

## **Socio-economic Features of Womenfolk of Indian Sunderbans Involved in Fish Drying**

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### **ABSTRACT**

Indian Sunderbans population in many ways face additional burdens because of poor communications resulting from the innumerable creeks, canals and tidal rivers, which separate the islands from each other and from the mainland. Gender discrimination is common throughout the region. Women have to work harder to secure food and livelihood. They have less control over income and assets and are being subjected to violence and intimidation; subordinate social position; poorly represented in policy and decision making. For women engaged in fry collection and fish drying/processing, the problems are compounded by extreme poverty, poor housing, health and sanitation, limited access to safe drinking water, low literacy rates, limited access to support services, resource opportunities and social exclusion. Women at Sunderban often involved in fish drying for four months as they have no other viable alternative livelihood. A study was conducted in Frezarganj areas of Sunderban in Kalistan and Baliara char two important dry fish business centre where 200 fish dry workers were interviewed personally. The study revealed that the dry-fish women workers belong to backward community. More than 50 per cent of fisher women in Sunderban belong to families living in abject poverty. The money they earn is essential for the subsistence of their families. About 87 per cent of the dry fish workers are illiterate. The sorting and drying of fish work performed by the women workers. They are engaged on the basis of daily wages. They get ₹ 150 per day. They work from morning to evening, about 8 hours a day with a break of one hour for midday meal. The women dry fish workers involved in fish drying/processing for their livelihood during the winter season from middle of October to middle of February. During these period the monthly average income of a dry fish worker become ₹ 3000/- per month. Most of the women dry fish workers belong to low income group (66 %). Significant number of women dry fish workers (37 %) reported that they are engaged in as because they have no other viable alternative. Thus it is necessary to empower women fishers in the trade to uplift their socio-economic status.

**Key words:** Dry fish, livelihood, Sunderban

### **INTRODUCTION**

The Coastal area of West Bengal is dotted with numerous species of Mangroves. These mangroves and the associated ecosystem which are rich in natural and aquatic resources has been a mainstay of settlements, subsistence, prosperity and trade for millennia. Indian Sunderbans face additional burdens because of lack of access due to innumerable creeks, canals and tidal rivers, which separate the islands from each other and from the mainland. In addition to these, the people of this area dependent upon the natural resources for sustaining their livelihood and the resources are being either fully exploited or overexploited. Fishing is a major source of livelihood for communities living in the fringe area of the Reserve Forests. Around 2,069 sq km inside the Reserve Forest is considered ideal for riverine fishing using traditional methods (Mukherjee, 2007). Despite rich resources prevailing in this area, the socio-economic

condition of the people is very poor especially the rural women are living in drudgery. In fisheries, women have traditionally been occupied in pre- and post-harvest processing of the products and marketing the catch. DISHA (2006) reported that an estimated more than 50,000 people are involved in fish seed collections in the districts of North & South 24-Parganas among them around 75 per cent are women. However, there is hardly any comprehensive study on their socio-economic status available. It is well known that women play important role in the sector.

In Indian Sunderbans areas gender discrimination is common. Women's life in the area is shaped by the patriarchal, patrilineal society. Women commonly experience a multitude of disadvantages including: physical hard work to secure food and livelihood; less control over income and assets; subjected to violence and intimidation; subordinate social position; poorly

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represented in policy and decision making (Roy & Bhaumik, 2013). For women engaged in fry collection and fish drying/processing, the problems are compounded by extreme poverty, poor housing, health and sanitation, limited access to safe drinking water, low literacy rates, limited access to support services, resource opportunities and social exclusion. Women at Sunderbans often involved in fish drying for four months as they have no other viable alternative livelihood during those months. Keeping this background in view a study was conducted in Frezarganj areas of Sunderbans to throw some light on the socio-economic features of the womenfolk of Sunderbans who are involved in fish drying as a supplementary livelihood option.

**METHODOLOGY**

The locale of study is Frezarganj area of Sunderbans where Kalistan Char (located at the mouth of Saptamukhi River) and Baliara Char (located at the mouth of Patigunia Khal), close to the coast of Bay of Bengal, two important dry fish business centres are located. More than 5000 women fishers are engaged in dry fish trade at Kalisthan char and Baliara every year. Among them, 200 fish dry workers were interviewed personally. The selected women were interviewed with a semi-structured schedule developed for this purpose. To ascertain the gender-disaggregated data and activities of women round the year some participatory tools were also employed. The data related to socio-personal and socioeconomic variables of the fisher women were collected and the data thus obtained were statistically analyzed.

**RESULTS AND DISCUSSION**

**Fisheries activities performed by the women fishers**

In Sundarbans, women are active in both artisanal and commercial fisheries. They often perform most of the work of harvesting fin-fish and shellfish, as well as in processing the catch. Women engage in a wide range of activities in the fisheries and in others related activities fin fish and sell-fish seed collection, pre- and post-harvest activities, net repairing and preparation, Drying of fish as daily labour, Household activities, Activities of various organizations like SHGs and Food, fodder, timber, fuel wood collection. Seasonal Calendar of the women dry fish workers in Sunderbans (particularly for income generation):

Rural livelihoods, especially in a place like Sunderbans, are integrally connected with seasonality. Each season has its own problems and opportunity, and the fisher women of Sunderbans have different strategies for their livelihoods. The fisher women of Sunderbans

generally collect fish seed for their livelihood almost round the year. But during winter season the availability of seed is low; and they have to depend on other livelihood option (fish drying during winter). Fisherwomen generally involves in fish processing/drying during mid-October to end of January or mid of February. The women also catch fishes from small water channels during rainy season as the availability is high. They catch the fish with small net for consumption purpose as well as for sale. During June to October some are also involved in various horticultural operations in their own garden or as a labourer. The women in Sunderbans also collect timber for fuel from forest during winter season (Fig 1).

**Fig 1. Seasonal Calendar of Fisherwomen in Sunderban:**

Activities	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Seed Collection		\$\$	\$\$	\$ \$	\$ \$	\$ \$	\$ \$	\$ \$	\$ \$	\$ \$		
Fish Drying	***									***	***	***
Fish catching from small water channels							@	@	@			
Vegetable Cultivation							+++	+++	+++	+++		
Collection of Timber	= =	= =										== =

Bhaumik *et. al.*, 1996 studied the extent of participation of women in fishery activities with two stages random-sampling in Sunderban areas. The pattern of decision making and the degree of consultation between husband and wife was studied critically. They reported that in Sunderbans, men and women in the fishing community take up distinctly different sets of activities. All female members are engaged in activities, consequent to fish landing either on a part time or full-time basis. Concurrent to the earlier study the present investigation also found that the women play exclusive role in post harvest operations, consisting of a series of activities. During October to February the fisherwomen of Sunderbans involved in fish drying and processing activities to give financial support to their families. A study by Roy & Bhaumik, 2013 has reported that 35 per cent of the women take own decision to work as a labourer in dry fish camp and 32 per cent of the women take decision by consulting with their husband. Gender-disaggregated data were collected during the study period regarding fish drying (Fig 2). Washing and cleaning of the fishes are mainly done by the men. The women have very little participation in those activities whereas in fish grading and fish drying the women has higher participation. The watch and ward in fish drying process is also done by the women. But the packaging of the dry

fish is done by both male and female. The vending of dry fishes is also done by the women in Sunderbans. Nayak (2000) in his study revealed that at the time of bulk landings, women salt and/or dry the fish, sometimes even extract fish oil, and thereby preserving the catch for later use. This helps them gain better earnings and it also makes fish accessible to distant markets in the interiors of the country (Nayak, 2000).

**Fig 2. Gender participation matrix:**

Activities under fish drying process	Role Distribution	
	Men	Women
Washing	***	*
Cleaning (scaling and gutting)	***	*
Transport from boat	***	o
Fish grading	o	***
Drying	o	***
Watch and ward	o	***
Purchase of packing materials	*	***
Packaging	***	*
Marketing of Dry fish(vending)	**	**
	*	***

o – Nil \* - Low/little participation \*\* - Moderate participation \*\*\* - High participation

**Socio-economic conditions of the women dry fish workers of Sunderban**

The Sunderbans and this “fringe zone” in particular represent one of the poorest region of the country. Though it has abundant natural resources but those are unpredictable (Mukherjee *et. al.*, 2010). The analysis of age structure of fisherwomen of Sunderban revealed that 22-54 years age groups are mainly engaged in fish drying related activities (65 %). Almost similar observation was found by Molla *et. al.*, (2009) from Bangladesh part of Sundarban. They reported that highest percentage (40 %) of mud crab collectors were belonged to the year class of 31- 40. In contrast, in fish seed collection 10-20 years age constitute more than 30 per cent of the total sample (DISHA, 2006). The second major (24 %) age group was 54-65 years. Below 21 years age group may be regarded as occasional working age group of fish drying activities.

Education is the main pillar of socio-economic development. Based on the field observation and analysis of the collected data the educational status of the women dry fish workers of Sunderban have been grouped into four categories *viz.* illiterate, primary, secondary and graduate. It was found that 87 per cent of the sampled women are illiterate and 13 per cent had primary level of education. Molla *et. al.*, (2009) found that in the investigated areas, 45 per cent of the crab collectors were up to SSC pass and only 10 per cent of them cannot sign. The study further revealed that, the dry-fish women workers belong to backward community with around 44 per cent belongs to schedule caste and 27 per cent are scheduled tribes. More than 50 per cent of fisher women is

Sunderban belong to families living in abject poverty. It is clear from the study that majority of the respondents *i.e.* 82 per cent were engaged in fishery related activities and it was their main occupation. The perusal of the Table 1, reveals that majority of respondents (66 %) were in low income group (<₹. 32,430/yr). Only 11 percent of the respondents were in high-income group (more than ₹ 50, 590/yr). The same percentage of population lived in pucca houses (Table 1). The crab collectors of Bangladesh part of Sundarban had also similar socio-economic conditions as far as housing pattern is concerned. During the fish drying season, the women generally earn ₹ 150 per day. They work from morning to evening, about 8 hours a day with a break of one hour for lunch. During these period the monthly average income of a dry fish worker become ₹ 3000/- per month. It is perceived by most of the dry fish workers (63 %) that working in dry fish camp help them to enhance their socio-economic condition. But, on the other hand 37 per cent of the women dry fish workers reported that they are engaged because of lack of alternative livelihood activities.

**Table 1: Distribution of the respondents on the basis of their Socio-economic & Personal Traits**

		n=200
Socio-economic Characteristics	Categories	Frequency (Percentage)
Age	Young (<21)	22(11%)
	Middle-Aged (22-54)	130(65%)
	Old (> 54)	48(24%)
Education	Illiterate	174(87%)
	Primary education	26(13%)
	Secondary Education	0
	Graduate	0
Marital Status	Married	172(86%)
	Unmarried	28(14%)
Family Type	Nuclear	68(34%)
	Joint	132(66%)
Family Size	Small (up to 5 members)	62(31%)
	Large (>5 members)	138(69%)
Housing pattern	Kaccha House	178(89%)
	Pucca House	22(11%)
Family Income (in Rupees per Annum)	Low Income(<Rs.35,430)	132(66%)
	Medium Income(Rs.35,430-Rs.50,590)	46(23%)
	High Income(>Rs.50,590)	22(11%)
Social Participation	Low (<1.1)	136(68%)
	Medium (1.1-2.2)	52(26%)
	High (>2.2)	12(6%)

### The contribution of fish drying activity to the total family income

Fisher women of Sunderbans generally involved in dry fishing activities as labourer during middle of October to middle of February (Four months). During these months they significantly contribute to the family income *i.e.* 23 per cent of the total family income in a year (Table 2).

### Constraints as perceived by the women dry fish workers of Sunderbans:

The fisher women undertake fish processing like drying of fish, prawns and salt curing using traditional know-how. Modern methods like use of chemicals to delay the process of decay in dry fish, mechanical drier, hygienic handling and preparation of diversified fish products are unknown to the women working in the fish processing field in Sunderbans. This technology gap is to be filled up by extending the technologies to the target group through informal education and training package.

Women have been the major player in fresh and dry fish marketing since ages. They sell fish in local markets or carrying fish on head load to sell door to door. On the other hand men use mechanized transport systems like bicycles, three wheelers and lorries. Therefore, women find it extremely difficult to compete with men in fish marketing. Also, they are deprived of capital for buying fish and depend on borrowed money from money lenders which bears very high interest cost.

The fisher women of Sunderbans in most of the cases are not able to join various extension programmes and trainings due to low literacy and poor exposure, lack of timely information about training. Moreover, in most of the cases the training /extension programmes are not gender sensitive.

Fisher women face hardships in getting credit from the Banks and cooperatives etc as they do not have any assets in their name (land). Lack of awareness about state and central government assistance and schemes also add to their woes.

**Table 2: Contribution of fish drying activity to the total family income.**

Activity	Average Income per year (₹)	Percentage Contribution
Fish seed collection and other Fishery activities	20000	45 %
Fish vending	2000	5%
Fish Drying	10000	23%
Crop/Vegetable farming	3500	8%
Animal rearing (Poultry/Duckry/ Dairy animals etc)	1500	3%
Labour wage	5500	13 %
Others	1500	3%

### CONCLUSION

Since the beginning of the International Decade for Women in 1975, emphasis have been laid to improve the living conditions of women and to correct the imbalances between men and women all over the world. However, still their condition has not been improved much. Launching of mass literacy campaign particularly for fisher women in Sunderbans area is very much needed. Vocational training to the fisherwomen of Sunderbans can be provided for knowledge and skill development in the areas such as in dairy, bee keeping, mushroom cultivation, poultry, rabbitry, livestock management, bio-diversity maintenance, waste land development, pond management (common properties management), nursery management, integrating farming systems, rural crafts, entrepreneurial development to develop alternative livelihood options for them. Training for entrepreneurship development can be given to the fisher women, as women are already engaged in small trading enterprises. Formation of SHGs, Mahila Mandal need to be encouraged to upgrade their knowledge and skill, so that their participation in various alternative livelihood practices can be increased. It will not only remove drudgery but also will empower the rural women socially and economically.

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