Women Workers in the Post-harvest Marine Fisheries Sector of Kerala : Socio-economic Profile

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Women constitute nearly half (48.1%) the human resource of India. There is a great contradiction in the country between the idealized concept of women and their real life situation. The problems of an Indian woman have specific colouring depending on the socio-economic millieu, in which she has been nurtured and moulded. In rural India, agriculture and allied sectors employ about 90 per cent of the total female labour (Dube and Kohli, 2001). In the fisheries sector, women have an active role and extensive involvement especially in the post-harvest operations, where they constitute almost half of the work force. In marine capture fisheries they are predominant in the post harvest handling of the catch, including processing and marketing. They also play the major role of shouldering almost all the household responsibliities thereby indirectly encouraging active fishing by men. The increasing trend of multi-day fishing trips and the consequential long duration absence from home a accentuated their role as household managers (Ashaletha et al, 2002). Further, women are involved in the traditional practices of coastal aquaculture, by being actively engaged in seed collection, segregation, stocking, feeding, harvesting and marketing.

In Kerala, as in any other sector, women have found their way into many promising ventures in fisheries sector. However, their contributions have not been given the recognition they deserve. Women are not provided with sufficient information/credit support. So much so, their developmental efforts remain somewhat fruitless. In this context, the present study was undertaken in Kerala for making a proper assessment of the status of women involved in fish processing activities like peeling, curing, drying, sotring, value addition and marketing with the following specific objectives:1) To compare the income levels of women involved in different ancillary activities in marine fisheries: 2) To analyse the socio-economic variables affecting the respondent's involvement and performance: and 3) To study the preference towards different alternative avenues.

Methodology : Kerala State was selected for the study because of the existence of a large number of marine products processing centres. Representative centres like Neendakara (Kollam district), Aroor (Alappuzha district) and Munambam (Ernakulam district) of Kerala State with 240 fisherwomen respondents constituted the sample for the study. Forty women each, engaged in peeling, curing, sorting, drying, marketing and value addition of marine products were covered under the study.

A semi-structured interview schedule was used to collect the data. The data were analysed using appropriate statistical tools for interpretation and to facilitate effective and concurrent discussions.

Results and Discussion : There are 226 fish landing centres spread over 590 km of coastline of Kerala. In the State, the role of women in fish proccessing, marketing and related activities is very significant. Women constitute about 50 per cent of the total work force in the ancillary sectors of fisheries. Among these, more than 90 per cent is engaged in peeling.

So far as fish curing sector is concerned, women constitute 66 per cent of work force in the sector. As may be seen from Table 1, maximum employment for women is however provided by the peeling sector, followed by small scale fish trade.

Income levels of women involved in different processing activities: The fishing community is mostly dependent on the sea fishery resources for livelihood and the roles that fisherwomen play in this respect are of great importance for the maintenance of the family(Srinath, K., 1987). Table 2 shows the income level of women in different processing activities and the average no. of hours spent by them in different post harvest fishery activities.

As may be seen, although value addition provides the highest earnings per hour, fish marketing offers the best op-

Table-1 Working population in the Fishery and allied sectors-Kerala (1998)

S.No.	Category	Total workers	Women Workers	Percentage (%)
1.	Beach workers	20,843	5,612	26.93
2.	Small scale fish sellers	67,527	20,220	29.94
3.	Fish curers	21,103	14,028	66.47
4.	Peeling workers	43,620	39,397	90.31
5.	Processing plant workers	11,051	6,504	58.85
	Total	1,64,144	85,671	52.19

Source: Velayuthan, 1999.

portunities to earn higher annual income. Prawn peeling is a seasonal activity depending on prawn fishery season, the peak season being June-September. Prawn peeling is mostly carried out either in peeling sheds, houses rented/ owned by agents or in homesteads of workers. There are about 50 peeling sheds in Aroor Panchayat. For this study, AGN Enterprises (Chandiroor) and Juds Industry (Eramalloor) of Aroor Panchayat were selected as the sample units. Usually, in a peeling shed, women are employed depending on the quantity of prawns they peel in a day. On an average, a woman gets Rs. 50 to 60 per day during the peak season. From Table 2 it can be seen that the average annual income of a prawn peeler is Rs.9720/-, which varies from Rs.500/- for occasional part time worker to Rs. 20,000/- for a full time worker.

As soon as the catch is landed, mostly women are engaged for the post-harvest operations including curing and drying. It may be seen that average number of hours spent by a woman labourer in a year in curing work is 1944 and 729 for drying activities. In fish drying women labourers working on contract basis earn Rs. 100/- for each load. They require about 3 days of time for drying each load. The time spent on fish drying ranged from 8 to 12 hours a day. In Neendakara region, housewives usually bought, for housebased drying, fish worth about Rs. 5000/week and sold the same for Rs.6000-7000/- after drying.

Sorting is done for separating different varieties of fishes into seperate lots. There are three grades of sorting based on the uniformity in size and quality identified in first, second and third grades. The procured fishes are sorted out and trash fishes out of them are, taken to fishmeal plants. The exportable varieties are graded, cleaned, packed in ice and sent to processing centres. It was found that average no. of hours spent on this work by a woman in a year was 1960 in the case of sorting with average income per hour being Rs. 4.20/-. It was observed that some edible prawns and small fishes discarded from the lot were sold by the women sorters. This earning either becomes an additional source of income or is used for household consumption purpose by them.(Table 2).

Women fish vendors form the most important link between the producers and the final consumers. They purchase fish either from the fishermen at landing centres through auction or from traders through bargaining. The distribution of fishes at the retail market is mostly undertaken by fish vendors. Female vendors carry baskets of fish as head loads, where as male vendors use cycles to carry fish for marketing. There are special Vanitha buses exclusively for female fish vendors that operate from major fish landing centres. Vanitha buses are run by MATSYAFED. In the case of Thiruvananthapuram-Kollam route, women start from landing centres by 8 am and, after going through marketing work get back to their homes by 8 p.m. Similar practice is being followed at all the major landing centres in Kerala. These fisherwomen borrow Rs 500 to Rs. 2000/- daily from the middlemen to buy fish. After selling fish they return the money to the lenders with interest. They buy ice worth Rs.40 to Rs.75 /-, No wastage of fish is recorded as the fisherwomen take the balance of fish remaining either for household comsumption or for drying for selling. The average income per day including their labour comes about Rs.200/- to 300/- per day and this works out to an average annual income of Rs. 59,760/- (Table 2).

In the present day trend the society, people prefer to buy ready-to-cook and serve convenience products from super markets than buying raw fish. Value addition is the process of adding value to products to increase the marketing margin. New types of value added and hygienically prepared nutrient rich products in eye-catching packs fetch better price. A socio-economic survey was conducted among a group of women members engaged in value addition of fishery products in Mununbam area of some Ernakulam district. The processed products included pickles, cutlets and *pappadams*. While *pappadam* making is said to be less profitable, pickle-making was found to be comparatively more profitable. Totally, excluding the amount spent on making pickles, the profit was Rs. 1000/- per day, which was distributed among 10 members of the group. They spend 5 hours/day for this work. Based on this data it was found that average income per hour was Rs.20/-.

The availability of improved cold storage, perservation and quick transpo-

Table 3: Age wise distribution of women in different activities(%)

Age group	*Peeling*	*Curing*	*Drying*	*Sorting*	*Value addition*	*Fish vendors*
>20	3	-	-	-	-	-
20-40	57	75	40	25	80	30
40-60	30	25	55	70	10	70
>60	-	-	5	5	-	-

Table-2 Average Working hours of women in different sectors

S.No.	*Activity*	*Average annual working hours*	*Average income per hour (Rs.)*	*Average annual income(Rs.)*
1	Peeling	1620	6.00	9720
2	Curing	1944	12.00	23,328
3	Drying	729	4.40	3207.6
4	Sorting	1960	4.20	8232
5	Fish Vendors	3600	16.60	59,760
6	Value addition	900	20.00	18,000

tation facilities for fish has improved the distribution and marketing system. Earlier, marine fish consumption was mostly confined to the coastal and adjoining regions. Now it is observed that about 50% of the fish is consumed fresh in and around producing centres, 43% in demand centres located up to a distance of 200 km from the coast and only 7% goes to the centres located beyond 200 km under the internal marketing system (Sathiadhas *et.al.*1995)

Socio-economic profile of fishermen

Age : Age, for the purpose of this study, is defined as the number of chronological years completed by the respondents. Age wise distribution of women in different post-harvest activities is given in Table 3.

It may be seen from Table-3 that majority of the women involved in activities like peeling, curing and value addition work belong to 20-40 years age group and those in activities like sorting, drying, marketing (fish vendors), majority were between 40-60 age group. In the case of drying and sorting, 5% of fisherwomen were above 60 years in age. Activities like drying and sorting entail less physical strain comparatively and this might be the reason for finding mainly old aged women involved in it. Maximum no (80%) of women are in 20-40 years age group are in value addition work, this being skill oriented and only youngsters and middle aged women opt for this work. Individuals in the middle age group have physical strength and have greater family responsibilities than young and older ones. Young and unmarried girls are usually not allowed to go for vending purpose, and the few in this activity take up the job due to poverty and unemployment. Thus, according to the study, 70 per cent of fish vendors belonged to 40-60 years age and only 30 per cent belonged to 20-40 years age group.

Earlier, due to social barriers, parents were reluctant to send young girls away from family for peeling. They were allowed to work only at places near to their houses. However, of late, there has been a drastic change in this attitude. Because of the demonstration effect of overall improvement of the quality of life of rural population, fisher households have become eager to improve their life style, for which they require higher household income. Thus they are forced to send young girls, specialized in peeling work, even outside the State. More than 10,000 girls from Kerala are reportedly working in Orissa, Gujarat, Maharashtra and Andhra Pradesh. Because of the increase in family expenditure due to the improvement of living standards and overall price increase, women are forced to work to have sustainable living. This has resulted in the reduction of average family size and improvement in the health standards of women.

Educational Status : This refers to the years of formal learning possessed by the respondents. Table 4 gives the education-wise distribution of women in various activities.

More than 60 % of women in all the categories had atleast primary level of education and in the case of women engaged in value education work, majority had middle level education (Table 4). This is in conformity with the high literacy rate of Kerala State. As a result of better education level of the fisherwomen, they are capable of competing with men and are in a position to take proper decision in household management. Majority of fisherwomen thus manage to perform the roles of both homemakers as well as breadwinners. Table 4 clearly shows that maximum percentage of women with high educational status belong to value addition category. Women engaged in value addition work require more of contact with the development agency concerned and have to undergo training, besides having cognisible status in the profession. This might be the reason why more educated women are found in value addition work. Those who are educated at least to the primary level, are able to read and write, which gives them accessibility to information about new avenues or technologies. Still, they need guidance for selecting the best line of work supported by proper training, which make them aware of the change that is taking place around them. In a nutshell, not content with literacy, they should be encouraged to be properly trained to take advantage of their educational background.

Table -4 Education wise distribution of women in various activities (%)

Education level	*Peeling*	*Curing*	*Drying*	*Sorting*	*Value addition*	*Fish Vendors*
Illiterate	10	7	5	10	-	25
Primary	85	88	70	90	20	75
Middle	5	20	-	70	75	
Secondary	-	-	5	-	10	-
Collegiate	-	-	-	-	-	

Table-5 Level of credit orientation of women engaged in various activities (%)

Category	*Peeling*	*Curing*	*Drying*	*Sorting*	*Value addition*	*Fish Vendors*
Low (less than X std)	55	60	55	55	10	25
Medium (X)	45	40	45	40	30	55
High (Over X std)	-	-	-	5	60	20

Credit orientation : It is operationalised according to the degree to which the respondent is oriented to avail of credit. The particulars are given in Table 5. From this table it could be observed that more than 50 percent of respondents in peeling had low level of credit orientation. Among fish vendors, 55 percent had medium level of credit orientation, where as 60 percent had high level of credit orientation among women engaged in value addition work. With almost all activities of post-harvest sector of fisheries becoming capital-intensive, women have been at a disadvantage, since their access to resources particularly capital, is poor affecting their capacity to invest. They have little or no access to institutional credit, chiefly due to their own ignorance or reluctance to approach credit institutions. In case of women involved in value addition work, a better educational status and comparatively higher earnings have enabled them to a better level of credit orientation. Suitable credit and saving schemes are highly essential for improving the socio-economic condition of women workers. In this context the case of "Vanitha Malsya Thozhilali Bank" of Neendakara gains significance.

A bank for women namely "Vanitha Malsya Thozhilali Bank" was started on 19-01-1993 in Neendakara. Initially there were 40 members. The membership has increased over years to 665. At the time of registration each member has to deposit Rs.100/-. Earlier ths bamk used to give a loan upto an amount of Rs.5000/- per member. Since the trend of repayment was poor, now loan limit is reduced to Rs.25000/-. Now the bank has an asset of Rupees nine lakhs and the bank helps fisherwomen working in all sectors of fisheries. The repayment period is 4 or 5 months. When the loan amount is fully repaid, a fresh loan is given. The bank has another scheme namely "home deposit scheme" in which one savings box is given to a member fisherwomen for putting her small savings. When the box is given back to the banker, the banker deposits the money in the box to their account. The Bank organizes one-day seminar/training for fisherwomen for their benefit every year.

Job Satisfaction : Job satisfaction is the degree to which the fisherwomen feel satisfied in their work. The level of job satisfaction in respect of various activities is furnished in Table 6.

It may be seen from Table 6 that majority of women involved in activities like peeling (65%), curing (75%), drying (60%), and fish vending (50%) had r dium level of satisfaction, whereas 45 cent among sorters and 60 per cen women engaged in value additioin, ha higher level of satisfaction. Women volved in value addition work had m average income per hour compared other sectors (Table 2) and face less drudgery. This may be the reason for high level of satisfaction among them

Preference of Fisherwomen : T professional preferences fisherwom are given in Table 7.

Data prresented in Table 7 indic the differential preference of alternati by the fisherwomen working in proce ing sectors, which was analysed us Paired Comparisom Test (Edwards, 19 Better salary (scale value=1.7) is prefe by the women as the best alternative lowed by Present job + more finan assistance (scale value=1.4), Present + Training for improvements (sc value=1.1) and Present job + Impro working conditions (0.3). New aven (scale value=0.0) occupied the lo position in the order of preference.

Even though women had compla regarding low pay and low finan assistancce, they were satisfied wit flexibility they enjoy in their work hence were found relunctant to choo new job. This may be the reason the preference for new avenues att the lst rank. Detailed discussion vealed that they would prefer doi same job but need better salary, trai for improvement and better working co ditions.

Table-6: Level of job satisfaction of women engaged in various activities (%)

Category	*Peeling*	*Curing*	*Drying*	*Sorting*	*Value Addition*	*Fish Vendors*
Low (less than X std)	30	25	35	15	-	35
Medium (X)	65	75	65	40	40	50
High (Over X std)	5	-	-	45	60	15

Table-7 Preference of alternatives by women working in processing industries

S.No.	*Alternatives*	*Scale Value*	*Rank*
1.	Present job + Better Salary	1.7	I
2.	Present job + more financial assistance	1.4	II
3.	Present job + Training for improvement	1.1	III
4.	Present job + Improved working conditions	0.3	IV
5.	New Avenues	0.0	V

Policy Implications

The women workers in marine fish ery sector are to be encouraged with a equate financial and technical support motivate them to earn more income a ensure household security. Apart fro this, fisherwomen can also be given tra ing in processing activities like salting drying, curing etc. to improve their sha in marketing of fishes. Although mo ernization and improved automation ha made lot ot structural changes in the pro cessing, storage and transportin

sectors,the vast majority of women involved in fish trade are facing drudgery since they mostly resort to head load vending as their primary mode of operations. Further they are mostly in the clutches of money lenders and victims of a vicious cycle of indebtdness in spite of the reasonable earning from their avocations. Hence the women oriented credit schemes adopted by the "Vanitha Malsya Thozhilali Bank" in Neendakara can serve as model to other centres also.

The participation of women in other fishery related activities like pre-processing should also be encouraged. This will help to increase their family income and improve their standard of living. In spite of high literacy rate and many development efforts made by various agencies, there is lot of gap in the availability of gender specific data on fisherwomen of Kerala pertaining to their socio-economic profile, wage disparities, occupational hazards and other inequalities, to evolve appropriate location specific policy options. Hence empowerment of fisherwomen should be given top priority in all fisheries development programmes, research plans as well as policy decisions.

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