

A Study Among Some "Meendharas" of Sunderbans, West Bengal

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INTRODUCTION

In recent years brackish water aquaculture has come much in the limelight because of its very high potentiality in production of prawns, particularly of Tiger Prawn (*P. Monodon*). West Bengal export of fishery products, which almost exclusively is in frozen prawn, has grown to more than Rs. 60 crores in the last decade from a mere Rs. 2.5 crores in 1973 (Bose, 1989 A5).

West Bengal is fortunate to have naturally available seeds of Tiger Prawn in large quantities (Bhowmick, 1993; Chakraborti et al., 1987). Tiger Prawn seeds are available throughout the year in varying quantities in some of the streams in the Ganga Estuary System (Mahapatra et al., 1993). A group of people locally known as the *Meendhara* is connected with the catching of tiger prawn seeds. Present endeavour is to point out the condition of the people who lie at the very base of the trade in prawn and are serving the country for enriching its coffers.

The present work is done on the fisher folk living in the village Kamdebnagar under the Police Station Patharpratima in the district of South 24 Parganas of West Bengal. These fisher folk are special, they are locally known as *Meendharas*. They collect juvenile prawn and prawn seeds from brackish water. It is found that all the *Meendharas* of the village Kamdebnagar belong to a community known as *Bagdi*. Catching of the *meen*, that is the prawn seed, is not a new occupation to the people of Kamdebnagar. Fishing provided the people with livelihood even in the past. At present *meen* collection has become economic mainstay of the villagers, although it only provides for the bare level of subsistence.

The soil in the Sunderban delta area is not always suitable for agriculture. Due to the salinity of soil agriculture is very difficult. Collection and cultivation of prawn is an alternative means for subsistence in the area. Prawn cultivation not only provided them with ready cash but it appeared to be more paying than agriculture. The agricultural land is inundated with brackish water and is used for raising prawn after the harvest of paddy in winter. In the last

two decades prawn rose into importance. In the process Indian Government took an initiative to export prawn in large scale to the foreign market. Large amount of money was invested for the purpose. A large number of people living in the coastal areas shifted their economy from agriculture to prawn seed collection and aquaculture.

Anthropological methodology is followed for this work. Structured questionnaire was framed prior to the visit. Census, information on demography, literacy, occupation, income and other related data are collected by this method. For detailed knowledge interview, narrative and participant-observation methods are followed. Case study is made for in depth understanding of the problems. Information is gathered on the social system, economic condition and the material aspect of the profession of *Meendharas*. Special emphasis is given on the method of prawn collection, different implements used, account of profit and loss, health hazard and other problems related to the occupation.

LOCATION AND AREA

The village under study is within the district of South 24 Parganas, which lies in the extreme southeastern corner of the state of West Bengal. The district is bounded on the north by the district of Kolkata, on the east by the portion of north 24 Parganas, on the south by Bay of Bengal and on the west by the river Haora and Midnapore district. Total area of this district is 1960 sq. kms. The area is very poor in sweet water supply, so the agricultural return is not sufficient. Creeks, rivers and backwaters criss-cross the area. Communication is difficult. Economic growth is retarded in the area (De, 1994: 135). The characteristic feature of the area is that often tidal waves destroy the crop as well as the soil for cultivation. The saline invasion leaves the soil unfit for cultivation for a few seasons. In order to solve this problem often embankments were raised. One such embankment is present between the village Kamdebnagar and Uttar Gopalpur. This is cross bund type.

It is the immigrants from outside who slowly

cleared the forest in the Delta region of the Sunderbans and brought it under cultivation. Bulk of the small farmers, share croppers and landless labourers migrated from the drought and famine prone areas of the eastern plateau region. They came from Jhargram area, western Medinipur, Bankura, Singhbhum and Santal parganas. Most of the immigrants were tribal people, such as, the Santals, Mundas, Oraons, Kurmis and Koras. There were also some depressed Hindu caste groups. Thus by about a century Sunderbans was populated. The population spread was slow because of wild animal attacks, snake bites, malaria etc.

The village got its name as Kamdeb Nagar after the name of Kamdeb Proddhan, a rich gentry from Midnapur who leased the land for forest product and brought in labourers from Midnapur for this purpose. The first settlers were hindus from the communities of mahishya, bagdi and kayastha. Total Bagdi population in Kamdeb Nagar at present is 223 (113 male and 110 female).

In brief the settlements are mostly lineally arranged on both sides of the village streets. Houses cluster around an open space in the village central part, and are scattered toward the peripheral parts. People live in thatched mud huts. The houses are generally with two rooms. One room is used as store and the other as sleeping quarter. There is only one window in each house. The doors are made of wood. There is a covered veranda, one corner of which is used as kitchen. The village is divided into small hamlets but it is not on the basis of caste groups. All the people live in the villages together and all struggle together against poverty. There is no separate space for different castes, even low castes. Nearest town is Kakdwip situated at a distance of 165 km. Nearest Railway station is Nischintapur, 31.5 km away.

THE MEENDHARAS

The village Kamdeb Nagar is multiethnic in nature. Out of 198 households in the village 47 belong to the Bagdi communities. The Bagdis are the *Meendharas* in this village. Fishing, with all its associated operations, is a specialized occupation. It requires knowledge, experience and skill. Non-fishing castes hardly get any entry into the fullscale occupation (Raychaudhuri, 1980).

Risley (1891) has considered the Bagdis as a tribe transformed into caste. Physically they are

described as below medium in height, with a broad nose and rounded head. Singh (1993) described them as a caste who do not partake beef and pork. The higher castes do not take water from them. They practise monogamy. Ancestor worship is followed. Brahmin priest performs rituals for their Gods and Goddesses. *Manasa puja* that is, the worship of snake goddess, is the main puja. *Durga puja* and *Gajan* are also important. Fishing and cultivation is the traditional occupation of the Bagdis. Majority of them are landless labourers. Child labour is common among them. Making of fishing net is their traditional craft.

Detailed survey has been made of the 47 households in the village Kamdeb Nagar. Some of the data are presented in tabular forms according to their relevance in the present study.

Table 1 shows the population distribution of the Bagdi families living in the Kamdeb Nagar village. This is on the basis of preliminary census data. Maximum number of people are within 11 to 15 years of age group. The *Meendharas* start the job of collecting prawn seeds from a very early age. Children and female members are more proficient in catching *meen*. It is found that the age group involved in *meen* collection has got a long range from 6 to 50 years. Adult male members spend more time in pursuit of land and agricultural labour than prawn seed collection. The children and the female members are constantly in water and are engaged in *meen* collection almost throughout their waking hours. It also appears from the table that there is no female member alive beyond the age of 60 years.

Table 1: Age and sex wise distribution of the population of *Meendhara* in the village Kamdeb Nagar

Age Group (in years)	Male		Female		Total	
	No.	%	No.	%	No.	%
0 - 5	10	4.48	10	4.48	20	8.97
6 - 10	17	7.62	15	6.73	32	14.35
11 - 15	14	6.28	25	11.21	39	17.49
16 - 20	11	4.93	15	6.73	26	11.66
21 - 25	9	4.03	9	4.03	18	8.07
26 - 30	7	3.14	11	4.93	18	8.07
31 - 35	8	3.59	7	3.14	15	6.73
36 - 40	5	2.24	9	4.03	14	6.28
41 - 45	8	3.59	3	1.34	11	4.93
46 - 50	5	2.24	4	1.79	9	4.03
51 - 55	3	1.34	2	0.89	5	2.24
56 - 60	5	2.24	-	-	5	2.24
61 - 70	7	3.14	-	-	7	3.14
71 - 80	1	0.45	-	-	1	0.45
81+	3	1.34	-	-	3	1.34
Total	113	50.67	110	49.33	223	100.0

Table 2: Age and sex wise distribution of literacy among the *Meendharas* of Kamdebnagar

Age group (in years)	Literate						Illiterate						Grand Total	
	Male		Female		Total		Male		Female		Total		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
0-5	-	-	-	-	-	-	10	4.48	10	4.48	20	8.97	20	8.97
6-10	16	7.17	15	6.73	31	13.90	1	0.45	-	-	1	0.45	32	14.35
11-15	14	6.28	25	11.21	39	17.49	-	-	-	-	-	-	39	17.49
16-20	11	4.93	13	5.83	24	10.76	-	-	2	0.89	2	0.89	26	11.66
21-25	6	2.69	6	2.69	12	5.38	3	1.34	3	1.34	6	2.69	18	8.07
26-30	6	2.69	6	2.69	12	5.38	1	0.45	5	2.24	6	2.69	18	8.07
31-35	8	3.59	4	1.79	12	5.38	-	-	3	1.34	3	1.34	15	6.73
36-40	3	1.34	5	2.24	8	3.59	2	0.89	4	1.79	6	2.69	14	6.29
41-45	7	3.14	1	0.45	8	3.59	1	0.45	2	0.89	3	1.34	11	4.93
46-50	4	1.79	4	1.79	8	3.59	1	0.45	-	-	1	0.45	9	4.03
51-55	3	1.34	2	0.89	5	2.24	-	-	-	-	-	-	5	2.24
56-60	5	2.24	-	-	5	2.24	-	-	-	-	-	-	5	2.24
61-70	2	0.89	-	-	2	0.89	5	2.24	-	-	5	2.24	7	3.14
71-80	-	-	-	-	-	-	1	0.45	-	-	1	0.45	1	0.45
81+	-	-	-	-	-	-	3	1.34	-	-	3	1.34	3	1.34
Total	85	38.12	81	36.32	166	74.44	28	12.56	29	13.00	57	25.56	223	100.0

Kamdebnagar has got two schools in the village, one is a primary school and the other is a Junior High School upto Class VIII. An English Medium school began a few years earlier but it discontinued because the villagers were not able to pay the school fees. There is one Anganbadi centre. There are a few voluntary organizations trying to introduce literacy in the village.

Table 2 shows the literacy among the *Meendharas* of Kamdebnagar. It appears that the male and female population has more or less same proportion of literacy. Out of the total 223 people 85 (38.12%) males and 81 (36.32%) females are literate. 28 (12.56%) males and 29 (13.00%) females are illiterate. Literacy is quite high (74.44%) among the Bagdis of the village. Only 25.56% are without literacy. Literacy is more among the younger people than those of older people.

The villagers are engaged in different occupations, such as, agriculture, day labour, fishing, business and service. The *Meendharas* are engaged in both agriculture and fishing. They collect prawn seeds. The male members take to day labour during the lean season of prawn seed collection. In the months of summer, rain and autumn they move from village to village in search for job, mostly as agricultural labourer. The female folk who stay behind go on in pursuit of the *meen* collection.

The *Meendharas* keep cattle, goat, sheep, fowl and duck. There are 58 cattle, 32 goats, 11

sheep, 163 fowls and 59 ducks. These belong to the 47 *Meendhara* families. Poultry provides sufficient emergency food in the form of eggs. Cattle are for both the purposes of agriculture and milk. Milk is not commercially sold, but if available consumed by the family. The cattle are important for agriculture. They usually lend them for hire during agricultural season.

The *Meendharas* own some land, though it is not sufficient for providing full sustenance to the owners. The land in this case is divided into two types, the homestead and the cultivable land. Homestead is higher in elevation than agricultural land. The huts are built on this land. People live on higher ground to protect themselves from the tidal wave. The land for each household is not very clearly demarcated. The houses are usually clustered around an open space. The members of all the households surrounding it may use the space. They cultivate chilli, ladies finger, eggplant, pumpkin etc. in the kitchen garden. Total land holding for 47 families in the village for homestead is 5.75 bighas, on an average 2.45 katha per family. All the families own agricultural land, but these vary in size from family to family. On an average each family owns 17.45 kathas of land (Table 3).

Table 3: Land owned by the *Meendharas* of Kamdebnagar

Homestead land	Agricultural land	Total
5.75 Bigha	41 Bigha	46.75 Bigha

Only one crop is raised in a year. They cultivate during summer months and harvest during autumn. After this in winter some lands are inundated and transferred into prawn raising ground. Immediately after harvest the *Meendharas* become busy with catching prawn seeds. After the crop of prawn is fully grown and taken out, the field is drained of water and is prepared for agriculture.

In Kamdebnagar village among the 47 families of Bagdis there are three sections they refer to as *gotra* or clan. These are *Kashyap*, *Nageswar* and *Shandilya*. There is another group of Bagdi who conform to Baishnabism and call their clan as *Acchuta*. These people consider themselves as a little higher in social status than the 3 former sub-groups. All the sub-groups are exogamous. They regulate marriage alliances. They marry either within the village or in the surrounding villages. They prefer a partner from a different clan. Dowry system is present. It is paid both in cash and in kind. Vermilion, iron, shell bangles are the symbols of marriage for female. The *Acchuta* sub-group also follows exogamy, but always from another Bagdi family belonging to *Baishnab* sect of hinduism.

Clan wise study of Bagdis of Kamdebnagar has shown that there is not much difference in social status among the clans. Literacy is more among the *Shandilya* and *Kashyap* and it is comparatively less among *Nageshwar* and *Acchuta*. Land holding on an average is more among the *Kashyap*. *Kashyap* also has got the highest average of domestic animal. *Nageshwar* has got the highest number of fishing implements. It seemed that the last mentioned clan is more equipped for fishing.

METHOD OF COLLECTION OF TIGER PRAWN SEED

Implements

Some simple implements are used for the collection of juvenile prawns and seeds from the river. These are net, aluminium pan, rope, enamel tray and bivalve shells. Following is the description of the implements.

1. *Net*: There are two types of nets for the collection of prawn seeds.
 - i) *Hand Operated Nets*: Local name is *Tana Jal* meaning the drag net. It is priced at Rs. 250/- per net. The *Meendharas* make them. The net is made of soft nylon thread and is fixed to a bamboo frame.

- ii) *Dip Net*: Local name is *Naukar Jal* meaning the boat's net. It is priced at Rs. 350/- per net. Maker is the *Meendhara*. It is almost triangular in shape. The three sides of the net are bound to three bamboo poles. The apex of the triangle is placed on the gunwale of the boat. These are also attached to the fixed bamboo poles or drums floated for the purpose in the river. A double split bamboo along the base of the triangular shape secures the net.
2. *Aluminium Pan*: Local name is *handi*. It is priced at Rs. 150/- and is purchased from the market. An aluminium pan is used for keeping *meen* alive in saline water.
3. *Rope*: This is made in the village out of jute. This is used for dragging the net.
4. *Dish*: A white enameled iron dish in which the catch is floated for the purpose of segregation of prawn seeds from other fin and shell fish. This may be purchased from the market for a price of Rs. 50/- each dish.
5. *Shell*: These are bivalves collected from the river. The shells are used to pick out the *meen*. The prawn seeds are sorted by floating it on the valve as well.

The fishing implements are important possessions of fisherfolk. On these their livelihood and economy depend. Data is collected on the number of implements present in the village. Table 4 shows the distribution of fishing implements. It is found that every family possesses net, shell, pan and dish. Every family has more than one equipment each. Only four people in the village own boat. Cash, excepting the boat, purchases the implements. Often a number of *Meendharas* take part in the boat making. They equally share the *meen* caught with the help of the boat they have made together.

Table 4: Distribution of implements in the *Meendhara* families of Kamdebnagar

Implement types	No. of implement	Average per family
Net	71	1.51
Shell	88	1.87
Pan	82	1.74
Dish	98	2.08
Boat	4	.08

COLLECTION

The prawn seeds are collected in two ways:

1. By big nets from boat near the mid stream and at the estuaries. Prawn seed collection by boat has got a special technique. The handle of the dip net is tied to boat by means

of a rope. The three sides of the triangular net are tied to bamboo poles or sometimes to a barrel. The prawn seeds float along the stream and are trapped by the net. Those who collect *meen* by boat are people who are better off. Sometimes two or three persons share the capital and collect *meen* by boat.

2. The poorer villagers can not afford to catch *meen* by means of boat. They collect *meen* along the river bank with the help of hand operated nets.

The catch from the nets are kept in the aluminum pans and thereafter transferred to enamel dish or trays. From the catch the seeds of *Prawn monodom* are segregated. Together with the tiger prawn shrimps, other shell and finfish and planktons are caught in the net. The seed collector keeps the tiger prawns and the rest of the catch is thrown on the embankment. Thus many other varieties of fish are destroyed and the biodiversity is lost (Mahapatra et al., 1995).

The fishermen sell the *meen* at the markets of Ramganga or Gangadharpur. There are some middlemen who buy the *meen* from the village itself. The middlemen sell them to the breeders of tiger prawns. After the prawns have grown into full size the breeders take them out, process them and export abroad.

FISHING SEASON

The fisher folk with their acquired knowledge know about the variation in the availability of catch of the fish throughout the year. This varies in relation to the lunar calendar. The velocity of water current varies through ebb and tide. The high tide brings in more fish. The low tide relatively decreases the catch. Quantity of fish increases with the rate of increase of water towards new moon and full moon. The fish follow the wind and water current. During summer the southerly wind bring in more catch. With the northerly wind less amount of catch is found. Summer season is considered as the best time for collection of good amount of prawn seeds. The winter months are the poorest season for the collection of prawn seeds.

In the month of *Chaitra* (March to April), the fish carries spawn and in *Baisakh - Jaistha* (April to June) lay them. During the months of *Asar - Sravan* (June to August), they try to move upstream due to pressure from sea (Raychaudhuri, 1980: 71). During the new moon day of *Bhadra* (August to September) and full moon

day of the month of *Aswin* (September to October) or *Kartick* (October to November) when the tide is high, the fish come up the stream in great quantity. High tides bring in the young tiger prawn which have hatched in the rainy season. Therefore during the months of September and October the catch is highest.

The fishing community of Kamdebnagar vis-à-vis Sunderbans collects prawn seeds only. They do not grow them, nor are engaged in pisciculture. Their technique is related to catching the seed prawn, storing them and selling to the agents. The agents may be the middlemen for the prawn breeders or the breeders themselves. The breeders ultimately raise the prawns and sell them mostly in the foreign market and to some extent in the country itself.

MONEY AND TRADE NET WORK

Although the *Meendharas* continuously collect prawn seeds throughout the year, price of tiger prawn seed varies according to the commercial crop production of adult prawns. The prawn seeds are bought from the collectors and sown in the brackish water aquaculture area which are locally known as *bheris*. These are shallow inundated fields with a depth of about 6' - 8'. In fact these are paddy fields. After harvest the fields are inundated with brackish water and aquaculture is carried on. After about six months the fully grown prawns are taken out. The fields are again cultivated in rainy season with paddy.

A prawn has got a life span of about six months (Ganguly, 1996). The Juvenile Tiger prawn takes its full size within 4 to 6 months. Best season for sowing tiger prawn seeds is winter i.e. middle of December to January. It may continue upto middle of February. Demand for seed prawn is at its peak during winter times, and minimum during September - October.

Price of 'meen' at Kamdebnagar village

Summer season	: Rs. 200/- per thousand
Rainy season	: Rs. 250/- per thousand
Autumn season	: Rs. 16 - 40/- per thousand
Winter season	: Rs. 400/- per thousand

The breeders of prawn and aquaculturist buy the prawn seeds from the *Meendharas* of Kamdebnagar at the above - mentioned rate at different seasons through the middlemen. The price is maximum during winter. Price of seed prawn goes down from summer and it is lowest in autumn months. These are the times when

the prawn is taken out and sold to foreign market or within the country. The male members of the *Meendharas* during the lean seasons of seed catching go in search for daily labourers job. The price that the breeders pay to the middlemen for the prawn seeds is almost twice what the catchers get. These are sold at Rs. 800/- to Rs. 3,000/- per thousand. The adult prawns are sold headless to the foreign market. These are sorted according to their size and weight. According to the Marine Product Export Development authority, the adult prawn known as U5 and U10 are the largest. 5 headless prawns weighing one pound together is considered as U5. When 10 headless prawns together weigh one pound it is called U10. The price for the headless prawns including cost and freight U.S. \$ 23.00 (\$ 1 = Rs. 39.00) i.e. Rs. 897.00 per kg. Maximum demand is from Japan and U.S.A. The minimum value is for the headless 90 to 120 prawns weighing one pound. These are sold at Rs. 125.00 per kg. The cost of one prawn of U5 type is almost equal to one thousand *meen* at lean period of *meen* catching.

It takes about four days for a family to catch one thousand prawn seeds. On the fifth day they sell the seeds. Next day they take rest and following day they again start with the catch.

The average annual income of a family from the collection of prawn seeds is not sufficient to take care of the needs of every member of the family. Economically the living standard of the *Meendharas* is very poor. It is hardly adequate to the subsistence level (Table 5).

Table 5: Average income per family

No. of families	Total Population	No. of seed Collectors	Average annual income from seed collection/ Family
47	223	223	Rs. 15,804.00

OCCUPATIONAL HAZARDS

The occupation has got severe hazards. The *Meendharas* are often victims of attack from crocodiles and sharks. Constant touch with saline water creates health hazard. Several cases of skin problem is noted due to continuous immersion in brackish water. Above all inadequate income does neither compensate for the hazard nor take care of the ill health. In spite of the above problems the poor *meen* collectors are

engaged in this occupation, because this is the only way by which they earn some cash for their subsistence.

The authorities (MPEDA) have made survey regarding the dangers to the *Meendharas*. As an alternative, artificial breeding grounds are prepared. Permanent hatcheries are made. Mother prawns are raised there and artificially spawns and seeds are bred. Such breeding grounds are at present found at Gopalpur. The breeders may raise two yields of adult tiger prawns in this way. This has not yet given any viable result. However, so far no alternative income generating employment is devised for them. So the poor *Meendharas* are still facing the hazards and carrying on with their traditional occupation of catching juvenile tiger prawns in the creeks and estuaries.

CONCLUSION

Anthropolgy is a subject which has got its genesis in the service of man. Anthropologists are with the methodology to bring out the proper perspective of the problem related to man with the help of empirical data.

The purpose of the present undertaking is to look into a profession, which is rather complex in nature. The complication is due to several factors. The tiger prawn has got a worldwide market. Government of India is earning a lot of foreign exchange from the export of prawn to Japan, U.S.A. and other countries. There are several tiers of market, trade and groups of people involved in prawn export. On the lowest rung is found the *Meendharas*. But it is the *Meendharas* on whom the entire aquaculture rests. There are several hindrances for the catching of prawn seeds. They are, attack from tigers on the land and crocodiles in the water. Health hazards in the form of skin disease etc. are present. Moreover although aquaculture has become a very profitable business, the *Meendharas* are extremely poor paid. As the prawn seed catching brings in destruction to other seeds of shellfish and finfish, restriction is imposed on the *Meendharas* to catch prawn seed along the bank of the river. They are allowed to fish in the estuaries by boat. After the *Meendharas* segregate the prawn seed they throw the others along the bank. The fishing in the estuaries will prevent destruction of other fish seeds and thus maintain balance in the biodiversity of the Sunderbans area. But most of the *Meendharas* cannot afford a boat. So they

are still carrying on with the fishing along the bank. Only a few fortunate ones can catch prawn seed by boat. The Bagdis of Sunderbans who came as labourer to clear the forest and settled in the land under Jamindars became the *Meendharas* in course of time. These are the men who are serving other men. There is a need to make in-depth study into their socio-economic condition and alternative means may be provided to them for the service that they render to their fellow human beings. It will be the job of an anthropologist to make a policy oriented investigation among the *Meendharas* and find out an alternative solution which will be sustainable to their societal as well as ecological background.

KEY WORDS Aquaculture. Meendhara. Prawn-seed. Bagdi. World Trade.

ABSTRACT There are a number of communities in India living in underprivileged conditions. Much of the endeavour to alleviate their position is wasted for the lack of proper knowledge into their cultural tradition and socio-economic milieu. Present study is made among the meendharas, the prawn seed collectors, of the village Kamdeb Nagar, Pathar Pratima block of South 24 Parganas, West Bengal. Government of India earns quite a good amount of foreign currency from the trade of frozen prawn. The meendharas are lying at the lowest rung of the system. An anthropological study is made on meendharas

so that problem of these people may be properly understood and their lot could be improved in a scientific way.

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