such as prawn, mussel, oyster, pearl and seaweed culture can be taken up by the fishermen families in a profitable way. Culture operations for these technologies are mostly shore based which can be fully managed by women.

The magnitude of participation in the various activities undertaken by women varies from country to country. The distribution of economic benefits

and opportunities in the fishery industry as between men and women also varies from one country to another, but in general women are at a disadvantage in comparison to men.

Womens' role in aquaculture is a very important area, towards which attention has to be diverted. They can very well be engaged in collection of seed, stocking, feed preparation and management, handling, transporting and marketing of the end product. In connection with aquaculture an area with potential for further developments are the mussel/oyster culture, pearl culture and seaweed culture. Development of these culture activities will not only improve the economic status of fish workers but also have a nutritional impact and lead to better utilisation of land and manpower. Women can earn their living through their involvement and can be self employed.

The role of women in aquaculture is long been in practise. In Asian countries, the production, maintenance and management of feed are usually done by women while men are actively engaged in activities like pond preparation and repairing of hedges. Women along the Kerala and Tamil Nadu coast are very much involved in prawn seed collection and women also participate partially in stocking, feeding, management and harvesting of the prawn. Women's role is much visible in the post harvest operations. In the case of oyster and mussel culture women are involved in spat collection, seeding and binding of ropes. They are gainfully employed in the post harvest operations also. Their participation in aquaculture is very much limited. However there remains considerable scope for further expansion and improvement of womens role in aquaculture by increasing the number of women involved in this industry because of the rapid physical expansion of aquaculture activities.

Conclusion

Women add a lot to fisheries sector amidst their various roles played by them. Fisherwomen are benefited not merely by deep rooted social and cultural attitude, illiteracy and lack of opportunities for study and jobs but also by the vagaries of the fishing profession. Modernisation has diffused into the fisherwomen community which has touched their role in fisheries, but still they play an important role in fisheries in postharvest operation. The magnitude of the problem can be minimised by empowering them through planned interventions by strategic and practical means which include reser-

vation policies, formal, non formal and extension education. The emphasis should be on helping women to participate in production activities without any hindrance to their community management role.

Future research priorities

1. Fisherwomen should be organized for enterprise development and trained in fisheries and related technologies.
2. Consenting women about their situations and to enhance their decision making role.
3. Improving the nutritional status of the fishing community through education and intervention .
4. Development of infra structure in the coastal villages on a cluster basis to professionalise fishery related activities without any detrimental effect to women's, role in the society.
5. Involving women in aquaculture activites to provide gainful employment opportunities.