

THE MOON AND NET

Study of a Transient Community of
Fishermen at Jambudwip

Bikash Raychaudhuri

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To my parents

FOREWORD

In September, 1967 in a seminar on the major research projects to be taken up by the Anthropological Survey of India it was decided that a series of field studies would be taken on the marine fisherfolk from all over coastal India. Dr. Bikash Raychaudhuri was entrusted with the study of the marine fisherfolk in coastal West Bengal. On the basis of careful reconnaissance, he chose the transient community of several fishing units which gathered together during the fishing season at Jambudwip in southern Sundarban area.

Raychaudhuri stayed with the fisherfolk of Jambudwip during the fishing season of 1967-68 and came back to Calcutta with remarkably rich data on the technology, economy, social organization, rituals, knowledge of the ecosystem and world view of the fisherfolk of Jambudwip, who all belonged to various traditional fishing castes.

The report provides a wealth of information on ethno-science—the fishermen's knowledge of the enormous variety of fish, their behaviour and habitat. We also gain a vivid access to their knowledge of the cosmology—the planets and the stars, the weather cycle and the relation between the phases of the moon and the tide. Although the fishermen develop a temperament of "fatalism" and "gambling" the report indicates that every step of the fishing operation is informed by native inductive reasoning. Whenever there is a conflict between the requirement of technology and ritual conventions, the fishermen were found flexible enough to adopt the technologically appropriate course.

But for the fisherfolk fishing is not just a techno-economic venture. Along with his meticulous description of the material culture of fishing technology, Raychaudhuri has been able to convince us about the quality of job satisfaction of the fisherfolk which grows out of exposure to the challenge and beauty of the open sea, the risk and fun of tracking a shoal of fish, setting up and hauling of the net.

The seventeen fishing units at Jambudwip formed by fishermen coming from different parts of West Bengal, Bihar and Orissa constituted a transient island community for about six months. Raychaudhuri has described very effectively how these temporary transient social units composed exclusively of males, constructed a society and culture—a moral community—during their stay in the island for about six months away from their kins in their respective villages.

While analysing the economy of the two kinds of fishing units, the shared and contractual, Raychaudhuri brings into sharp relief how both the categories are exploited by the non-fishing financiers, *dadandars*. The author makes a convincing case that unless some positive measures are taken by the Government to provide financial support to fishermen to build up their units on a co-operative basis, they will be perpetually under the stranglehold of the *dadandars* in spite of their enormous skill, labour and risk taken for a dangerous occupation. The plight of the fisherfolk appear to be even more miserable than that of the marginal and small farmers.

Raychaudhuri's report on the fisherfolk of Jambudwip would remain as an outstanding model for completing our initial ethnographic task of adequate analytical description of all the major forms of primary means of livelihood that have sustained the people of India through the millenia—agriculture, hunting, fishing, animal husbandry and the various crafts. Professor Nirmal Kumar Bose initiated us to the task. I hope the Anthropological Survey of India and the various university departments of Anthropology will collaborate in completing the work.

Surajit Chandra Sinha

June 30, 1972

(Surajit Chandra Sinha)

Director

PREFACE

In the Indian sub-continent various communities are involved in different types of traditional occupations which include hunting and gathering, pastoralism, agriculture, fishing, and crafts of various nature. They are following the same profession through generations for their subsistence.

It is felt that the anthropological understanding of the economy of a group needs a thorough knowledge of the insider's view of the group concerned towards their 'ethno-science' of production on which their subsistence economy depends. In following the same occupation through generations, the subsistence economy of the group is institutionalised and ritualised, and gets integrated into the life and culture of the people to give it an aesthetic touch, either consciously or unconsciously, in order to perpetuate a meaningful cultural definition of 'good life'. Therefore, in understanding the economy of India and the Indian civilization as a whole, a deep probe into these communities' material and cultural process is the prime necessity to successfully implement many of our developmental programmes.

I am thankful to the Anthropological Survey of India, under the auspices of which I was entrusted to study such a specialised technoeconomic group, like Marine Fisherfolk. Dr. Surajit Chandra Sinha, Vice-Chancellor, Visva Bharati, Santiniketan, the then Deputy Director of the Anthropological Survey of India, took active interest in it, so that official formalities might not be of much hindrance towards the completion of this work. I sincerely express my deep sense of gratitude to him but for whose guidance, inspiration and kind cooperation all through, it would not have been possible to present this volume in printed form.

The manuscript of the book was ready by the end of 1969, i.e., long before the formation of Bangladesh. Hence, in this book 'East Pakistan' denotes the present day 'Bangladesh'.

For the sake of convenience of printing roman transliteration of local terms has not been attempted in the body of the text. However, to give an approximate idea of pronunciation of the local terms, the words used in the Bhatiali Songs, names of the common varieties of fishes, and the local terms given in the Glossary have been romanised by Shri Dipankar Das Gupta of the Linguistic Section of the Anthropological Survey of India. I am grateful to him for taking this trouble.

I am thankful to Shri B. N. Bagchi and Shri K. S. Samanta for drawing the figures and charts. Both Shrimati Archana Datta and Shri S. Datta have indebted me by drawing the maps. My thanks are also due to Dr. Biswanath Joardar for preparing the index of the book.

I am also grateful to the officials of the Directorate of Fisheries, Government of West Bengal, particularly to those at Frasergunj, for their kind cooperation while carrying on the field investigation. My thanks are specially due to my fisherfolk friends at Jambudwip for their ungrudging cooperation during the entire period of my stay with them.

I shall remain ever grateful to Professor Fredrik Barth of the University of Bergen, Norway, for his inspiration to get this volume published.

Shri R. N. Ghosh of the Publication Section of the Anthropological Survey of India deserves special mention to get the manuscript press ready. Shri M. Das and Shri J. N. Boral took the trouble for its printing.

It is not possible to name all my friends and colleagues who helped me in various ways in preparing this volume. I am taking this privilege of expressing my sincere thanks to all of them.

Bikash Raychaudhuri

January 9, 1980
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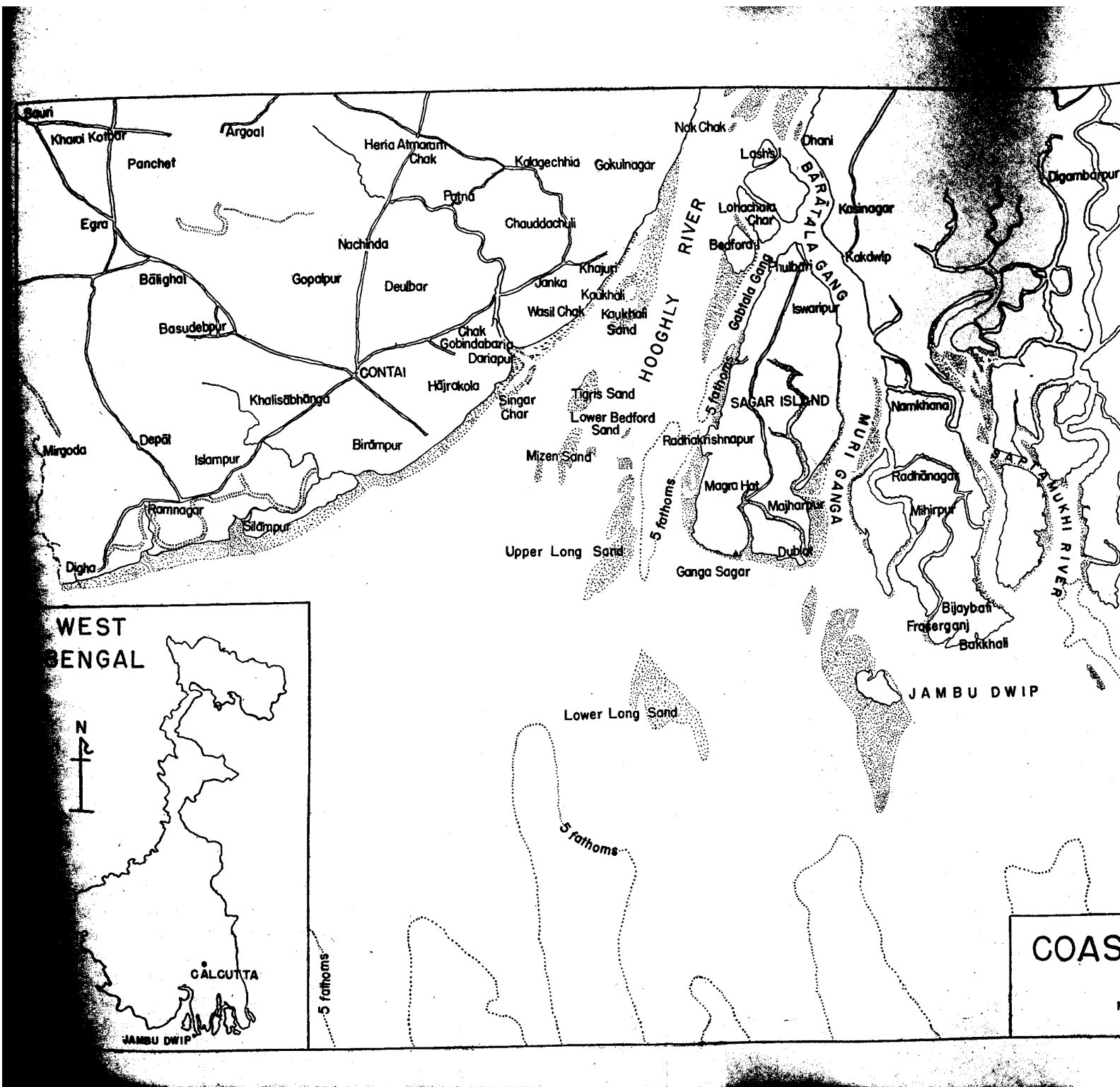
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INTRODUCTION

I

Fishing, as an occupation, can be traced back to prehistoric times almost all over the world. But a few anthropologists have so far shown scanty interest in a systematic study of this most ancient occupation and the people involved therein.

Anthropologists, like Malinowski (1918), Hocart (1937), Radcliffe-Brown (1948) and others, have studied primitive fishing in a few islands, like Trobriand Islands, Edystone and Andaman Islands. But their studies were not primarily focussed on fishing; only incidentally they described the technology of fishing of the primitive islanders. Their main interest was to provide a picture of the total social and cultural system of the people of those islands. Another kind of study was made by Coker (1908), Osgood (1940), Edward (1960), Foster (1960), Lebar (1964), and others. These focuss more specifically on fishing industry and technology. But few anthropologists have studied the sociology of fishing in relation to the peasant hinterland.

With his study of the Malay Fishermen, Firth (1946) opens a new field in studying the sociology of fishing and of the fisherfolk as a part of the regional peasant economy. In recent years a few more systematic sociological/social anthropological study of coastal fishermen has been made, such as Ward's (1958, 1960, 1965) study of the Chinese fisherfolk in Honkong and Frazer Junior's (1962) study of a Malay fishing village as a part of the dual economy.

There are numerous references about the fisherfolk in Sanskrit literature. Hora (1935, 1948, 1952, 1953) has given a detailed account of the knowledge of the ancient Hindus about fish and fisheries of India and references about fish in the Ramayana. From his exceedingly interesting papers, it is seen that fishing as an occupation is very ancient, and he referred to texts like Kautilya's Arthashastra, inscriptions on Ashoka's Pillar, edict V (246 B.C.).

It is unfortunate that so far very little systematic study has been done about the marine fisherfolk in India. During the early phase of anthropological researches in India, the main concern was to note down the customs of the tribals as isolates. It is only during the last two decades that the interest has gradually been shifted to

the structural-functional study of the peasantry in various types of village communities. However, the earlier compendia, the Tribes and Castes provide some general ethnographic descriptions about fishing and fisherfolk in different regions of India.

We have, however, two interesting monographs on the coastal fisherfolk of southern and western India—on the Valayans of Pamban, Madras (Moses 1929), and on the Son Kolis of Bombay (Punekar 1959). In these two monographs attempts have been made to describe the socio-economic and cultural life of the fisherfolk. Ahmed (1966) and Trivedi (1967) have also published two monographs on two fisherfolk villages of Orissa and Kerala respectively. But these reports are in the form of standard socio-economic survey and not in terms of depth study of the world view of the fisherfolk specifically in relation to their primary subsistence economy. Another study on the Kerala fishermen is of Klausen (1968). He gives a description of the original pilot villages as well as an analysis of the reactions to the new set up represented by the Indo-Norwegian Project, since 1953. This book adds to our knowledge the different forms of planned change.

Fisherfolk form an integral part of the Indian peasantry. So, in order to understand the total range of the peasants within the Indian civilization, the Anthropological Survey of India initiated a number of studies in 1967 on the fisherfolk (Sinha 1970). It was decided that, since in the marine fisherfolk were the least known among the numerous fishing castes of India, the various groups specializing in marine fishing may be studied all over coastal India. The various groups involved in inland fishing would be taken up later on.

The present author was assigned to study the marine fisherfolk of coastal West Bengal. The transient fishing community at Jambudwip in 24-Parganas was selected for the purpose.

Coastal area of West Bengal can be divided into two geomorphic units, e.g. the Southern 24-Parganas or the Sunderban area which is in the active portion of the Gangetic delta; the second unit is the coastal strip of Midnapore. This part is a 'dead delta' zone with a prograding coastal plain marked by lines of old beach ridges.

Briefly, Sunderban may be described as a low, flat, alluvial plain in which the process of land-making is still going on. The area is covered with forests and swamps, and is not yet brought under cultivation. Tidal estuaries and creeks have fragmented the whole area into a large number of islands of various shapes and sizes.

Jambudwip is such an island, situated in the Bay of Bengal, about seven miles off shore. The tidal water courses are connected with one another by an intricate series of branches and the latter, in turn, by innumerable channels (Map I). It is completely uninhabited except in the fishing season when the fisherfolk pitch their camps as temporary hutments.

These flat swampy islands are covered with dense forests, the most plentiful and important species being *sundari* (*Heritiera littoralis*), *garan*, etc. Along the sea face, the forest is almost composed of mangroves, which sometimes extend into tidal water, but elsewhere are separated from the sea by a line of low sand hills or dunes (Oldham 1970; Fox 1938; Mukherjee 1938; Bagchi 1944; Spate 1954).

As the necessary preparation started for this study, the striking feature was the paucity of ethnographic literature on the fisherfolk of this region. This rich field has been left almost unexplored by anthropologists. Scattered articles of various nature are, of course, available from different sources. For instance, the Gazetteers (Webster 1911; O'Malley 1908, 1914) of coastal districts of Bengal have given some account of sea fishing. Gupta's report (1908) makes mention of various castes of Bengal (undivided Bengal), Bihar and Orissa engaged in fishing operation along with an account of their fishing gears and some other sketchy information, but very few about fisherfolk themselves. In pursuance of the said report the then Government of Bengal decided that "fishing could be taken up in the Bay of Bengal as a profitable enterprise" (Chakravarty, 1939:26). And some preliminary venture in this line was undertaken. Das (1931, 1932) has tried to give an account of the cultural significance of fish in the life of the Bengali population. Basu. (1946) has given an account of inland fishing technology of the Parois of Jessore (East Pakistan). Although these two professors of the University of Calcutta made an effort to develop a research interest on the fisherfolk in West Bengal, research in this direction did not gain much momentum in subsequent years. It is with this awareness of glaring gap in socio-cultural information on the fisherfolk that the present research project on the Marine Fishermen of Jambudwip was taken up.

The following important questions have been kept in view in the course of the project:

- (i) Have some castes (Hindu or Moslem) specialized in marine fishing vis-a-vis inland or riverine fishing?

- (ii) How do the marine fisherfolk adjust themselves to their special techno-economic task? What adaptive devices in social organization have they developed? And what kind of knowledge of the ecology and technology have developed among them?
- (iii) How do the marine fisherfolk recruited from different villages and families organise themselves for a common pursuit?
- (iv) How do they maintain a moral order as a transient community living in the fishing camp away from their natal villages during the entire fishing season?
- (v) How do these primary producers in fishing trade operate under the stranglehold of the chain of financiers?

It was with these basic questions in view that I proceeded with the present study of the marine fisherfolk of Jambudwip. For such a study it was necessary to record the entire range of technological and social activities and the beliefs and rituals concerning the occupation of fishing based on first hand observation.

II

For the selection of the site for studying the marine fisherfolk of coastal West Bengal, a reconnoitering tour was undertaken in February, 1967, in southern Sunderban area in which a number of sites were visited, such as, Frasergunj, Bakkhali and Jambudwip. Of these, Jambudwip was chosen for intensive study for the following reasons:

- (i) Jambudwip is a small island about seven miles off the main land, and therefore comparatively isolated. The location of Jambudwip is such that no easy contact with the mainland is possible. It was considered that such a situation will help me to understand the life and occupation of the marine fisherfolk in their proper ecological setting.
- (ii) While the population of Bakkhali is large and that of Frasergunj is quite small, the population of Jambudwip is of a manageable size. As such, it provides necessary quantitative data; allowing at the same time scope for intensive and intimate observation.

The data collected during the preliminary investigation in the above three sites were analysed, and a research project was designed

and presented before a Seminar on Research Programmes in Cultural Anthropology and Related Disciplines held in September, 1967, under the auspices of the Anthropological Survey of India (Sinha 1970). A number of suggestions came from the participants like Dr Surajit Sinha, Dr B. K. Ray Burman and Prof N. K. Bose. With their valuable suggestions a revised and improved draft research programme on the study of the marine fisherfolk was prepared.

It was decided that the research project approved in the Seminar would be undertaken from the next fishing season beginning from October, 1967. But, unfortunately, owing to certain technical difficulties in the allocation of funds, the work could not be taken up according to the schedule. However, even without financial support for travel and stay in a very difficult terrain, I determined to keep the project going ahead under the unfailing and inspiring guidance and encouragement from Dr S. C. Sinha, the Deputy Director, Anthropological Survey of India. I decided to begin the work out of a sense of academic urgency at any cost.

The fieldwork was done during the fishing season of 1967-1968. On return from the field, the data were analysed, gaps were noted and subsequently filled up in the next visit to the field. Dr Sinha, the supervisor of the research project, was consulted periodically, and necessary instructions were thus available even in the field. The fishing camps were composed of male folk only except in one camp where an old widow mother of the leader and propitor of the fishing unit was present. My field data, therefore, mainly cover the behaviour of the male fisherfolk in their fishing camps away from their natal villages. However, in order to gain some understanding about how the remaining members of the fishing families behave in their permanent villages, I decided to visit them in their local surrounding. So, to check the data and to supplement certain necessary information, the natal villages of the fisherfolk who temporarily camped in Jambudwip were also visited during 1968-1969.

The following methods commonly employed in anthropological studies were adopted:

- (i) Great reliance was placed on actual observation of the activities of the fisherfolk by camping along with them in the fishing camp itself.
- (ii) Genealogies were collected in order to trace the entire range and rôle of kin relationship.
- (iii) Census and schedules were used for quantitative data.
- (iv) Data on the past were gathered mainly on the basis of

depth interview from old informants and through government records.

The study of the marine fisherfolk was guided by three major hypotheses, viz.,

- (i) in order to cope with a very difficult technological task, the marine fisherfolk will have to develop an elaborate cultural inventory of rational technological knowledge;
- (ii) in order to cover the risk of great uncertainty in catch and the danger of environment, the fisherfolk would systematically need support from supernatural beliefs and will have to develop a certain degree of fatalism in their world view;
- (iii) a transient community of persons living away from the family will have to develop a moral order in order to sustain the transient group of male fisherfolk as a cohesive social group.

The above hypotheses have been tested in the present study. But this report is not limited only to testing the above three major hypotheses. I have consistently stuck to the method of natural history and have attempted to provide an adequate account of how exactly the fisherfolk manage their affairs while in the fishing camp.

Living with the fishermen quite intimately for some months, I could not help being deeply impressed by the quality of job satisfaction that they get out of their involvement in the hazardous and strenuous technological pursuit. I distinctly got the impression that it is not money alone which drives them into such a whole hearted involvement in the work. The challenge and beauty of the open sea, the risk and fun of tracking the shoal of fish, setting up of the net and hauling up in eager expectation, all these together have a charm for them. I hope that in my report it has been possible to communicate the essence of job satisfaction of the fishermen without any romantic exaggeration.

I also hope that I have been able to objectively describe the pattern of economic exploitation of the poor fishermen who strain their muscles and risk their lives in this dangerous occupation. It is for the planners to see how finances may be easily available to them directly through fishermen's co-operatives without any intervening strata of middlemen.

THE FISHING CAMP

The most essential prerequisite of marine fishing is the selection of a site for fishing camp. It requires considerable experience and knowledge of the topography of the locality. A bad selection would mean a loss of the whole season. In the following pages an attempt has been made to note how the fishing camps in Jambudwip came into existence. In this the East Pakistan refugee fisherfolk with their experience and inherent knowledge of marine fishing contributed much along with their counterpart—the West Bengal fishermen. The camping site and the fishing camp have also been described in detail.

A. How the sites of fishing camps were selected by the Fisherfolk from East Pakistan

The fisherfolk of Chittagong and Noakhali districts of East Pakistan naturally developed a special aptitude and traditional skill for marine fishing in their habitats due to ecological set up. After partition in 1947 they were rehabilitated in different parts of West Bengal, Bihar, and Orissa. In their new set up, they tried to adjust themselves to different types of available 'non-caste' occupations (Appendix A); but the hankering for their traditional calling persisted.

It may be mentioned in this context that one Prakash Das (originally from Chittagong), even before the partition of Bengal, used to come with different types of gill nets, viz., *kachal*, *chandi*, etc., to southern Sunderban area. The area was thus already known to him, and when the partition took place, he settled down at Frasergunj (locally known as Narayantala) around 1953. In the same year he organised one *shabar* (fishing unit) on a small scale and established his *khunti* (fishing camp) at Frasergunj. Almost simultaneously another fishing unit of West Bengal proper (belonging to Uluberia of Howrah district) migrated further south from Kakdwip (24-Parganas) and established a *khunti* at Frasergunj.

Four major factors are taken into consideration in establishing a *khunti* in a particular area, viz.,

- (i) proximity of the actual fishing ground to the fishing camp;
- (ii) there must be a natural creek where they can safely harbour their boats.

(iii) sufficient supply of firewood, which is necessary for cooking and for boiling preservatives to be applied to the net to counteract the salinity of sea water; and

(iv) supply of drinking water.

Frasergunj was found suitable for all these factors.

Gradually, the number of units increased to about five at Frasergunj. Both the fisherfolk of West Bengal proper and those from East Pakistan established their khunti side by side in spite of their cultural differences. But around 1954, a conflict arose between an unit of West Bengal proper and that of East Pakistan over the selection of site for net-setting. It led to the formation of two rival groups—East Pakistan refugee fisherfolk and the fisherfolk of West Bengal proper. As a result, an *ad hoc* panchayat was formed with two or three local influential persons (Brahman and Mahishya) and the *bahardars* (leaders and proprietors of the fishing unit) of each group, and the matter was amicably settled. But from the next year the fisherfolk of West Bengal proper migrated to the south-eastern corner of Jambudwip to camp by the side of their brethren speaking the same dialect. It was known to them, and even when they were at Frasergunj, they used to collect fire wood from Jambudwip. At that time, there were about five or units of Uluberia on the south-eastern corner of Jambudwip. They used to get their catch from the area lying between Mausumi Island and Jambudwip. But due to scarcity of drinking water, they had to migrate to the north-western part of the Jambudwip and used to get their catch from the area lying between Jambudwip and Frasergunj. They did not venture to go out into the open sea. At that time, there was no fishing unit of the East Pakistan refugees in the island.

Gradually, silt deposited on the off-shore of Frasergunj, and consequently the catch decreased. Another difficulty was with harbouring their boats in the creek at Frasergunj owing to deposition of silt near the mouth of the creek. Being faced with these difficulties, two *bahardars* of Frasergunj jointly prepared a big net and tried to set it in the area lying between Jambudwip and Mausumi Island in search of better catch. But they were not aware of the depth of the sea there. As a result, it was not possible to operate the big net. So they went to Bakkhali and established their first khunti there, and by 1967-1968 the number of khuntis gradually increased to seventeen.

In the month of *Paus* (December-January), 1964, a *bahardar* from Frasergunj, as usual, went to Jambudwip for firewood. In course of his stroll, he came to the south-western side of the island

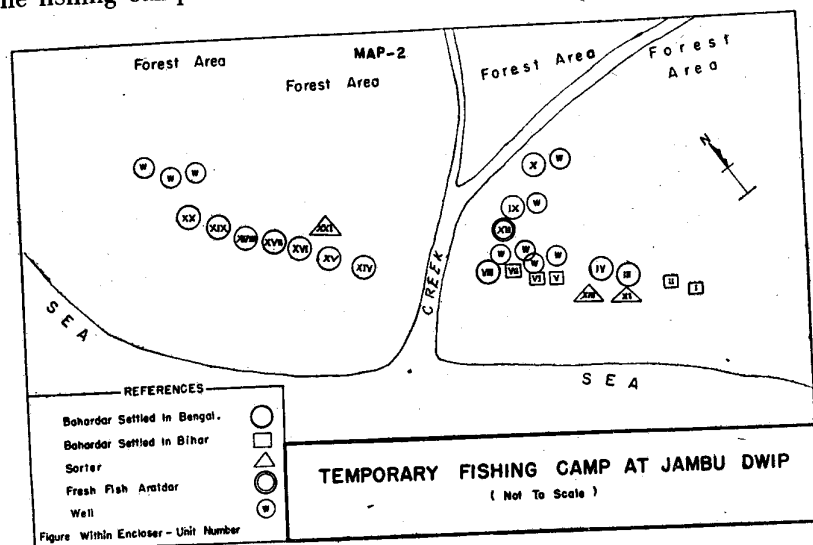
and found natural creek, very suitable for harbouring boats. In search of drinking water a shallow ditch was also discovered within a furlong of the sea-shore. Finding it suitable for setting up a khunti, and the vast open sea which promised a good catch, he brought a net from Frasergunj and set it the next day and was very successful in having a good haul. On the following day, three fishing units (all belonging to East Pakistan refugees) wound up their establishments from Frasergunj and set up their khuntis on the south-western part of Jambudwip. Thus, gradually, the number of units increased. They were established on both sides of the creek. At present, there are as many as seventeen fishing units in that area, all belonging to the East Pakistan refugees. To the south-eastern side of the island, there are twenty-six fishing units of West Bengal proper. But I am not much concerned about the latter group here. The middle portion of the island is covered with forest and marshy land, and there is no suitable facility for communication between the two sides of the island. Because of this ecological set up, in addition to many of their cultural differences, there is hardly any contact between these two groups of fisherfolk inhabiting two sides of the island. Thus it seems that the refugee fisherfolk of East Pakistan, coming from the coastal districts of Chittagong and Noakhali, came to Jambudwip with a special aptitude for sea fishing, and they felt quite at home when they located a suitable fishing ground in the coastal sea.

It may be mentioned here that the fisherfolk cannot afford to stick to one place for long. They have to move with the shoal of fish, and they find pleasure in doing so. It is in this manner that new fishing grounds are being established from time to time. The adventurous spirits of the marine fishermen have helped them to discover new sites. Thus, Frasergunj, Bakkhali and the south-western part of Jambudwip were gradually discovered by them. The fisherfolk of West Bengal proper seem to be less adventurous than their counterpart from East Pakistan. They did never dare go to the south-western side of the island to face the vast open sea to get better catch in spite of the fact that they were in the same island long before the fisherfolk of East Pakistan had any access to it. Owing to their less adventurous spirit and low level of technology, all the fishing grounds, referred to above, are now being dominated by the East Pakistan refugee fisherfolk. Their superiority in this art, both in skill and in spirit, is also accepted even by the fisherfolk of West Bengal proper.

B. Settlement site near the fishing ground

(1) General feature

In Jambudwip, there were seventeen khuntis run by East Pakistan refugee fishermen in 1967-1968. In this section, an attempt has been made to describe the general feature of the site where the fishing camps were located (Map 2).



There is a creek running from north-east to south-west, penetrating half the length of the island. At present, as a result of silt deposition at the mouth of the creek, perennial flow of water is greatly hampered, and the sea water can enter into the creek only during tidal period. During ebb tide, the mouth of the creek completely dries up. So, fisherfolk take out their required boats out of the creek before the mouth completely dries up. One or two enterprising bahardars took the initiative to bring the fact to the notice of the authorities of the Fishery Department at Frasergunj. They also wanted to remove the silt with the help of other bahardars for the benefit of all of them. But this has not materialized as yet.

The central part of the island is covered with forest infested by snakes and wild pigs. It provides the fisherfolk with sufficient amount of fuel for boiling preservative to be applied to the nets and for cooking. To collect firewood, they have to secure Forest Pass from proper authorities.

The most difficult task for the fisherfolk of Jambudwip is to

collect drinking water. For this they have to dig a shallow well only about four feet deep beside their khunti. The wells are lined with perforated drums so that they are not filled in with sand. Even then, the perforated drums cannot check the sand. After every ten or fifteen days, the sand is removed from the well. Water trickles through the perforation and gradually collects in the drum. They have to wait near the well hours together to fetch a bucketful of drinking water.

The rate of water trickling into the well also depends on the *tithi* (lunar position). During *kotal*, i.e. during very high tidal period (new moon or full moon period) when the pressure of water in the sea increases, the water trickles more quickly. But during *dala*, i.e. during low tidal period (approximately fifth to tenth lunar day) when the pressure of water in the sea is low, the trickling rate is also very low. So, during that period it becomes very difficult for them to get their drinking water.

It is not always possible to get sweet drinking water from all wells. Sometimes vows are made in the name of the deity Ganga. *Batasa* (sugar cakes) may also be distributed on that occasion after devotional songs are sung in the name of the Lord Hari. Such action is called *harir lut*. It has been observed that sometimes two wells are situated side by side—one has sweet water while the other oozes out saline water. This variation is attributed to the grace of the deity Ganga. But their rational thinking also seems to play an important role. Instead of being merely fatalists in their expectations, they also take into consideration the soil condition. It is seen from the distribution of the wells (Map 2) that these are clustered in two or three particular areas, where the soil condition is suitable for sweet water.

There are nine wells in Jambudwip. Out of these, only two supply drinking water to all the fisherfolk in the island. It may be noted here that a well might belong to a particular unit, but its water may be used by members of other units. Of course, the owner of a well is sometimes found to grumble during acute period of water scarcity, but he never prevents others from collecting water from the well. Thus, a co-operative spirit prevails in the island among members of the different units.

(2) Establishment of the fishing camp and tenancy right

The khuntis, or the temporary fishing camps, are established on the shore along the sea coast. But sufficient space is left between

the habitation site of the khunti proper and the sea line, so that even during the high tidal period the water level does not reach their temporary shelters. To ascertain the highest water level, the fisherfolk minutely observe the markings of water on the sand bed.

Different fishing units originally came to the island in different years at short intervals. Those who had come earlier naturally occupied the best suitable spots for their khunti near the creek, and those who came later had to establish their khuntis away from the creek.

Incidentally, it may be noted here that, according to the convention, the first occupier has a prescriptive right over the site for the subsequent seasons. But if he fails to come and establish his khunti for one season, he loses his right. Anyone else may then come and occupy that area. This may be regarded as the pattern of tenure right of the fisherfolk.

Again, the khunti owner acquires, so to say, a right over the area lying between the khunti and the sea line, and no one is allowed to set up a khunti in front of another. The khuntis are lineally arranged side by side instead of facing each other, as shown in the Figure 1.

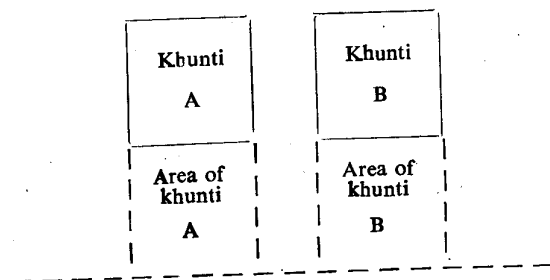


Fig. 1. Khunti and its area

This has its practical utility in the life activities of the fisherfolk. The boats carrying the catch and the heavy nets are anchored in front of their respective khuntis, so that they may be easily carried over to their khuntis from there. For that purpose, the members of each khunti keep that area clean to facilitate movement. It may be noted here that a fellow bahardar may sometimes anchor his boat in the area (ghat) of another khunti, but he has to leave that ghat if the latter so demands. Through such conventions, the fisherfolk avoid conflicts amongst themselves.

(3) Lay out of the fishing camp: utilisation of space

It has been noted earlier that the temporary fishing camps of the fisherfolk are situated a little away from the sea line, so that even during high tidal period the level of water may not disturb their camps.

There is no well demarcated boundary of a khunti. But a conventional boundary is always maintained. One does not, however, find well-maintained fencing in the khunti of Jambudwip, as that is not essential, for, except wild pigs, there is no domesticated animal, like dog, which may spoil their catch. But the khuntis in the mainland, like those at Bakkhali or at Frasergunj are well-fenced with bamboo splits and dry branches of the trees to ward off dogs attracted by fishy smell.

All the structures of the khunti are temporary in nature, so that they may easily be constructed or removed whenever necessary. This is so because the fisherfolk may have to shift their camps following the course of the movement of the shoal of fish even within the same fishing season.

The general lay out of the fishing camps of the different fishing units hailing from different areas does not seem to have much variation (Figs. 2: A-D). These camps may broadly be divided into two heads, viz.

- (a) within the compound of fishing camp;
- (b) just outside the compound of fishing camp.

(a) Within the compound of fishing camp:

The important components within the camp are kitchen (*paker-ghar*), store (*gola-ghar*), bed-room (*sobar-ghar*), shine (*Ganga mandir*), fish drying rack (*daur*), open courtyard (*khola*), and fish drying platform (*khang*).

(i) *Kitchen, store and bed-room*: It is a long rectangular two-roofed hut containing the kitchen, store and bed room. The fisherfolk take thin shelter in this hut when they are on the shore. Generally one side of it is used for cooking and the other for storing the dry fish (Fig. 2: A). In some cases, the cooking may also be done in an open place in one corner near this long rectangular hut (Fig. 2: B). The central part of the long hut is used as bed-room, and for net knitting, dining, etc.

The structure of the hut is temporary in nature. The plinth is practically absent, and wherever present, it hardly exceeds a height

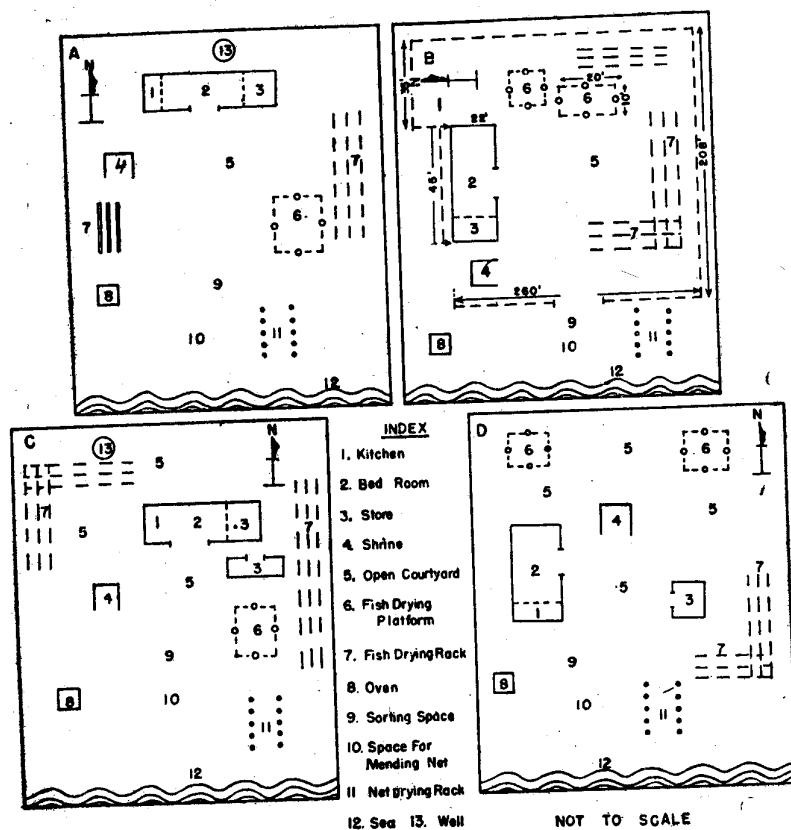


Fig. 2.A-D. Ground plan of fishing camps.

of three inches from the level of the courtyard. The posts are of bamboo or wood. The two sloped roofs are made of *hogla*, a kind of water twig purchased from Kakdwip. Mostly, two sides of the room remain open. The northern side is completely covered with *hogla* due to the chilly northern wind. The same material is used to cover the side walls of the store room. In some cases, the store room is also constructed separately (Fig. 2 : C), because they consider it sacred. Hence, it should be constructed separately lest it is polluted by the residue of half fed food (*uchhista**).

(ii) *Shrine*: In every khunti there is one shrine of the deity

The concept of *uchhista* is very strong among the Hindus of Bengal. Anything touched by mouth is thought to be polluted of *uchhista*. Hence, the sacred objects have to be kept apart.

Ganga. It is generally situated near the entrance of the khunti. In a few instances, it may also be seen at the centre (Fig. 2:D). But it must always face south which is believed to be the abode of the deity. It is a miniature hut with two sloped roofs. The roof is made of *hogla* a kind of grass, which grows in abundance in the island. Three side walls are also covered with the same material.

Incidentally, it may be noted here that by the side of the shrine of Ganga in Bakkhali, there is another miniature shrine for Badar Saheb, a Muslim fakir.

(iii) *Fish drying rack*: It is made of bamboo splits and constructed longitudinally along the boundary of the khunti. When innumerable fish are hung on these racks to dry them up, it gives a pleasant look to the fisher folk. Such racks, well filled with fish, are compared by them with the garlands of flowers. The racks serve the purpose of maintaining a sort of boundary of the khunti as well. All the sides of the khunti are not, of course, provided with such racks. As the main purpose of the racks is to dry up the fish, these are constructed in such a way that maximum utilisation of the sun's rays may be made. In case of bumper catch, the number of racks is increased according to their necessity.

The racks are of two major types. They vary according to the type of fish suspended thereon. The racks used for hanging laitta fish (Bombay duck or neru) is as follows:

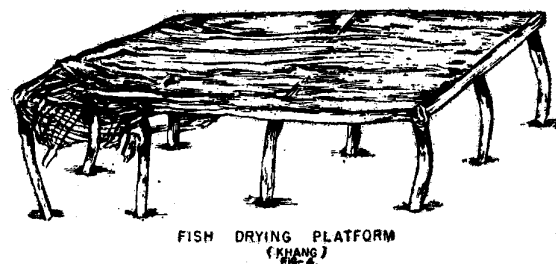
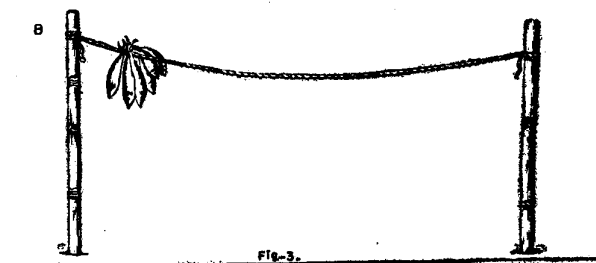
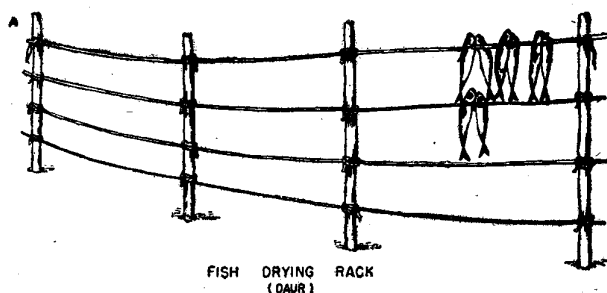
Eight to ten bamboo splits are planted vertically at a distance of about five feet each. Then three or four bamboo splits are tied horizontally at a distance of about one foot with the vertical posts. The laitta fish are hung to dry them up over each of these horizontally placed bamboo splits. The vertical bamboo splits give extra support to the rack to withstand the weight of the fish when suspended in different layers (Fig. 3:A).

The other variety of daur is very simple. It consists of two vertical posts supporting another horizontal one. (Fig. 31: Stage 3). This type is used to hang half dried *chhuri* fish.

A variant of this type is also sometimes noticed in the khunti. Instead of the horizontal bamboo piece, a strong rope is tied horizontally with the two vertical bamboo posts (Fig. 3: B). It also serves the same purpose for hanging the *chhuri* fish. But it has

some practical inconvenience to hang or remove the fish quickly. So this type of daur is not preferred by the fisherfolk.

(iv) *Open courtyard*: The rooms or any other constructions are arranged in such a way so that sufficient space is left, generally in the centre, to spread out fresh fish to be dried up in the sun (Fig. 2: A). Besides the centrally located bigger khola, one or two other small kholas may also be noticed at the back of the bed-room or in any other suitable side of the khunti (Fig. 2: C and D). The floor of the khola is covered with straws or jungle grass and finally with discarded weathered nets to protect the fish from sand.



(v) *Fish drying platform*: In every khunti one or two fish drying platforms are noticed. The platform is about five feet high. It is

constructed over bamboo or wooden posts and the platform is made of bamboo splits or dry branches (Fig. 4).

(b) *Just outside the compound of fishing camp*:

This area includes the following functional zones:

(i) *Space for sorting fish*: It is an open clear plot of land where the fish are stacked when brought from the sea. This place is utilised for sorting the fish (Fig. 2).

(ii) *Space for mending, drying, etc., of the net*: It has been noted in Chapter V that the nets are of quite big size. Just in front of the khunti compound a spacious area is allocated for drying and mending the net (Fig. 2).

(iii) *Space for boiling preservatives for the net*: In one corner of the space allocated for mending and drying the net is seen a big oven. It is made just by digging the earth. The ditch is about three feet deep, five feet long and two feet wide. The width of the ditch is sometimes increased to boil preservatives in two drums at a time. The containers are then kept in a hanging position. The sides of the oven are sometimes covered with mud walls for maximum utilisation of heat (Fig. 2).

(iv) *Space for daur or rack for drying net*: In one side of the open space allotted for mending or drying the net, two or three strong bamboo racks are constructed to spread the wet nets after applying the preservatives (Fig. 2).

Thus it is seen that the lay out and utilisation of space of the fishing camp are essentially correlated with the life activities of the fisherfolk near the fishing ground.

DISCUSSION

From a study of the refugee fisherfolk from East Pakistan, it has become apparent that the original ecological set up of the coastal districts (Chittagong and Noakhali) developed in them a special aptitude and longing for marine fishing. When they came over to India, they were, no doubt, handicapped for some time and had to take to a number of 'non-caste' occupations for bare subsistence. But that was only a temporary phase. They were always on the look out for an opportunity for starting their traditional occupation. It was not long before they carved out an opening for it.

Their adventurous spirit and superiority in skill over the local West Bengal fishermen led them to the discovery of new fields

of operation and helped them in superseding the marine fisherfolk of West Bengal proper.

In selecting the site for establishing the temporary fishing camps, they always kept in view the essential criteria like natural creek, sources of drinking water, availability of sufficient fuel for boiling the preservatives of their net and for their cooking, proximity of the actual fishing ground, etc. They were also conscious of the development of some conventional prescriptive right over land to establish the temporary fishing camps or over sea to operate the fishing net which are essential to the fisherfolk to avoid many complications which might crop up and disturb their profession.

They lay out and utilisation of space of the fishing camps are corollary to the activities of the marine fisherfolk. The temporary nature of the construction of the fishing camps may be attributed to the wandering nature of the profession. Besides that, the seasonal nature of the profession is also putting a premium to it.

ORGANIZATION OF THE FISHING UNITS

Marine fishing requires considerable man power and capital. So it is not possible for a single family of fisherfolk to meet all the requirements. An enterprising fisherman recruits the required man power mainly from his own and neighbouring villages. They form a well organised band of workers belonging almost entirely to the fisherfolk castes. They act on a principle of mutual co-operation and co-ordination in the fishing ground, away from their families. This cohesion is further strengthened by the fact that the fishing units are by and large village, kin and caste based and are virtually limited to the dialect groups either from East Pakistan or West Bengal, as the case may be. In the following pages, an attempt has been made to analyse the rationales for the different types of fishing units, the pattern of recruitment, role allocation, management, and entrepreneurship.

At the outset, a general account of the fishing units of Bakkhali and Frasergunj has been given. It has been followed by detailed treatment of the fishing units of Jambudwip.

A. Fishing Units

(1) Types and distribution

The fishing unit, known as shabar, comprises of a band of recruited persons who work together under a leader, known as *bahardar*, for a common goal, i.e. to have a bumper haul.

The fishing units are of two types, viz.

- (i) The units members of which are recruited on share basis, known as *bhagi-shabar* (shared unit).
- (ii) The units whose members are recruited on salary basis, known as *maynar-shabar* (salaried unit).

The fishing units, either on share or on salary basis, are valid for one fishing seasons, i.e. for about four months (from middle of October to middle of February). It is said that in Chittagong the fishing units were mostly based on salary, while in Noakhali they were on share basis.

In Table 1 the distribution of the fishing units in three different fishing grounds in 1967-68 is shown.

Table 1. *Distribution of fishing units*

Serial No.	Fishing ground	No. of units	Total members	Average size
1.	Jambudwip	17	243	14.3
2.	Bakkhali	17	550*	32.4
3.	Frasergunj (Narayantala)	13	170*	13.8
	Total	47	963	20.5

From Table 1 it is seen that the average size of the fishing units is the largest in Bakkhali, followed by Jambudwip and Frasergunj respectively. As a matter of fact, Bakkhali is the reference model in the vicinity. There the *majhis* are better paid (some even draw a salary of Rs 1,200 for the season) as they have to handle bigger nets and to go about ten to twelve miles off the shore for better catch. In short, they have to work very hard. They are much commercialised in nature, and their fishing operation is conducted on a large scale.

The bahardars of the fishing units of Frasergunj and Bakkhali are mostly originally from Chittagong (East Pakistan), who have settled in different parts of India as will be evident from Table 2.

Out of the seventeen fishing units of Bakkhali, sixteen are from three contiguous villages, viz., Aukhaynagar, Ganeshpur and Kalinagar near Kakdwip; while in Frasergunj, the fishing units are mostly local (eight out of thirteen), although originally migrants from Chittagong (7) and Midnapur (1). Another point of note is that in Frasergunj, one of the bahardars originally belonged to Midnapur, but now settled in Frasergunj. He has established his unit side by side with those of the East Pakistan refugee fisherfolk. His unit members consist of both local and East Pakistan refugees.

The caste composition of the bahardars of both these two fishing grounds is given in Table 3.

Table 3 shows that the bahardars are mostly from among the fishing castes (Kaibarta, Jala Das). Only three bahardars, out of thirty, belong to three non-fishing castes, viz., Kayastha, Mahishya and Sahu.

(2) Rights and privileges

It has been noted earlier that there are two types of fishing units, shared and salaried, in Jambudwip. Some social conventions have

*Approximate number is given

Table 2. *Present village and original district of the bahardar of the fishing camps of Frasergunj and Bakkhali*

Sl. No.	Present village and district of bahardar	Original district of bahardar				Total
		Chittagong Fishing ground Frasergunj	Chittagong Camp Bakkhali	Noakhali Fishing ground Frasergunj	Midnapur Fishing ground Bakkhali	
1.	Aukhaynagar (24-Parganas, West Bengal)	—	4	—	—	6
2.	Begemore (24-Parganas, West Bengal)	1	—	—	—	1
3.	Bansmohan (Champaran, Bihar)	1	—	—	—	1
4.	Basanti (24-Parganas, West Bengal)	1	—	—	—	1
5.	Chakda (Nadia, West Bengal)	—	—	1	—	1
6.	Frasergunj (24-Parganas, West Bengal)	7	—	—	1	8
7.	Galipur (Midnapur, West Bengal)	—	1	—	—	1
8.	Ganeshpur (24-Parganas, West Bengal)	—	7	—	—	7
9.	Hanskhali (Nadia, West Bengal)	1	—	—	—	1
10.	Kalinagar (24-Parganas, West Bengal)	—	—	—	—	—
	Total	10	12	1	1	24

Table 3. Caste composition of the bahardars of Bakkhali and Frasergunj

Serial No.	Caste	Fishing ground		Total
		Bakkhali	Frasergunj	
1.	Kaibarta (Jala Das)	15	11	26
2.	Kayastha	—	1	1
3.	Mahishya	—	1	1
4.	Sahu	1	—	1
5.	Rajbanshi	1	—	1
	Total	17	13	30

developed regarding rights and privileges of the members in these two types of units.

In the shared units, every person has the privilege of visiting his natal village for about a week in the whole fishing season. But this is never allowed in the salaried units. As a matter of fact, those who are in shared unit are mostly from the villages of Basudevpur and Baikunthapur (near Tribeni, Hooghly) or Majherchar (near Kalyani, Nadia) while the personnel in salaried unit are mostly the East Pakistan refugees settled in the district of Champaran in Bihar, far off from the fishing ground. Owing to the relative proximity of the natal villages of the personnel of the shared unit, it is possible for them to visit them for about a week in a fishing season.

After the *badyna* (advance money) is accepted by any prospective person for the ensuing fishing season, he becomes a part and parcel of the fishing unit. In a shared unit, even if that person falls ill, or due to some unavoidable circumstances, cannot accompany the unit in the beginning, he has the right to join it later. But in that case, he will not get the share of the profit which was earned prior to his joining. But if he cannot join the party at all, he has to repay the advance that he had taken. On the other hand, if anybody of the salaried unit, cannot accompany the unit in the beginning after taking the advance, he forfeits his right to join the unit later on; and it depends on the discretion of the bahardar whether he should be taken in. Generally, in that case the bahardars deduct some amount from his salary and allow him to join.

If anybody falls ill in a shared unit, his medical expense, including food and medicine, is borne by all, and if he stays in the khunti, he gets his equal share with others. But if he returns to his natal village, he may, or may not, get a part of his share. But in the

salaried unit, an ailing member will get only food, but no medical expense.

In shared unit, the standard of food is comparatively high. Of course, the bahardar tries to curtail it on the ground of economic reason. If he can save money on fooding charge, he can get more on account of his share on net or boat.

In shared unit, the cost of minor repairing of the net is borne by all. But if any part of the net is lost or severely damaged, it has to be replaced by the owner of the net who is mostly the bahardar himself.

The cost of applying preservative to the net is to be borne by all the members of the shared unit. But the owner of the net must bear the cost of the first preservative, (i.e. one applied to a brand new net).

In case of salaried unit, the bahardar bears the entire cost. The salaried crew get their fixed pay. They do not have any bearing whatsoever on the profit or loss of the bahardar. But in case of loss, it is a moral obligation that they contribute some amount of their salary to compensate the loss of the bahardar. In the same way, in case of high profit, the bahardar sometimes gives some extra money and presents to the persons of his choice. Because of this reason, the bahardar of a salaried unit always tries to suppress the amount of his profit lest his crewmen demand more. In case of high profit, the bahardar of the shared unit also gives some presents and feasts to his crewmen at the close of the fishing season.

The shared unit thus operates as a cohesive social unit sharing common sentiments; whereas the salaried units are more contractual in character, operating strictly under the authoritative supervision of the bahardar for maximising profit.

In recent years, there is a tendency to switch over the fishing units from the shared to the salaried basis. As a matter of fact, it largely depends on the economic capacity of the bahardar. In shared unit, the bahardar runs less risk, for, both the profit and loss are borne by all; whereas in case of salaried unit, the bahardar has to run considerable risk, as he has to pay the salary and maintain his recruited persons with food and lodging for the whole fishing season, whether he can make any profit or not. As a matter of fact, generally the fishing units do not run at a loss in terms of the total haul for the season. One shared unit was, however, found to incur loss (Appendix I).

About half the amount of the salary is to be paid initially as

advance, thus necessitating a considerable amount of cash money in hand. For this, the poorer bahardars do not venture to start a fishing unit on salary basis. But, gradually, when confidence is gained, they switch over their unit from share to salary-based. It is also worth mentioning here that in a shared unit the bahardar does not command so much authority over his recruited personnel as he does in a salaried unit simply because all the persons in a shared unit have equal right. There is another difficulty in the shared unit. Sometimes, on the plea of slight indisposition one may refuse to work. But in salaried units one has anyhow to obey the order of the bahardar. In short, the bahardar in a salaried unit may operate as a virtual dictator.

Thus it is seen that bahardars wield considerable power and influence in their units, which though suppressed at times owing to economic reason, flare up in opportune moments.

(3) Recent trends

In the bhagi-shabar, the traditional custom is that all the persons comprising the fishing unit would get equal share of the net profit in cash. The share of the individual is known as *ga bhag*. In their traditional system in East Pakistan, the bahardar used to bear the entire cost of operation, except the cost of food. He had to bear the cost of bamboo, wooden posts, wire ropes, etc., required to set the net as also the entire cost of the construction of the khunti on the shore. He used to get only one extra share for each net and half share for each boat supplied by him. The same rule prevailed for about two or three years even after the partition of Bengal when these fisherfolk came over to settle down in India. But around 1959-60, the traditional share system has undergone a change due to the initiative of three or four bahardars. They convinced others on the plea that the cost of production was rising while market price of the dry fish (about Rs 25 to Rs 30 per maund) was going down. Further, for infiltration of new fisherfolk population from East Pakistan in marine fishing in the area, there was a sudden rise of the supply of dry fish in West Bengal market while the possibility of its marketing in other states was not explored.

Since about 1959-60, a convention has been established that all the expenses, including the cost of bamboo, wooden posts, etc., which are necessary to set a net, and the cost of the establishment of the khunti on shore (in short, all the expenses of the shabar) are to be included in calculating the cost of the production in fishing operation.

The net profit will be calculated after deducting the total cost from the total sale proceeds. Now-a-days, for each net there are two shares and for each boat one share instead of one and a half shares respectively as was prevalent previously. Thus we find here that economic factors are changing a traditional system.

It may be noted here that the unit members change their bahardars quite often as will be seen later on also. Although all the members in a shared unit contribute equally to purchase the articles (except the net) necessary for the ensuing shabar, none of them has any right to claim any part of the articles of the shabar if one does not accompany the same unit. But very recently in 1967, some of the members of the shared unit were found to discuss this issue. They were intending to claim that the bahardar should pay half the price of the articles if anybody leaves the fishing unit in the next season, as the cost of bamboo, wooden parts, etc., has also gone up.

Thus it is seen that the economic consideration and the feeling of proprietary right are gradually having considerable impact on the traditional shared units.

B. Recruitment of the unit members

Towards the end of the fishing season, the bahardar makes a preliminary selection of persons for the next season. He may also confide his choice to his *khuntir majhi* (general manager), whom he trusts. It is made on the basis of the record of the service of the person concerned. Some may also voluntarily propose to accompany a particular bahardar. But no final word is given at this stage.

At the close of the fishing season, when the fishermen return to their natal village, they carry a vivid impression of the activities and personality of the individual fishermen and bahardars of the adjacent khunti units around a fishing ground. The image of the fishing ground plays an important role in including or excluding a person from the unit for the coming season.

In case of shared units, the crewmen are more particular in selecting their bahardar, for, he must be one whom they can rely upon. It is due to the fact that the bahardar goes with every *challan* and controls the whole cash money. So they always try to accompany such a bahardar in whom they have absolute faith. It has also been observed that the shared units are more close kin and village oriented, as they will have to know one another better than in the case of the members of the salaried units.

Returning to their natal village, the bahardar keeps a close watch

on the persons of his choice, and goes on with the preparations for the next season. During the rainy season the villagers are in great economic difficulties. The bahardar takes that opportunity and goes on floating money as advance to the poor fisherfolk in order to keep them under obligation to join his party. As a matter of fact, like the *zamindar* in a peasant society, the bahardar looks after the necessity of the persons of his choice, of course, for his own interest. The villagers, on their part, get economic assistance from the bahardars at the time of their necessity.

Around the month of Aswin (September-October), the bahardar gets the final word of participation as a member of the crew from the persons of his choice. In case of the salaried units, the decision of the bahardar is final, and no one else of the unit has any say in the matter. But the bahardar of the shared unit is not always the sole decision-maker. He calls for a meeting of all the persons of his choice to have a free discussion about the persons tentatively chosen by him, for, all are equally affected by any ill choice and inclusion of an unwelcome partner. So they come to a final decision in the meeting. As a matter of fact, the bahardar of the salaried unit also generally discusses of this issue with some of his fellow members to feel their pulse, so that a cohesive unit may be formed. The final decision regarding the choice, however, rests with the bahardar.

After getting the consent of the persons of his choice, the bahardar gives some bayna (advance money) to them, and a formal unwritten contract is made. None can break the contract thereafter without the consent of either of the parties concerned. If any other bahardar wants to take any person who has already made the contract, the latter bahardar has to take permission from the former one, and the money taken as advance shall have to be refunded. But if anybody breaks the contract without the consent of the bahardar, and if he belongs to the same or an adjacent village, the bahardar may try to oppose such transaction through the panchayat (*salish*) of his village with a few representatives of the village of the person who wants to change the bahardar. But if they cannot come to any amicable settlement, the case is again raised with the bahardars of other villages at Uluberia (Howrah)—the biggest dry fish market centre of West Bengal where all the bahardars who work on southern Sundarban coast assembled. It is worth mentioning here that such a panchayat becomes absolutely necessary when a bahardar arranges everything investing a huge amount of money just on the basis of unwritten formal consent of his crewmen. Without such a

controlling power vested on the panchayat, it would have been difficult to run such an enterprise. As the bahardars always try to include the efficient persons in his unit, sometimes it so happens that they try to tempt a particular person with higher salary, and such a competition is always found between two bahardars. Further, it has been observed that the bahardars try to engage some of the near kins or friends of those for whom they cherish special fancy. The near kin or friends try to exert their personal influence on behalf of the bahardars. In addition to these initial arrangements, the behaviour and goodwill of the prospective bahardar always play a vital role in successfully recruiting a person. In a state of social isolation from family life, a prospective fisherman expects considerate and kind treatment from the bahardar in the fishing ground. It has been observed that the bahardars are also usually conscious about all these and exhibit immense patience in all sorts of intra-khunti conflicts and try to solve them amicably, for, otherwise, the goodwill of the khunti might be sullied and future recruitment hampered.

Thus in the recruitment of the personnel for the fishing unit, the following factors seem to be important:

- i) Good will of the bahardar; sympathetic treatment and financial assistance to the expectant crewmen at the time of necessity.
- ii) Inter-personal relation—either kin or otherwise.
- iii) Economic allurements and convenient terms.

C. Formation and splitting up of the fishing unit

At present, all the bahardars of Jambudwip belong to fisherman castes and have long experience in this occupation. Before the partition of Bengal, they were also following the same occupation in their original districts.

The main difficulty faced by the bahardars from among the East Pakistan fisherfolk was to secure money for their trade which requires an initial investment of the order of at least rupees seven to eight thousand. The poor fisherfolk, in general, could not secure such a huge amount in their new environment. Some of them, of course, made a desperate attempt and invested the whole amount of saving that they could bring to India from their natal villages in East Pakistan. Moreover, a large portion of the amount of money they received for house building from the Rehabilitation Department was invested by many to prepare the fishing gears, like net, boat, etc.

Some of them also knitted nets in their transit camps even before rehabilitation in expectation of future use.

Even then, very few of them could secure the required money. They were unknown to the *dadandars* (i.e. the *mahajans*) who advance the money. They, therefore, refused to advance any money to them. Under such circumstances, some of them jointly started two or three units on a small scale, and many others participated therein on share basis. Thus the marine fishing units in Jambudwip came into existence.

In this way, the fishing operation in Jambudwip continued for two or three years. By that time the smart and intelligent participants, who were mainly the majhi or the khuntir majhi of the fishing units, could pick up all the intricacies that were necessary to run the business. They also became known to the *dadandars* and got the assurance from them of receiving money to start new fishing units. But old bahardars never encouraged such splitting up of their own units. As a matter of fact, the *dadandars* have their own interest to get as many new bahardars as they can put under their stranglehold to fetch more money (Chapter VII).

The reason for splitting up of the units is scarcely due to any quarrel. No doubt, at times there are hitches of a minor nature in the fishing camps. But they are not prolonged and are automatically settled among themselves then and there. The main reasons for splitting up of the fishing units are basically three, viz.,

- i) the urge for power and leadership;
- ii) social prestige and
- iii) economic stability.

All these three may be attained by being a bahardar. Thus, guided by these three factors, the fishing units gradually split up under the initiative of aspiring individuals. No doubt, in case of great economic loss for two or three years continually, many of the bahardars have to dispose of their shabar. Instances of these extreme cases are also not rare. But the process continues in a cyclic order, i.e., after disposing of their own shabar, they wait for an opportune moment to start it again. It is worth mentioning here that he who has once worked as a bahardar scarcely accompanies, either on share or on salary basis, any other fishing unit under any other bahadar on prestige issue even after disposing of his own shabar for economic or other reasons.

Out of the seventeen bahardars of the same number of fishing units of Jambudwip, eleven were originally found connected, in some

way or other, with at least one unit or other for a few years. Then they got separated in opportune moments for the reasons noted earlier. The splitting up of the units may be diagrammatically represented as in Fig. 5. Six other bahardars started their units independently with the help of the majhi or khuntir majhi of one fishing unit or other. For example, Unit No. I started independently. But Unit No. II and VII were together for two years. Later on Unit No. II got separated since one year and started functioning independently.

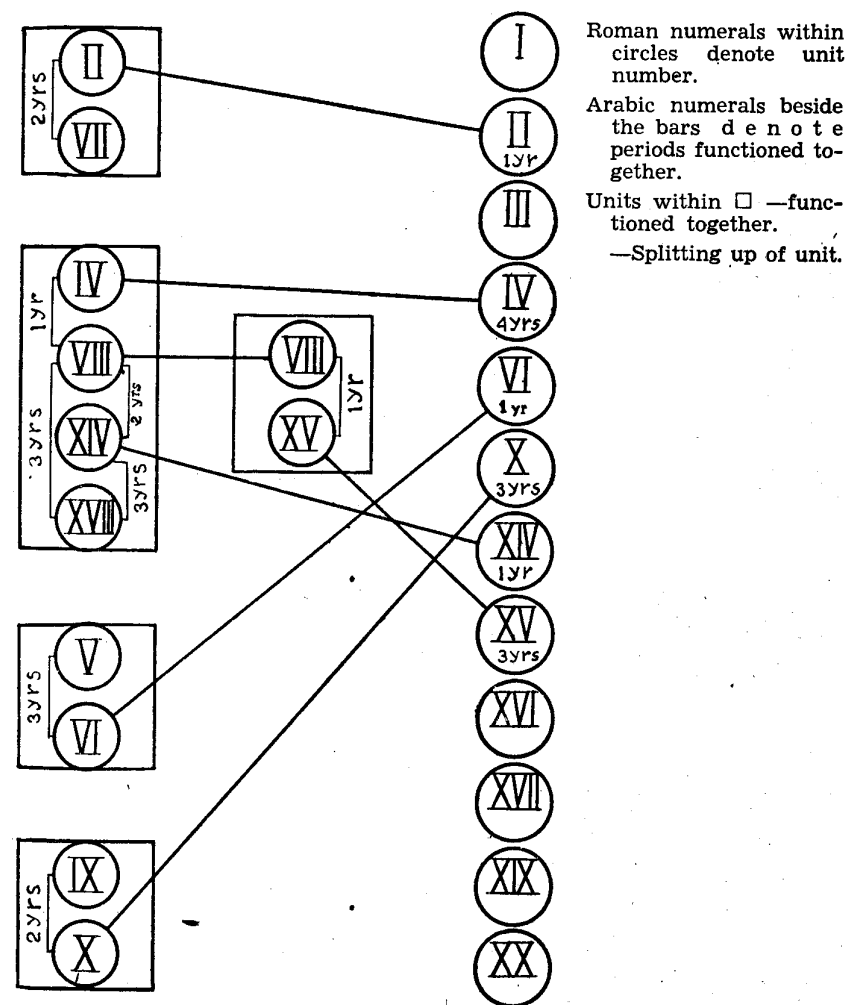


Fig. 5. Splitting up of fishing unit.

D. Structure of the fishing unit

Each unit is headed by one leader, known as bahardar, who recruits his personnel either on share or on salary basis. The overall management of the fishing unit at the fishing ground is vested on a person known as khuntir majhi who stays in the khunti. The bahardar himself does not get much time to stay in the khunti, for he has to go out for various purposes, such as to procure different articles or to secure money or other things. All those who stay on the shore (*khuntir lok*) work under the instruction of the khuntir majhi, and even the bahardar follows his guidance and suggestions.

Besides these, in each unit there are at least two boats—the bigger one is anchored in the sea where the net is set, and the other is used to carry the catch to the shore and to supply the necessary articles to the boat anchored near the net. Each boat is placed under the care of one known as majhi. The head or the bara majhi must have minute knowledge of the immediate environment. His job is to find out the locations where the nets are to be set. He stays near the net with his crewmen (*danri*) and decides how to handle the net. The success or failure of the unit largely depends on him; as such he has a high position in the unit. Under each majhi there are five or six crewmen who are known as danri. They work under the instruction of their respective majhi. The majhi of the smaller boat (*chhota majhi*) works under the instruction of the bara majhi. Besides these, there is one cook (*paki*) on the shore. He makes all the arrangement for cooking. The cooking for each boat is done separately in the boat itself. It was found that even if the boat was anchored at the shore, the cooking arrangement was made separately with regular supply of ration from the khunti. It is true that recurring expense increases for separate cooking establishment. But the economic loss has to be foregone. This is due to the fact that those who stay in the boat have no fixed time for taking their meal, as they have to ply the boat according to the tide and ebb, remove the catch from the net and set the net anew. When the boatmen come to the shore, they work according to the instruction of the khuntir majhi. But as soon as their services are required by the majhi, they are released by the khuntir majhi. The majhi may ask for the service of any one from the shore if necessity arises. It is mutually arranged among themselves that one group of boatmen continuously attends the net in the sea for about seven or fifteen days, and another group carries the catch. In the next term their

duty is exchanged. This arrangement is made for the fact that the group which attends the net has to work very hard throughout the day and night at the risk of their lives as they have to pay special attention to the net and to the timings of tide and ebb when the hauls have to be removed.

The structure of the unit may thus be diagrammatically represented in Fig. 6.

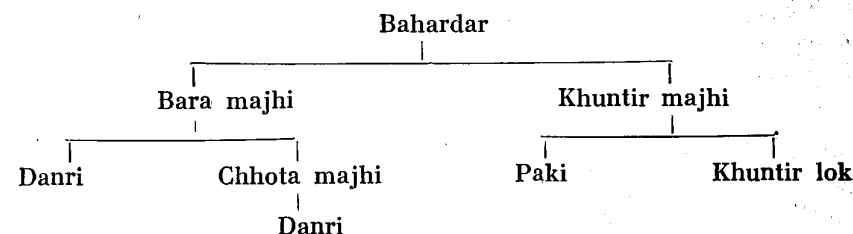


Fig. 6. Structure of the fishing units

But in shared unit, the khuntir majhi, as such, is generally lacking. But there is a person who keeps all the accounts of the khunti. He may be termed as khuntir majhi. He does not always stay in the khunti and even goes to attend the job elsewhere if necessary.

E. Size of the fishing unit

The seventeen fishing units in the island are distributed as follows:

Table 4. Size of the fishing unit

Types of fishing unit	No. of unit	Average unit size	Total member	Range of unit member
Shared	7	13.6	95	5 - 17
Salaried	10	14.8	148	9 - 20
Total	17	14.3	243	5 - 20

It is seen from Table 4 that the average size of the shared unit is slightly less than that of the salaried ones. It may be because the profit and loss of the shared unit have to be shared equally, the participants are cautious about enlarging the unit beyond an optimum size. Moreover, as the bahardar of the shared unit gets his share of the net, he wants to minimise the number of individuals in his unit so that he can get more as share for his net.

F. Place of origin of the bahardar and the fishing unit

It has already been mentioned that of the seventeen fishing units in Jambudwip ten are on salary basis, and seven are on share basis. As is expected, the bahardar always recruits from among those whom he knows and from his own village. But the category—shared or salaried—depends on the proximity of the fishing ground (Table 5). As the shared ones pay their visit to their native villages at times, they would prefer to be on share. Incidentally, it may be noted here that all the units in Bakkhali and Frasergunj are on salary basis.

Table 5. Past and present residence of the bahardar

Present village and district of the bahardar	Original District of bahardar				Total
	Noakhali Unit type		Chittagong Unit type		
	Salary	Share	Salary	Share	
Bansmohan (Champaran, Bihar)	—	—	5	—	5
Majherchar (Nadia, West Bengal)	4	—	—	—	4
Baikunthapur (Hooghly, West Bengal)	1	2	—	—	3
Basudevpur (Hooghly, West Bengal)	—	5	—	—	5
Total	5	7	5	—	17

From Table 5 it is seen that

- (1) the majority of the bahardars of Jambudwip are originally from Noakhali;
- (2) the salaried units are either from Bansmohan or Majherchar. The former village is far off from the fishing ground;
- (3) the shared units are from two adjacent villages, viz., Baikunthapur and Basudevapur. Neither of these villages is far off from their fishing ground;
- (4) there is no shared unit in the case of bahardars whose original district was Chittagong.

G. Caste composition of the unit members

Besides the village based composition of the fishing unit (as will be seen later on), it is caste based as well. It has been said earlier

that there are only three bahardars of non-fishing castes in Bakkhali and Frasergunj. But in Jambudwip, all the seventeen bahardars belong to fishing caste (Kaibarta). Out of the total 243 individuals at Jambudwip fishing camps, there are only fifteen non-Kaibarta members engaged in different fishing units. After close scrutiny of the role of these fifteen individuals, it will be seen that they are scarcely engaged in actual fishing operation (Table 6).

Fishing, with all its associated operations, being a specialised job, requires much skill and experience. Hence, in the fishing unit, actual fishing operation is controlled by the fishing castes only, non-fishing castes could not get an entry into it.

H. Past and present residence of the unit members

After the partition of Bengal, some fisherfolk have migrated to India and settled in different villages either on their own choice or in different government colonies. It has been reported that in East Pakistan they used to live in different villages usually exclusively occupied by them. The same tendency is also noticed here when they settled in India. Their original district of migration has also been noted as will be evident from Table 7. In the same table, the following salient features are observed.

- 1) 243 unit members hail from 30 different villages.
- 2) The unit members are mostly from Noakhali (136) and Chittagong (72).
- 3) The people from Noakhali are mostly settled in three villages of West Bengal, viz., Majherchar (26), Baikunthapur (28) and Basudevapur (42). The last two villages are adjacent to each other. On the other hand, the people from Chittagong are mostly settled in Bihar.
- 4) The members who have come on share basis mostly live in relative proximity to their fishing ground, viz., Jambudwip. This may be due to the fact that according to the convention of the shared unit, as noted earlier, each member can pay a visit to his natal village for about a week once in the whole fishing season. But this is not possible in case of those whose villages are far off from the fishing ground. Keeping this in view, the people of Baikunthapur, Basudevapur, etc., have come on share basis. Tradition also seems to play an important role in this respect. In their original district, the people of Noakhali also worked more on share basis in East Pakistan while the people of Chittagong worked more on salary

Table 6. Role of non-Kaibarta castes in the fishing unit

Role in fishing unit	C a s t e						Total
	Tanti	Kayastha	Malo	Namasudra	Rajbanshi	Mahishya	
General management	1	—	—	—	—	—	1
On boat, e.g. net setting, catch collection, boat plying, etc.	—	1	—	2	1	—	4
On land, e.g., fish, sorting, fuel collection, etc.	—	—	—	—	1	1	3
Cooking	—	1	1	2	—	—	4
On land and boat	—	—	1	2	—	—	3
Total	1	2	2	6	2	1	15

Table 7.—Present village and original district of migration

State	District	Police Station	Village	M i g r a t e d f r o m (D i s t r i c t)			
				Chittagong		Noakhali	
				Unit type	Salary Share	Unit type	Salary Share
Bihar	Jagapati	1. Harpur	10	—	10	—	—
		2. Sanirchar Kuthi	4	—	4	—	—
	Champan	3. Balurpat	—	—	—	1	1
		4. Bansmohan	20	—	20	2	2
		5. Basatpur	8	—	8	—	—
		6. Dharmuha	8	—	8	21	21
		7. Jhakra	2	—	2	—	—
		8. Rulai	2	—	2	—	—
Orissa	Puri	9. Basindapur	7	—	7	—	—
	Burdwan	Ketugram	1	—	1	—	—
Hooghly	Balagar	11. Badakachi	—	—	—	2	2
		12. Guptipara	—	—	—	1	1
	Chinsura	13. Keota Colony	—	—	—	1	1
		14. Taltalagh	—	1	1	—	—
Magra	Magra	15. Baikunthapur	—	—	—	9	28
		16. Basudevpur	—	3	3	2	42
		17. Tribeni	—	—	—	—	—

Table 7. Contd.

State	District	Police Station	Village	M i g r a t e d f r o m (D i s t r i c t)			
				Faridpur Unit type	Dacca Unit type	Barisal Unit type	Total
Bihar	Jagapati	Jagapati	1. Harpur	—	—	—	—
			2. Sanirchar Kuthi	—	—	—	—
			3. Balurpat	—	—	—	—
			4. Bansmohan	—	2	—	2
	Mathihar	Mathihar	5. Basatpur	—	—	—	—
			6. Dharmuha	—	—	—	—
			7. Jhakra	—	—	—	—
			8. Rulai	—	—	—	—
Orissa	Puri	Tungi	9. Basindapur	—	—	—	—
	Burdwan	Ketugram	10. Sataskuthipara	—	—	—	—
HOOGHLY	Balagar	Balagar	11. Badakachi	—	—	—	—
			12. Guptipara	—	—	—	—
	Chinsura	Chinsura	13. Keota Colony	—	—	—	—
			14. Taltalagh	—	—	—	—
WEST BENGAL	Magra	Magra	15. Baikunthapur	1	—	—	1
			16. Basudevpur	—	—	—	—
			17. Tribeni	—	—	—	—

Table 7. Contd.

State	District	Police Station	Village	M i g r a t e d f r o m (D i s t r i c t)			
				Howrah Unit type	Khulna Unit type	Grand total Total Salary Share	Total
Bihar	Jagapati	Jagapati	1. Harpur	—	—	—	10
			2. Sanirchar Kuthi	—	—	—	4
			3. Balurpat	—	—	—	1
			4. Bansmohan	—	—	—	25
	Mathihar	Mathihar	5. Basatpur	—	—	—	8
			6. Dharmuha	—	—	—	31
			7. Jhakra	—	—	—	2
			8. Rulai	—	—	—	2
Orissa	Puri	Tungi	9. Basindapur	—	—	—	7
	Burdwan	Ketugram	10. Sataskuthipara	—	—	—	1
HOOGHLY	Balagar	Balagar	11. Badakachi	—	—	—	2
			12. Guptipara	—	—	—	1
	Chinsura	Chinsura	13. Keota Colony	—	—	—	1
			14. Taltalagh	—	—	—	1
WEST BENGAL	Magra	Magra	15. Baikunthapur	—	—	—	1
			16. Basudevpur	—	—	—	2
			17. Tribeni	—	—	—	1

Table 7. Contd.

State	District	Police Station	Village	M i g r a t e d f r o m (D i s t r i c t)								
				Chittagong Unit type			Noakhali Unit type			Tripura Unit type		
				Salary	Share	Total	Salary	Share	Total	Salary	Share	Total
WEST BENGAL	Howrah	Sankrail	18. Jhorhat	—	—	—	—	—	—	—	—	—
			Hanskhali	1	—	1	—	—	—	—	—	—
			19. Govindapur	3	—	3	—	—	—	—	—	—
			20. Hanskhali	—	—	—	—	—	—	—	—	—
	Nadia	Kalyani	21. Majherchar	—	—	—	24	2	26	1	—	1
			Nakashipara	—	—	—	2	4	6	—	—	—
			22. Bethuadahari	—	—	—	—	—	—	—	—	—
		Bangaon	23. Helencha	1	—	1	—	—	—	—	—	—
	Twenty-four Parganas	Bijpur	24. Bagermore	4	—	4	—	—	—	—	—	—
			25. Kanchrapara	—	—	—	—	1	1	—	—	—
			26. Lichutala	—	—	—	—	—	—	—	—	—
			27. Sayadnagar	—	—	—	—	1	1	—	—	—
		Falta	28. Falta	—	—	—	—	1	1	—	—	—
			Kakdwip	—	—	—	—	—	—	—	—	—
			29. Amrabati	—	—	—	—	1	1	—	—	—
			30. Baliara	—	—	—	—	—	—	—	—	—
			Total	71	4	75	64	72	136	4	—	4

Table 7. Contd.

State	District	Police Station	Village	M i g r a t e d f r o m (D i s t r i c t)								
				Faridpur Unit type			Dacca Unit type			Barisal Unit type		
				Salary	Share	Total	Salary	Share	Total	Salary	Share	Total
WEST BENGAL	Howrah	Sankrail	18. Jhorhat	—	—	—	—	—	—	—	—	—
			Hanskhali	—	—	—	—	—	—	—	—	—
			19. Govindapur	—	—	—	—	—	—	—	—	—
			20. Hanskhali	—	—	—	—	—	—	—	—	—
	Nadia	Kalyani	21. Majherchar	1	—	1	—	—	—	1	—	1
			Nakashipara	—	—	—	—	—	—	—	—	—
			22. Bethuadahari	—	—	—	—	—	—	—	—	—
		Bangaon	23. Helencha	—	—	—	—	—	—	—	—	—
	Twenty-four Parganas	Bijpur	24. Bagermore	—	—	—	—	—	—	—	—	—
			25. Kanchrapara	—	—	—	—	—	—	—	—	—
			26. Lichutala	—	—	—	1	—	1	—	—	—
			27. Sayadnagar	—	—	—	—	—	—	—	—	—
		Falta	28. Falta	—	—	—	—	—	—	—	—	—
			29. Amrabati	—	—	—	—	—	—	—	—	—
		Kakdwip	30. Baliara	—	—	—	—	—	—	—	—	—
			Total	2	—	2	3	—	3	2	15	17

Table 7. Contd.

State	District	Police Station	Village	M i g r a t e d f r o m (D i s t r i c t)				Grand total				
				Howrah		Khulna		Total		Share		
				Salary	Unit type	Salary	Unit type	Salary	Unit type	Salary	Unit type	
Howrah	Sankrail	18. Jhorhat		1	—	1	—	—	1	—	1	
				—	—	—	—	—	—	—		
	Hanskhali	19. Govindapur 20. Hanskhali		—	—	—	—	—	1	—	1	
				—	—	—	—	—	3	—	3	
Nadia	Kalyani	21. Majherchar		—	—	—	—	—	27	2	29	
				—	—	—	—	—	2	4	6	
	Nakeshipara	22. Bethuadahari		—	—	—	—	—	—	—	1	
				—	—	—	—	—	—	—	—	
Twenty-four Parganas	Bangaon	23. Helencha		—	—	—	—	—	—	—	4	
				—	—	—	—	—	—	—	—	
	Bijpur	24. Bagermore 25. Kanchrapara 26. Lichutala 27. Sayadnagar		—	—	—	—	—	4	1	1	
				—	—	—	—	—	1	—	1	
				—	—	—	—	—	—	1	1	
				—	—	—	—	—	—	—	—	
	Falta	28. Falta		—	—	—	—	—	—	1	1	
				—	—	—	—	—	—	—	—	
	Kakdwip	29. Amrabati- 30. Baliara		1	—	1	—	—	1	—	1	
				—	—	—	—	—	—	—	—	
	Total			2	—	2	—	4	4	148	95	243

basis. The same feature is also noticed here. Incidentally, it may be noted here that although the three villages near Kakdwip are situated very close to the fishing ground of Bakkhali, none of them is on share basis. The fact is that these people are of Chittagong, and the people of Chittagong do not prefer to come on share basis.

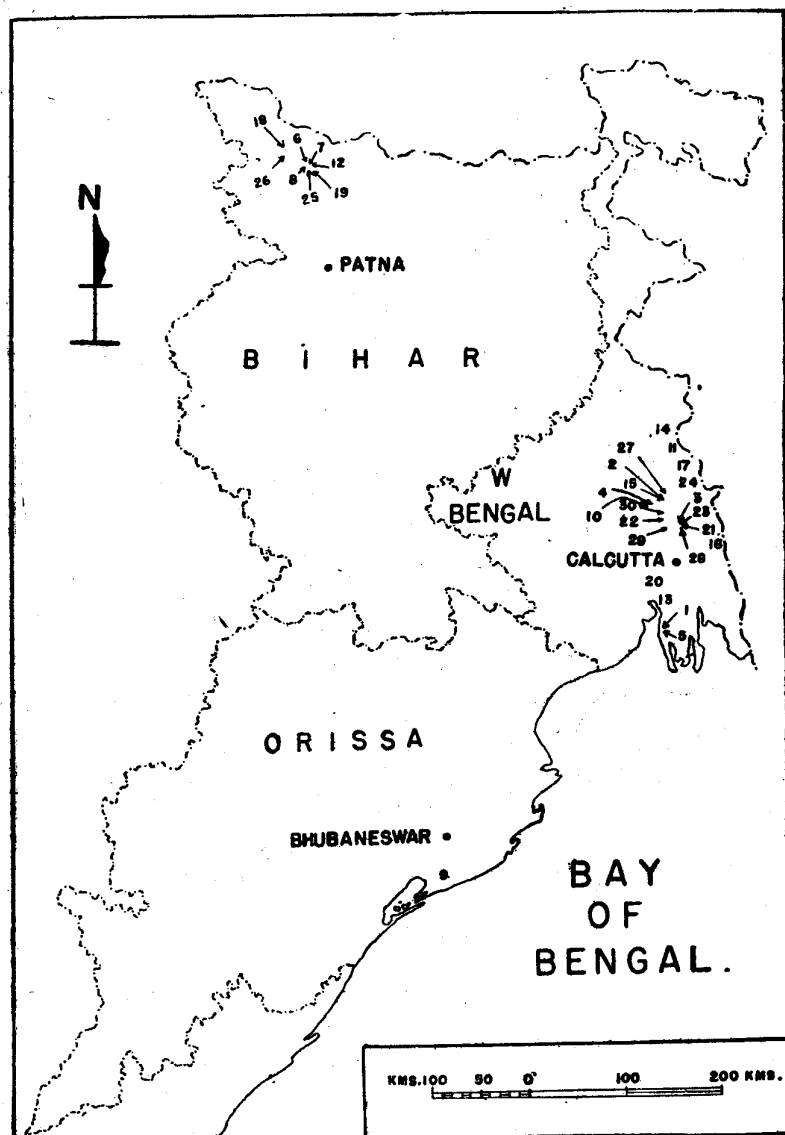
I. Village of unit members in relation to that of their respective bahardars

In a fishing unit, a large number of members is recruited for various purposes. The average strength of the unit is about 14.23 in Jambudwip.

It is not always possible to find the required number in a single village. So the bahardars have to recruit them from different villages with, of course, an eye to get as many as he can from his own or adjacent villages as will be evident from Table 8. The village bondage of the unit members is absolutely necessary for them to pull on in such a transient society where they have to stay for about four months, away from their families.

The following salient features are seen from Table 8.

- (1) The seventeen bahardars are from only four villages who have recruited their members from thirty different villages.
- (2) The bahardars always feel inclined to recruit their members from their own or adjacent villages. This feature is more dominant in case of shared units than that of the salaried. In ten salaried units, the members hail from as many as twentytwo villages in relation to three villages of their bahardars; whereas in the seven shared units, the members are only from eleven villages in relation to the two villages of their bahardars. This is for economic consideration. In case of salaried unit, the amount of salary is fixed. As such, there is no scope for exploiting or cheating the members. Further, in such units, there is a little likelihood for a great hitch among intra-unit members, as all are employees of the bahardar who is all in all. Every body has to obey his command. But in the shared units, as everybody has equal share in the profit or loss, the members would think twice before going in with an unknown bahardar or unknown villagers, for they have to pass many months in the fishing camp.



Map. 3. Villages of the unit members

References to Map 3

- | | |
|------------------|--------------------|
| 1. Amravati | 16. Halencha |
| 2. Badakachhi | 17. Hanskhali |
| 3. Bagermor | 18. Harpur |
| 4. Baikunthapur | 19. Jhakra |
| 5. Baliara | 20. Jhorhat |
| 6. Balurpat | 21. Kanchrapara |
| 7. Bansmohan | 22. Keotacolony |
| 8. Basatpur | 23. Lichhutala |
| 9. Basindapur | 24. Majherchar |
| 10. Basudevpur | 25. Rulai |
| 11. Bethuadahari | 26. Sanircharkuthi |
| 12. Dharmuha | 27. Sataskuthipara |
| 13. Falta | 28. Sayadnagar |
| 14. Govindapur | 29. Taltalaga |
| 15. Guptipara | 30. Tribeni. |

Table 8. *Village of bahardars in relation to other members of the unit*

Village of Bahardar	Village of other members of the unit (approximate distance in miles from the village of Bahardar)	Unit type		
		Salary	Share	Total
Bansmohan	Harpur (50)	5	—	5
"	Basatpur (3)	7	—	7
"	Dharmuha (4)	31	—	31
"	Shanirchar Kuthi (50)	3	—	3
"	Rulai (3)	2	—	2
"	Bansmohan (0)	19	—	19
"	Jhakra (2)	2	—	2
"	Helencha (400)	1	—	1
"	Jhorhat (385)	1	—	1
"	Amrabati (440)	1	—	1
"	Sataskuthipara (400)	1	—	1
Majherchar	Majherchar (0)	23	—	23
"	Hanskhali (20)	3	—	3
"	Bagermore (10)	1	—	1
"	Harpur (350)	5	—	5
"	Badakacchi (30)	2	—	2
"	Bashindapur (5)	7	—	7
"	Govindapur (80)	1	—	1
"	Balurpat (350)	1	—	1
"	Guptipara (35)	1	—	1
"	Bethuadahari (50)	2	—	2
"	Sanircharkuthi (350)	1	—	1
Baikunthapur	Basudevpur (1)	2	14	16
"	Baikunthapur (0)	10	9	19
"	Basatpur (350)	1	—	1
"	Bansmohan (350)	1	—	1
"	Bagermore (4)	3	—	3
"	Lichhutala (4)	1	—	1
"	Sayadnagar (8)	—	1	1
Basudevpur	Basudevpur (0)	—	40	40
"	Baikunthapur (1)	—	12	12
"	Bethuadahari (60)	—	4	4
"	Kanchapara (4)	—	1	1
"	Phalta (60)	—	1	1
"	Taltalaga (14)	—	1	1
"	Keota Colony (6)	—	1	1
"	Majherchar (4)	—	2	2
"	Baliara (140)	—	1	1
"	Tribeni (1½)	—	1	1
Total		138	88	226*

*The seventeen bahardars of seventeen units are not included.

Working under an unknown bahardar in a shared unit they would have to live in perpetual anxiety lest they are deprived of their due share by the bahardar. It seems probable that these considerations come into play in the shared units which are more closely village oriented than in the salaried ones.

- (3) In case there is a bahardar in his village, a member hardly goes with another of a different village. There are only three exceptions—one from Bansmohan and two others from Majherchar. They have gone with the bahardars of villages other than their own, although there are bahardars in their own villages. It may be noted that on further scrutiny it was found that all of them decided to go for marine fishing late when their village bahardars had already recruited their personnel.

J. Kin relationship of the unit members

In the previous section it has been found that in the composition of the fishing unit, there is a strong tendency to compose it on village basis. Now, let me see to what extent it is also based on kin relationship both within a unit and between the unit members.

To show the intra-unit kin relationship, the seventeen fishing units have been represented separately, and a diagrammatic representation has been made (Fig. 7). These it is seen that diverse types of kinship bondage, both affinal and consanguinal, are working within the fishing units. Kin ties are stronger in case of shared units than in the salaried ones. The extent of kin relationship has also been shown in Table 9.

About 60% of the total individuals of the shared units have at least one genealogically related kin in his unit; whereas in the salaried units this feature is found in about 42% cases. There is of course, some overlappings, e.g. one father might be a brother of another, and so on. The extension of their kin ties is not limited within their own fishing unit only, but many of them have its extension to other units, too, as will be evident from Fig. 8 showing inter-unit kin relationship. Further, it is seen that the close agnatic kins, like father, brother, etc., are mostly met within the same unit, and the distant kins are spread out in other units. In addition to these, there is one ceremonial kin in the salaried and two in the shared units.

References to Figures 7A, 7B and 8

Roman numeral	= Unit number
Arabic numeral within circle	= Individual number
Bar between two individuals	= Kin relation
Arabic numeral by the side of bar (1-25)	= Type of Kin relationship like :
1. Fa — So	14. Wi Si Hu — Wi Si Hu
2. Si Hu — Wi Br	15. Br Da Hu — Wi Fa Br
3. Da Hu — Wi Fa	16. Fa Br So — Fa Br So
4. Da So — Mo Fa	17. Si Da Hu — Wi Mo Br
5. Fa Br Da Hu—Wi Fa Br So	18. Mo So — Mo Si So
6. Br — Br	19. Friend — Friend (ceremonial)
7. Fa Si Da So—Mo Mo Br So	20. Mo — So
8. Mo Br — Si So	21. Mo Fa Br So — Fa Si Da So
9. Fa Si So — Mo Br So	22. Si So — Mo Br (ceremonial)
10. Fa Br — Br So	23. Wi Fa Si Hu—Wi Br Da Hu
11. Da Hu Br — Br Wi Fa	24. Fa Fa Br So — Fa Br So So
12. Wi Si So — Mo Si Hu	
13. Br — Br (ceremonial)	
25. Fa Fa Fa Br So So So — Fa Fa Fa Br So So So	

Salaried unit

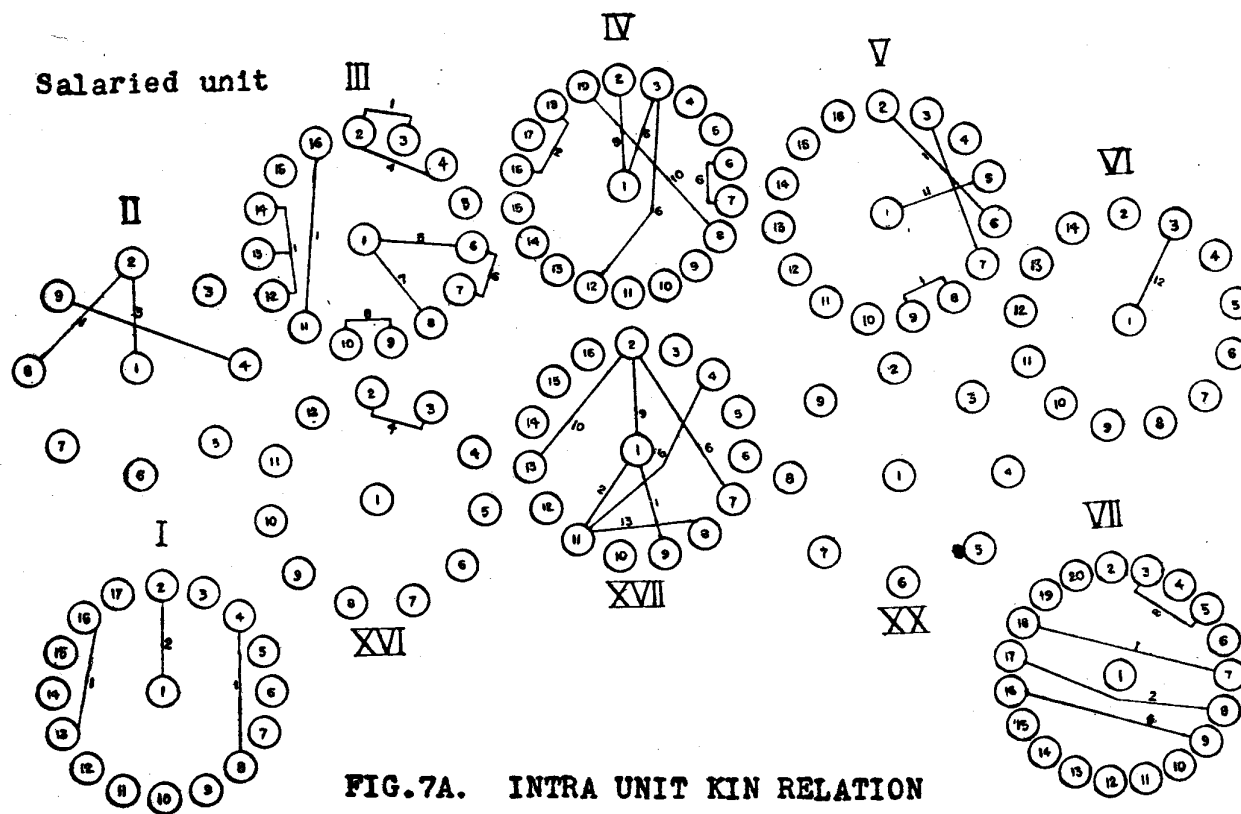


FIG.7A. INTRA UNIT KIN RELATION

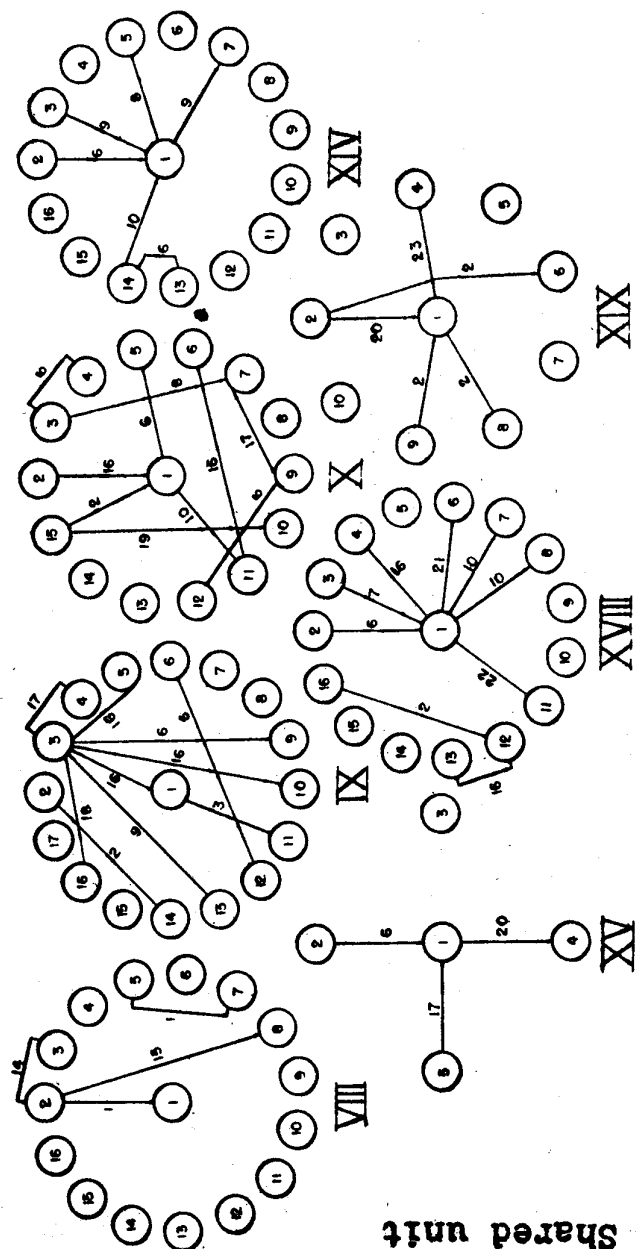


FIG.7B. INTRA UNIT KIN RELATION

Table 9. Kin relationship in fishing units*

Kin relationship	Shared unit		Salaried unit		Total
	Same unit	Other unit	Same unit	Other unit	
Fa—So	2	—	13	1	16
Si Hu—Wi Br	6	4	4	3	17
Da Hu—Wi Fa	1	1	1	1	4
Da So—Mo Fa	—	—	2	—	2
Fa Br Da Hu—Wi Fa Br So	—	1	1	—	2
Br—Br	9	3	6	5	23
Fa Si Da So—Mo Mo Br So	1	—	—	—	1
Mo Br—Si So	2	1	2	—	5
Fa Si So—Mo Br So	3	—	2	—	5
Fa Br—Br So	5	—	2	1	8
Da Hu Br—Br Wi Fa	—	1	1	—	2
Wi si So—Mo Si Hu	—	1	1	—	2
Wi Si Hu—Wi Si Hu	1	2	—	—	3
Br Da Hu—Wi Fa Br	2	—	—	—	2
Fa Br So—Fa Br So	7	—	—	1	8
Si Da Hu—Wi Mo Br	3	3	—	—	6
Mo Si So—Mo Si So	1	—	—	—	1
Mo—So	1	—	—	—	1
Mo Fa Br So—Fa Si Da So	1	—	1	—	2
Wi Fa Si Hu—Wi Br Da Hu	1	—	—	—	1
Fa Fa Br So—Fa Br So So	—	—	—	1	1
Fa Fa Fa Br So So So— Fa Fa Fa Br So So So	—	2	—	—	2
Total	46	19	36	13	114

N.B. Ceremonial kin relations are not included.

*Abbreviation of kin terms is after Murdock (1966).

Fig. 8 shows the inter-unit kin relationship. Further, it is seen that the close agnatic kins, like father, brother, etc., are mostly met within the same unit, and the distant kins are spread out in other units. In addition to these, there is one ceremonial kin in the salaried and two in the shared units.

What seems to be important here is that in the fishing ground,

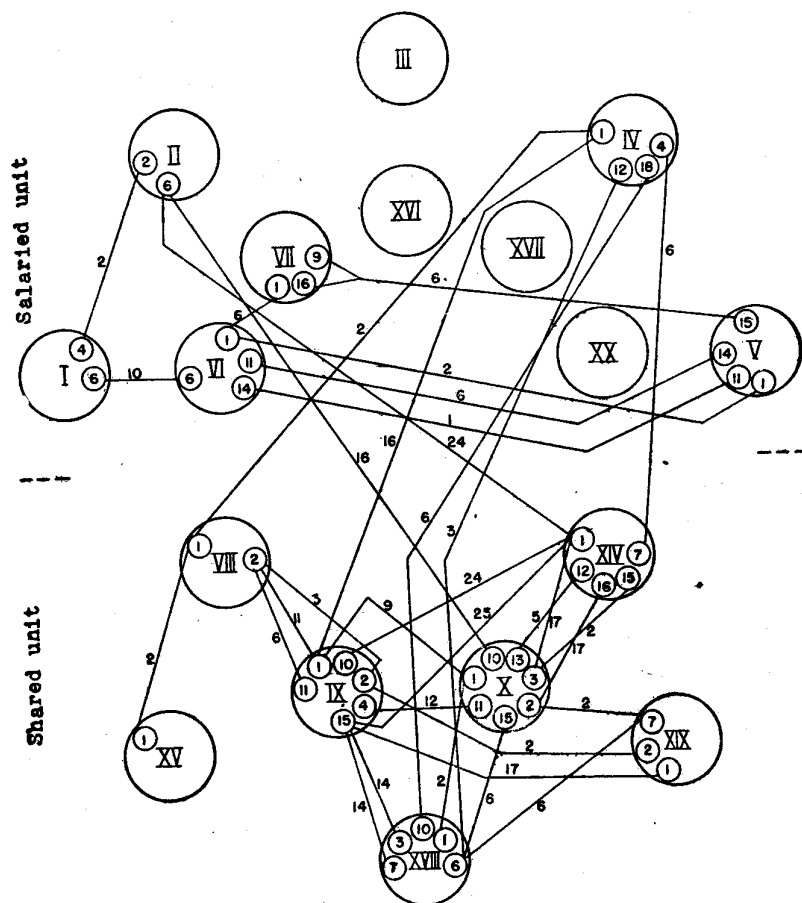


FIG. 8. INTER UNIT KIN RELATION

they cannot pull on for four or five months only on the basis of economic activity. In such a unit consisting of kinsmen, they can, to some extent, satisfy their urge for family life. Mention may be made here of an exceptional case in which an individual, whose father is in Jambudwip, has gone to another fishing ground (Bakkhali). This urge for forming kin groups in transient camp life may be compared with those of the nomadic Birhors. They also have some changes in the household units in their temporary settlement. But in every case, the members are linked by a network of kinship ties (Sen 1965 : 49).

Thus, it is seen that the bondage of kin relationship, in addition to their village bondage, helps the fishing unit to develop a cohesive moral order.

K. Age group distribution and its role in the fishing unit

In the fishing camp, different persons are engaged in different types of work. The division of labour is clearer in case of salaried units than in the shared ones, for, in the latter type of units, profit and loss concern everybody, and so everybody takes active interest in every sphere of work. Here, for the sake of convenience, the role of the members in the unit has been divided into three broad categories, viz., on boat, on land, and on both boat and land. Those who are on boat have to work very hard with considerable skill and have to face the hazards of the sea. Naturally, the minors and the old are not engaged in that type of work. But on land, hard work or quick decision is not necessary. There, a sort of routine work serves the purpose.

From Table 10 the following salient features are observed :

- (1) In the fishing unit, the majority of the members are in the age group of 20-44.
- (2) For the work on boat, the majority of the members are between 25 and 29, i.e., the minor and the aged are excluded, but the members on the land belong to different age groups.
- (3) The minor and the aged are proportionately less in shared units. This is for the fact that whoever enters in a shared unit, gets an equal share ; of course, the minors (10-14) are sometimes given half or one-fourth of the share. So the adult participants never encourage minors to accompany them. But under unavoidable circumstances, sometimes they are also included, particularly if he is a minor son of the bahardar who wants to take him in his fishing unit for

occupational socialisation. On the contrary, the bahardar of the salaried unit tries to pick up some minors for light work in the fishing camp for the following reasons, *viz.*

- i) The expense after food and salary for the minors will be less.
 - ii) The minors hardly accompany alone with any of the fishing units. They go with some of their close kins, like father, brother, etc. Now, by taking the minors in the fishing unit, they get an opportunity to get their children or brothers trained in the art of fishing. The minors are thus socialised in that respect.
- (4) The average size of the seventeen fishing units is about 14.23 individuals. But the average size of the ten salaried units is slightly higher (14.80) than that of the seven shared units (13.57). This difference is but what is expected. It is to the interest of the members including the bahardar of a shared unit to manage the whole business with lesser number of individuals as that would bring them greater benefit out of the net profit.
- (5) About half of the total strength of a fishing unit is solely engaged in work on the boat. As the entire profit and loss of the fishing unit depends on the efficiency of the persons engaged on the boat, so at least the minimum working hands are always supplied there to keep a close watch on the net set for operation. On some lunar days, a slight delay in removing the catch from the net may mean total loss of the haul. Selection of individuals should be so made that they form a happy company with the majhi—friendly and co-operative—gossiping and singing at times to relieve the monotony and arduousness of the heavy duty. As a matter of fact, the majhi always wants more hands on the boat to stay on with him. It varies between five and seven.

L. Salary of the unit members

The salary of the members are fixed for the full fishing season. Besides the salary, they are provided with free food from the day they report for the duty to the bahardar till their release. At the time of their departure from their natal villages, they are provided with some advance money for the maintenance of their families besides the *baynar taka* (advance money) which is given to each individual at the time of finalising the contract. In addition to these, they are always allowed to take contingent advances as pocket ex-

penses during their stay in the fishing camp. A full account of these is kept by the khuntir majhi, and the balance of the salary is paid at the time of releasing the members when the fishing season terminates.

But in the case of the shared unit, as the amount is not fixed, responsibility of the bahardar is much more. He takes upon himself the responsibility of maintaining the families of his members when they are away in the fishing camp. This is, no doubt, an additional

Table 10. Role in the fishing unit and age group distribution

O n B o a t						
Age group (in years)	Salaried		Shared		Total	
	No.	%	No.	%	No.	%
10 - 14	—	—	—	—	—	—
15 - 19	—	—	3	6.5	3	2.6
20 - 24	4	5.7	4	8.7	8	6.9
25 - 29	19	27.1	13	28.3	32	27.8
30 - 34	11	15.7	7	15.2	18	15.5
35 - 39	11	15.7	10	21.7	21	18.1
40 - 44	13	18.6	6	13.0	19	16.4
45 - 49	7	10.0	2	4.4	9	7.8
50 - 54	3	4.3	—	—	3	2.6
55 - 59	1	1.4	1	2.2	2	1.7
60 - 64	1	1.4	—	—	1	0.9
65 - 69	—	—	—	—	—	—
70 - 74	—	—	—	—	—	—
Total	70		46		116	

O n L a n d						
Age group (in years)	Salaried		Shared		Total	
	No.	%	No.	%	No.	%
10 - 14	17	28.8	5	16.1	22	24.4
15 - 19	10	16.9	8	25.8	18	20.0
20 - 24	2	3.4	3	9.7	5	5.6
25 - 29	2	3.4	1	3.2	3	3.3
30 - 34	2	3.4	—	—	2	2.2
35 - 39	5	8.5	2	6.5	7	7.8
40 - 44	3	5.1	2	6.5	5	5.7
45 - 49	3	5.1	2	6.5	5	5.7
50 - 54	4	6.8	2	6.5	6	6.7
55 - 59	5	8.5	3	9.7	8	8.9
60 - 64	3	5.1	3	9.7	6	6.7
65 - 69	2	3.4	—	—	2	2.2
70 - 74	1	1.7	—	—	1	1.1
Total	59		31		90	

Table 10 Contd.

Age group (in years)	On Both Land and Boat				Total	
	Salaried No.	%	Shared No.	%		
10 - 14	—	—	—	—	—	—
15 - 19	1	5.3	3	16.7	4	10.8
20 - 24	1	5.3	1	5.7	2	5.4
25 - 29	2	10.5	2	11.1	4	10.8
30 - 34	3	15.8	5	27.8	8	21.6
35 - 39	4	21.1	3	16.7	7	18.9
40 - 44	2	10.5	2	11.1	4	10.8
45 - 49	1	5.3	1	5.7	2	5.4
50 - 54	—	—	—	—	—	—
55 - 59	—	—	—	—	—	—
60 - 64	3	15.8	1	5.7	4	10.8
65 - 69	2	10.8	—	—	2	5.4
70 - 74	—	—	—	—	—	—
Total	19		18		37	

T o t a l

Age group (in years)	Salaried		Shared		Total	
	No.	%	No.	%		
10 - 14	17	11.5	5	5.3	22	9.1
15 - 19	11	7.4	14	14.7	25	10.3
20 - 24	7	4.7	8	8.4	15	6.2
25 - 29	23	15.5	16	16.8	39	16.1
30 - 34	16	10.8	12	12.6	28	11.5
35 - 39	20	13.5	15	15.8	35	14.4
40 - 44	18	12.2	10	10.5	28	11.5
45 - 49	11	7.4	5	5.3	16	6.6
50 - 54	7	4.7	2	2.1	9	3.7
55 - 59	6	4.1	4	4.2	10	4.1
60 - 64	7	4.7	4	4.2	11	4.5
65 - 69	4	2.7	—	—	4	1.6
70 - 74	1	0.7	—	—	1	0.4
Total	148		95		243	

risk, for nobody is sure about the profit or loss that may come up at the close of the fishing season. It may sometimes happen that in a shared unit, one or two members are recruited on salary basis. Under such circumstances, their salary is included within the total cost, and the rest of the amount is distributed among the other members.

The salary of the members varies from Rs 15—Rs 500 for the entire season. It varies according to their role in the fishing unit as shown in Table 11.

Table 11. *Salary and role in the fishing unit*

Role in the fishing unit	Range of salary (in rupees)	Average (in rupees)
On boat	100-500	249.91
On land	15-350	117.39
On both land and boat	160-300	230.00
Total	15-500	194.47

N.B Besides these, there are nine individuals on boat and eleven on land whose salaries were not settled at the time of recruitment. They were given an understanding that they will be remunerated according to their efficiency.

It is seen that those who work on the boat, get a higher salary than those who are on land or on both land and boat. Those who are on boat have to work hard and to face the hazards of the sea. The success of the fishing unit also largely depends on them. Hence, it is obvious that they are always better paid.

M. *Temporary character of the unit structure*

The members of the fishing unit, either on share or salary basis, are recruited for one fishing season only, i.e. from October to February. They have no obligation to join the same unit the next season. The members are found to change their bahardars quite often in different seasons. (Table 12). To make the table clear it is better to cite one example from it. In row 4 (Table 12), there are 33 individuals (16 in shared and 17 in salaried units). 16 individuals of the shared and 17 individuals of the salaried units have given a total service period of 64 years (16×4 yrs) and 68 years (17×4 yrs) respectively in two different types of units. Now, 64 service years of the shared units have been splitted up thus—32 changes (71.1%) of

Table 12. *Temporary character*

Period of service (in years)	Unit type	No. of indi- vidual	Total period of service (in years)	Continuous service in the									
				1		2		3		4		5	
				No.	%	No.	%	No.	%	No.	%	No.	%
1	Shared	9	9	9	100.0	—	—	—	—	—	—	—	—
	Salaried	34	34	34	100.0	—	—	—	—	—	—	—	—
2	Shared	8	16	8	66.7	4	33.3	—	—	—	—	—	—
	Salaried	17	34	26	86.7	4	13.3	—	—	—	—	—	—
3	Shared	11	33	20	76.9	5	19.2	1	3.9	—	—	—	—
	Salaried	30	90	64	83.1	13	16.9	—	—	—	—	—	—
4	Shared	16	64	32	71.1	7	15.6	6	13.3	—	—	—	—
	Salaried	17	68	40	76.9	8	15.4	4	7.7	—	—	—	—
5	Shared	15	75	23	53.5	11	25.6	6	13.9	3	7.0	—	—
	Salaried	8	40	28	87.5	1	3.1	2	6.3	1	3.1	—	—
6	Shared	8	48	21	65.6	7	21.9	3	9.4	1	3.1	—	—
	Salaried	11	66	28	68.3	7	17.1	3	7.3	1	2.4	1	2.4
7	Shared	8	56	12	44.4	8	29.6	2	7.4	4	14.8	—	—
	Salaried	11	77	19	52.8	7	19.4	2	5.6	5	13.9	—	—
8	Shared	7	56	13	48.2	6	22.2	6	22.2	—	—	—	—
	Salaried	10	80	23	56.1	8	19.5	3	7.3	6	14.6	—	—
9	Shared	7	63	9	39.1	5	21.7	3	13.0	2	8.7	1	4.4
	Salaried	5	45	4	40.0	1	10.0	1	10.0	—	—	—	—
10	Shared	3	30	13	65.0	6	30.0	—	—	—	—	1	5.0
	Salaried	2	20	—	—	—	—	—	—	—	—	—	—
11	Shared	1	11	6	75.0	1	12.5	1	12.5	—	—	—	—
	Salaried	2	22	3	33.3	4	44.4	—	—	1	11.1	—	—
12	Shared	2	24	—	—	—	—	—	—	—	—	—	—
	Salaried	1	12	5	62.5	2	25.0	1	12.5	—	—	—	—

of the unit structure

s a m e u n i t (i n y e a r s)												Total No. of changes of unit		
6		7		8		9		10		11			12	
No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	8
—	—	—	—	—	—	—	—	—	—	—	—	—	—	34
—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
—	—	—	—	—	—	—	—	—	—	—	—	—	—	36
—	—	—	—	—	—	—	—	—	—	—	—	—	—	26
—	—	—	—	—	—	—	—	—	—	—	—	—	—	47
—	—	—	—	—	—	—	—	—	—	—	—	—	—	45
—	—	—	—	—	—	—	—	—	—	—	—	—	—	43
—	—	—	—	—	—	—	—	—	—	—	—	—	—	44
—	—	—	—	—	—	—	—	—	—	—	—	—	—	41
1	2.4	—	—	—	—	—	—	—	—	—	—	—	—	42
1	3.7	—	—	—	—	—	—	—	—	—	—	—	—	43
3	8.3	—	—	—	—	—	—	—	—	—	—	—	—	44
1	3.7	1	3.7	—	—	—	—	—	—	—	—	—	—	45
—	—	—	—	1	2.4	—	—	—	—	—	—	—	—	46
—	—	2	8.7	1	4.4	—	—	—	—	—	—	—	—	47
—	—	—	—	—	—	4	40.0	—	—	—	—	—	—	48
—	—	—	—	—	—	—	—	—	—	—	—	—	—	49
—	—	—	—	—	—	—	—	2	100.0	—	—	—	—	50
—	—	—	—	—	—	—	—	—	—	—	—	—	—	51
—	—	1	11.1	—	—	—	—	—	—	—	—	—	—	52
—	—	—	—	—	—	—	—	—	—	—	—	2	100.0	53

units have taken place after serving 1 year and gives $32 \times 1 \text{ yr} = 32 \text{ yrs}$; 7 changes (15.6%) of units have taken place after serving continuously in the same unit for 2 years and gives $7 \times 2 \text{ yrs} = 14 \text{ yrs}$ and 6 changes (13.3%) of units have taken place after serving continuously in the same unit for 3 years and gives $6 \times 3 \text{ yrs} = 18 \text{ yrs}$. The total period of service thus comes to 64 years ($32 \text{ yrs} + 14 \text{ yrs} + 18 \text{ yrs}$) which has been splitted up in varying degrees of continuous service in the same unit as shown above.

The rate of change of the unit is more perceptible in case of the salaried units than that of the shared ones as shown. It is for this fact that in a shared unit the understanding between the members is more essential to run a joint enterprise. Continuous participation in the same unit develops such cohesion besides their village and kin bondage. As a matter of fact, generally when one changes the unit, he takes with him his near kin, like brother or son to the unit he joins. Moreover, the fishing units are established side by side in Jambudwip. Thus even the change of the unit can hardly disturb the kin bondage and the cohesion of the unit members.

The temporary character of the unit structure has also been observed by Firth (1946:114). In studying the net group of the Malay fisherfolk he asserted that "When disagreement occurs there is little attempt to smooth things over and make adjustment----". Further, he observed that "Other social ties, as of kinship, do not operate to any great degree as shock absorbers tending to take the strain of economic difficulties." But in Jambudwip, as the fisherfolk are away from their families, much attempt is made to smooth things over and make adjustment among themselves when disagreement occurs.

DISCUSSION

From what has been said above it appears that there is a underlying order in the seeming chaos in the fishing camps. As one probes into the organization, it becomes clear that the fisherfolk recruited from different villages and families very ably and fruitfully organise themselves into well disciplined fishing units so that they can maintain a moral order in a transient community living away from the natal villages during the entire period of fishing season. Keeping this in view, the members of a prospective unit carefully scrutinize

the reputation of the prospective bahardars and their co-workers before joining any unit.

With the initiative of some enterprising and energetic young men, new fishing units crop up under the leadership of different bahardars in order to fulfil their inherent urge for power and leadership, social prestige and economic stability.

In recruiting the personnel for both the types of the fishing units, shared or salaried, the underlying principle of maintaining a moral order in the fishing camps seems to play the vital role. Thus it is seen that the fishing units are much based on caste, village, and kin. All these factors greatly help in healing the feeling of isolation in a transient camp life far away from natal villages. Kinship considerations are more to be found in case of shared units than in the salaried ones. Perhaps, because the profit and loss would affect everybody in the shared unit uniformly, there is great need for understanding between the members of such units to run a joint enterprise.

A feature of great significance is that in recent years there is a tendency to drift from tradition bound shared units to salaried ones. With the increase of members in a unit it becomes difficult for the bahardar to run such unit profitably as a joint endeavour under shared system. As a matter of fact, since the last one or two years there has been a tendency for the bahardar to enlarge their units for maximising profit.

In allocating the specific roles in the fishing units, both age and efficiency are considered, and salary is directly related to the type of work done by an individual. Those who are directly involved in the working of the net in the boat are better paid. Their occupational hazards and risk of lives are somewhat compensated by the extra money. An expert majhi has a great temptation to show his skill as an expert in fishing in spite of many occupational hazards. So he is not satisfied so long as he is not attending the net in the open sea.

An analysis of the composition, organisation, and the working principle of the two types of fishing units, indicates that the shared units operate as a cohesive social unit sharing common sentiments, whereas the salaried units are more contractual in character operating strictly under the authoritative supervision of the bahardar for maximising profit.

FISHERMEN'S KNOWLEDGE OF THE IMMEDIATE ENVIRONMENT

In this chapter, an attempt has been made to describe the knowledge of the fisherfolk of their immediate and relevant environment. There is no doubt that in this culture bound lore or 'inside view' (Redfield 1955 : 81) of the fisherfolk there is certain arbitrary conscience which is not strictly empirical in import. Yet my general observation has been that their knowledge of the environment contains a good deal of *ad hoc* empirical and inductive reasoning which is comparable with Gladwin's study of the Truk navigators (Gladwin 1964 ; See also Bateson 1942, 1958).

The immediate environment of the marine fisherfolk is the sea and the marine fish, in addition to other natural phenomena. As a result of their long association, the fisherfolk have developed a keen knowledge of all these. It is very profitably utilised for successful hauling of fish and to save their lives.

The present chapter is divided into the following sections :

- A. Topography of the sea bed.
- B. Judgement regarding sea water.
- C. Types of fish and their behaviour.
- D. Sequence of tide and ebb.
- E. Ascertaining time and direction.

It will be seen how the co-ordination of all these becomes indispensable for the fisherfolk to lead a life in the sea and how that becomes a part of their cultural milieu.

The following account is based on the verbal narrations of the fisherfolk themselves and also on the basis of direct observation of their behaviour.

A. Topography of the sea bed

The fisherfolk have to judge the topography of the sea bed very minutely. It is essential for setting the huge nets, as it is not possible to set the net at each and every place at random, and even if it were possible to do so, good catch would not follow. Soil conditions of the sea bed and the route of the movement of the shoal of fish are the two major considerations for the selection of the site for setting the net. From experience they have come to know that the soil condition of the sea bed and the depth of the sea are not uniform in all places. For their convenience, they have classified it as shown in the Fig. 9.

There are two broad types of soil in the sea, viz.,

- (1) *Baila mati* (sandy soil) : In this type of soil, the proportion of the sand is more than 50%. So it lacks stickiness. As the nets are set in along with two wooden posts vertically planted in the bed of the sea, they cannot be firmly fixed in the loose type of sandy soil. Moreover, good quality fish are generally lacking in water above this type of soil. The fisherfolk, therefore, avoid areas with this type of bed soil.

- (2) *Aithal mati* (also known as *lodh*) : This type of soil is sticky and black in colour and is found near the *khari* (Fig. 10) where the depth of water is relatively more. Because of the stickiness of the soil, vertical wooden posts of the net may be conveniently planted in this type of soil. Such soil can hold the posts resisting the strong current of the sea.

The topography of the sea bed is undulating as shown in Fig. 9.

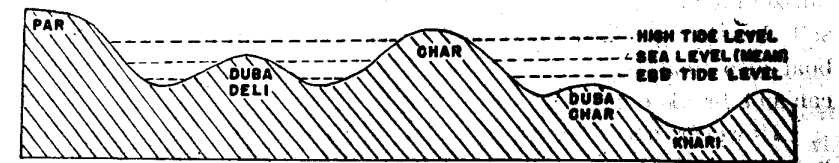


FIG.9. TOPOGRAPHY OF THE SHELF

The depth of the sea gradually increases from the shore. In some places, the bed of the sea rises above the sea level, and it is known as *char*. The *char* is not flooded even during the highest tidal period. Besides this, in some places the water is very shallow. Such areas, known as *duba char*, become submerged during high tide. Owing to silt deposition the height of *duba char* gradually increases. When it becomes visible, about half or two-third, during extremely low ebb period, it is known as *duba deli*. In course of time, this *duba deli* becomes a fully developed *char* having further silt deposition. For these *char*, *duba char* and other undulations of the bed, the current is also not uniform in all places. To the fisherfolk, the current of water, the type of breaks in the sea and the colour of water are indications to judge the depth of the sea. From experience they have learnt that the current of the surface water is stronger in shallow water, and it gives rise to a number of breaks (*gair*) on the surface. The nature of the breaks is also different in shallow water. There the upper ridges of these breaks are not continuous, but broken in nature.

The fisherfolk have different nomenclature for different types of waves. The mid sea, according to them, is *bair kari* and that near the shore is known as *kul kari*. The big waves that occur in the mid-sea are known as *mauja*. Plying of boats becomes disastrous if such waves dash against them sidewise. To face such waves, the steerer of the boat, therefore, keeps his boat perfectly straight in a line with the movement of such waves.

It is worth mentioning here that during stormy weather, when the sea is much disturbed, the use of the sail in a small country boat becomes a must to save the boat from disaster, no matter if it follows the destination or not. What seems to be significant here is that by the inductive principle of tackling the situation the fisherfolk have come to know that with the use of sail the waves can seldom break over the boat. Under such circumstances, the sail is fitted on in such a way by decreasing the vertical length of it that it can form a pouch to accommodate more wind to facilitate upward thrust instead of much horizontal one. It may be due to the fact that with the use of the sail the strong wind gives continuous upward thrust, and thus the boat also floats lightly over the waves; hence, the waves generally can not break over it.

However, according to them, in the mid-sea the flow of water is not disturbed for its depth by the bed surface. So the upper ridges of such waves are continuous. Again, such waves occur because of the current of water and flow of wind. But generally the mid-sea is calm (*niral*). The most dangerous waves for the boatmen are the *alki*. These waves suddenly come up from below, like boiling water, covering a pretty wide area. Any boat falling within that area faces disaster. The danger in such waves is that these cannot be surmised beforehand. But some areas, known to them from experience, are notorious for such waves. They try to avoid those areas or ply their boats very cautiously, and ritual offerings are made in such areas as has been pointed out in Chapter Six.

It is said that waves occur as a result of various undercurrents (*duba srot* or *chora srot*). Small waves on the water surface are known as *gair*. Near the shore, or in shallow water, the upper ridges of the waves are broken. It is known as *matha-bhanga gair*.

It seems paradoxical that although the fisherfolk explain the characteristics of different types of breaks in the sea in terms of rational specification of the material factors, they also pay due deference to the whims of the deity Ganga (presiding deity of the sea) as an agent in causing natural calamities.

The khari of the sea is most important to the fisherfolk as they set their net in that area. So the nature of the khari is very thoroughly studied by them—its soil, undulation, etc. The cross section of khari is broadly shown in the Fig. 10.

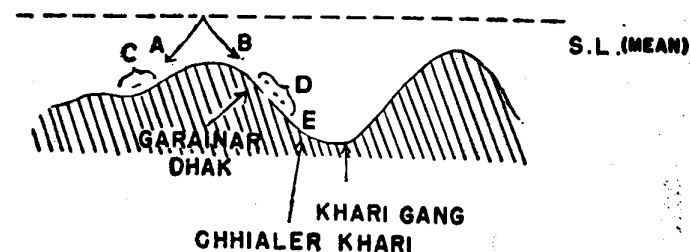


FIG.10. KHARI TOPOGRAPHY

The entire khari area is generally covered with thick aithal mati. No doubt, it tends to be flat with some undulations here and there. The continuous flow of the current desolves itself into different channels (Fig. 10 : A, B) according to the topography of the khari. When it dashes against any higher ridge (*garaina*), it breaks into two (A and B) which is known as *garainar gair* (i.e. breaks of higher ridge). Decomposed wooden particles (Fig. 10 : C, D), carried over by *garainar gair*, are temporarily deposited in the comparatively flat area which is known as *garainar dhak*, a little below is the *khari gang* (Fig. 10 : F). These decomposed wooden particles are *adhar* (food) of the fish. In *khari gang*, the current is extremely strong. So it is not possible to set the net over there. Moreover, *machher dhak* (the shoal of fish) cannot withstand such strong current. So they are pushed to either sides of it. It is known as *chhialer khari* (Fig.10 : E), i.e. where the movement of fish takes place. Therefore, they can easily get their food from *garainar dhak*. So the ideal place for setting the net is in *chhialer khari*.

In their choice of appropriate sea bed, the fisherfolk are like the agriculturists who tend to classify the soil according to its relative fertility and the types of crops grown.

B. Judgements regarding sea water

The colour of the sea water is not uniform in all places, and the types of fish also, in general, are said to vary accordingly. The

colour varies according to the depth and chemical contents of the sea water. In some places, the colour of water is like that of *dab-jal* (*dab* means green coconut and *jal* means water). This water is not of much importance to the fisherfolk.

But in some places the sea water looks like the juice of mango-steen (reddish in colour) in the month of *Agrahayan* (November-December) or *Paus* (December-January) during 6th to 9th lunar day when the current is low. Hence, it is known as *gab-jal* (*gab* means mangosteen). In this type of water *med*, *bhetki*, *bhola*, *kaia-bhola* and *lakshya* (*silang*) fish are generally found.

The blue water (*nila jal*) is of great importance to the fisherfolk. In some places of the blue water, sparkling lights are seen in the night owing to its phosphorus content in the water. This type of water is known as *juni-bhanga jal* (water which glows like fire flies). In this type of water all types of fish are found in plenty. *Domla*, *rupapati*, *phesa*, *hilsa*, etc., and other good quality fish abound in this type of water. In simple blue water, *rupapati*, *chhuri*, *kekle* (large variety of *chhuri*), *phesa*, *bhola*, *hilsa*, etc., are found. Generally, small fish do not move with these types of big fish. Different types of fish move separately. *Juni-bhanga jal* is heavier (*gara*) than any other water in the sea. Again, this water gives a fishy smell and looks like *machh-dhoa jal* (fresh fish-washed water). It is not invariable that this water will give fishy smell. But if the shoal of fish moves in that water, it will invariably let out a fishy smell. With this indication the fisherfolk can judge the route of the movement of the shoal of fish. Besides this general indication, they know that where the shark (*hangar*) moves, some oily substance can be seen floating on the surface of such water. The sharks are found in large numbers to float on the surface of the water when the southern wind begins to blow. Further, it is said that most of the unscaled fish like *med*, *tangra*, *pangas*, *simul*, *silang*, etc., release more oily substance from their body than the other scaled fishes. The types of oil released by each of them also vary and can be detected by an expert *majhi* (steerer). The presence of crocodiles gives some fleshy smell. Along the route of the movement of shele fish, some greasy particles (*lodh*) are seen in water. The shoal of *hilsa* fish covers a wide area. In the route of their movement some pinkish oily substance (*lala*) can be seen on the surface of the water. Moreover, as the *hilsa* fish moves in large numbers in different layers, the water becomes very much disturbed (*phot kata*), and even a sound can be heard.

C. Types of fish and their behaviour

Various types of fish are hauled in net. The fisherfolk have very minutely observed the subtle differences of all the varieties which would escape the notice of a lay man. This is due to their close association with them for a long time. To differentiate the varieties of fish of the same species, different names are given to each one of them, just as a peasant of any rice growing area can differentiate the varieties of paddy of his area and names them accordingly. For example, shrimps (*chingri*) has got at least seven varieties, viz. *rangi*, *ghughu*, *lali*, *chamne*, *haldi*, etc.

The types of fish caught also vary according to months, as shown in Table 13.

Table 13. Month and major types of fish

Month	Major types of fish
Kartik-Agrahayan (October-December)	Bomla, pata
Paus (December-January)	Chhuri, tellapri, sila (bhola)
Magh (January-February)	Kekle (big chhuri) Med, Kai-bhola, sila bhetki

The fisherfolk report that besides monthwise variation of fish, the type also varies according to the lunar day (tithi), i.e. according to the rate of water flow. Generally speaking, the quantity of fish also increases with the rate of water flow towards new moon (*amabashya*) or full moon (*purnima*) as shown in Table 14.

Table 14. Tithi and major types of fish

Tithi	No. of days	Major types of fish
13th - 5th	8	Bomla (about 65%) Others (about 35%)
6th - 12th	7	Chela Phesa Rupapati Others Bomla (about 35%)

Now, it will be seen from Tables 15-17 that the fisherfolk's concept of the variation of the catch according to tithi is also corroborated by actual findings. Samples of varied quantity of fresh fish were taken from different khuntis on different dates from three different fishing grounds. The results are presented in those tables,

Table 15*. Catch composition of lower Jambudwip (weight in kg.)

Species	L U N A R D A Y											
	6th Unit		7th Unit		13th Unit	15th Unit	1st Unit		9th Unit		10th Unit	
	I	IV	II	X	II	X	IV	VIII	I	VIII	IV	XII
Crab	0.050	—	—	—	0.330	0.050	0.450	0.050	0.200	0.325	0.050	0.050
C. ramaerati	—	—	0.005	—	—	—	0.020	—	—	—	—	—
Harpodon nehereus	2.000	7.310	0.800	2.800	6.850	5.500	6.820	7.170	5.300	6.350	6.992	7.500
I. elongata	0.100	—	—	—	0.070	—	0.050	—	—	—	—	0.020
O. militaris	—	0.010	—	—	0.020	—	0.050	—	—	—	—	—
Prawn	2.220	1.500	1.500	1.800	0.400	0.630	0.230	0.730	0.400	0.250	0.005	0.050
R. rassilianna	—	—	—	—	—	—	—	—	1.750	0.685	0.400	1.100
S. biauritus	0.030	0.070	—	0.050	0.100	0.050	0.370	0.050	0.050	—	0.003	—
S. nutes	—	0.010	—	—	—	—	—	—	—	—	—	—
Sillaginopsis panigius	—	0.050	—	—	—	—	—	—	—	—	—	—
Stromateus cinereus	—	—	—	—	0.050	0.250	—	—	—	—	—	—
S. taty	0.700	0.700	0.550	0.975	0.670	0.350	0.350	1.100	0.600	0.540	0.200	0.350
Trichurus sp.	1.000	0.100	1.600	2.200	1.230	2.000	1.450	0.650	2.300	1.950	2.300	0.300
Miscellaneous	0.400	0.250	1.545	2.175	0.280	1.170	0.210	0.250	0.400	0.400	0.050	0.630
Sample weight	6.500	10.000	6.000	10.000	10.000	10.000	10.000	10.000	11.000	10.500	10.000	10.000
Total collection	259	148	148	222	259	185	222	185	259	222	259	148

*Data collected from Central Inland Fishery Department.
N.B. Lower Jambudwip is the same locality as of the present study.

Table 16*. Catch composition of Bakkhali (weight in kg.)

Species	L U N A R D A Y									
	5th Unit		6th Unit	13th Unit		14th Unit	7th Unit			
	I	VI	VI	X	VII	III	XIII	IV	X	
Crab	0.100	0.050	0.200	0.150	0.050	0.100	0.020	0.350	0.450	
C. ramaerati	0.050	—	—	—	—	—	—	—	—	
Harpodon nehereus	4.350	5.350	0.700	8.500	7.490	6.950	8.100	4.400	6.100	
I. elongata	0.270	0.350	0.010	—	0.010	0.070	—	—	0.010	
O. militaris	—	—	0.005	—	—	0.020	—	—	—	
Prawn	0.250	0.730	0.450	0.200	0.200	0.330	0.200	0.350	0.250	
R. rassilianna	—	—	1.700	0.240	0.400	0.970	0.200	2.200	1.530	
S. bisuritus	1.230	0.550	0.625	—	0.050	0.050	—	—	0.050	
S. nutes	—	0.050	—	—	—	—	—	—	—	
Sillaginopsis panigius	—	0.050	—	—	—	—	—	—	—	
S. taty	1.250	0.550	0.240	0.600	0.400	0.250	0.400	0.500	0.330	
Trichurus sp.	0.970	2.100	2.850	0.300	1.000	0.830	0.150	1.650	0.930	
Miscellaneous	1.530	0.220	3.220	0.010	0.200	0.430	0.930	0.550	0.350	
Sample weight	10.00	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000	
Total collection	555	370	592	2960	3065	1850	1065	703	888	
Shark	70	40	—	—	—	—	—	—	—	

*Data collected from Central Inland Fishery Department.

Table 17*. Catch composition of Frasergunj (Narayantala)
(weight in kg.)

Species	L	U	N	A	R	D	A	Y
	1st Unit VIII	2nd Unit VIII	X	I	5th Unit VI	II	6th Unit V	
Crab	0.050	0.050	0.010	0.200	0.100	0.250	0.400	
C. ramaerati	0.010	0.050	—	—	—	—	—	
Harpodon nehereus	4.900	2.250	1.900	7.560	6.250	6.300	4.900	
H. Zoli	—	—	—	—	—	0.020	—	
I. elongata	0.010	0.650	0.050	—	0.400	0.010	—	
O. militaris	—	0.100	0.050	0.020	—	—	—	
P. lama	0.050	—	—	—	—	—	—	
P. loradilens	0.005	—	—	—	—	—	—	
Prawn	—	0.500	0.400	0.300	—	0.430	0.600	
R. rassilianna	—	—	—	0.040	0.600	0.350	0.430	
S. biauritus	0.225	1.100	0.900	0.030	0.200	0.050	0.100	
S. nutes	0.020	0.150	0.200	—	—	0.010	0.020	
Sillaginopsis panigius	0.050	0.075	—	—	—	—	—	
S. taty	0.950	1.650	1.300	1.100	1.300	0.550	0.350	
T. jella	—	0.250	0.200	—	—	—	—	
Trichurous sp.	0.350	1.650	2.100	0.500	0.650	0.450	2.100	
Miscellaneous	0.800	1.525	2.890	0.250	0.500	1.080	1.100	
Sample weight	7.420	10.000	10.000	10.000	10.000	9.500	10.000	
Total collection	259	111	222	148	259	74	111	

*Data collected from Central Inland Fishery Department.

Mid-sea is the home of the sea fish. The general concept of the fisherfolk is that fish moves with the current and against wind. This is allright when, during particular lunar position, the current comes from the mid-sea in the south and wind blows from the north. But when the southern wind blows, the current and the wind follow a northern direction, the fish cannot move against the wind, pressed as they are, by the strong back current. The usual concept of the fisherfolk is thus disturbed. They try to explain it by saying that the fish cannot then move against such a strong back current.

Again, it is said that till the beginning of Aswin (September-October), water flows through different tributaries to the sea. With the addition of this sweet river water and northern wind, the sea water becomes light (*patla jal*). But when the southern wind begins to blow, the heavy water (*gara jal*) of the mid-sea gradually flows towards the shore. This natural process of the movement of sea water affects the movement of the sea fish. Thus, a good quality fish can be hauled within three or four miles off the shore (*kul kari*) in the months of Aswin or Kartik. But gradually the fish move southwards for mid-sea water (*bair kari*) with the northern wind. They gradually move again towards shore from the mid-sea with the beginning of southern wind in the month of *Falgun* (February-March). What seems to be important here is that as the movement of the fish is intimately connected with the livelihood of the fisherfolk, they have minutely observed all these phenomena, so that they can set their nets accordingly.

By their close association, they have also observed the characteristics of different kinds of fish. Some fish move close to bed level while some others are found near the surface of the water. This may roughly be represented thus as in Fig. 11.

Most of these fish move with the current. But hilsa, *tapasi* (*rishya*), *karul*, *bata*, *bacha*, *susung*, *pangas* etc., move against the current.

The movement of the fish may also be predicted with the types of fish that have been hauled in the net. This is possible because different types of fish have different types of food. Of course, there are some common food for almost all the types of fish. For example, a very small variety of shrimp, *ghughu chingri* or very small crabs, are the common food for all the varieties of fish. *Ghughu chingri* can be seen even on the surface of the water during

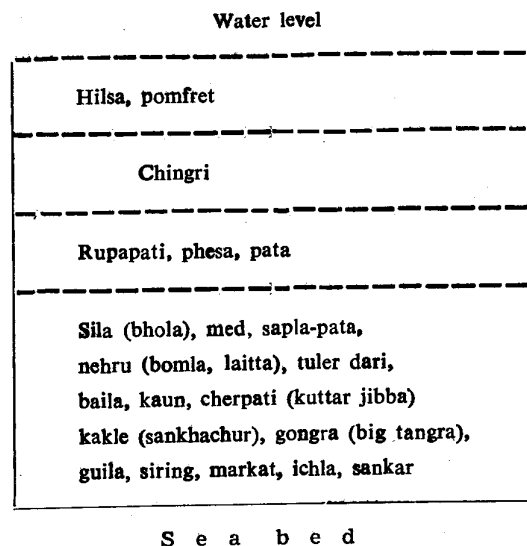


Fig. 11. Stratified location of the different varieties of fish

low tidal period, *i.e.*, when the sea water is least disturbed and the water is comparatively clear.

As one type of fish becomes the food of another type, the fisherfolk can assume, with a good deal of certainty, which type of fish is expected to be hauled in the net within one or two following tides or ebbs. This may roughly be diagrammatically represented as in Fig. 12. The arrow indicates which is following whom :

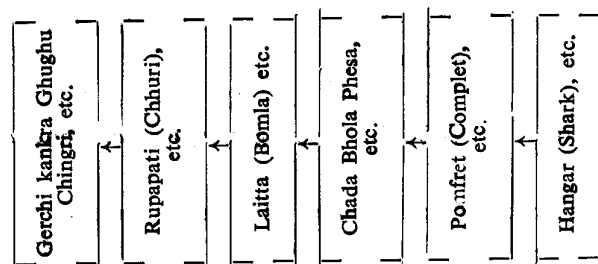


Fig. 12. Movement of the different varieties of fish

The food of shele is bhola. There are always some overlapping between different types of fish. But the sharks always chase all the types of fish which come in their way because, all the types of fish

are their food. But the *kharag-machh* (saw fish) is feared even by the sharks.

Sometimes a particular variety of fish, *pariskar-machh*, no matter if the quantity be little, is hauled in the net. It gives indication that variety of fish will be hauled in the same place in large quantity within one or two days, as the fish generally move in shoal in the same track if not otherwise disturbed by any unforeseen circumstances like stormy weather.

An expert *majhi* also sometimes claims to have the quality to read the stormy weather of the sea beforehand from the colour of the eyes of the fish. It is said that the red eyes of the fish are indications of imminent stormy weather. It may be explained in this way that the stormy weather prevails in some parts of the sea and continues there for some days before it moves to other directions. It disturbs the sea water, as also the fish, within that area. The disturbance thus turns the eyes of the fish red, and, when hauled in the net, they give the indication of an approaching stormy weather. As a matter of fact, during new moon (*amabashya*) or full moon (*purnima*) when the sea is much disturbed, the eyes of the fish turn a bit reddish than their usual colour. To put it in the language of the fisherfolk, "as the fish is the creature of the sea, they are the best indicators to judge the condition of the sea". Confronted with some abnormal situations when they cannot rationalise the usual concept, they become fatalist and impose everything on the presiding deity of the sea, *Ma Ganga*.

Besides this, the colour of the cloud and the nature of its accumulation are considered as indications of stormy weather.

Besides their keen observation of the food habit of the different types of fish, the fisherfolk have also very minutely observed the morphological features of the fish. For example, it has very rightly been asserted by the fisherfolk that *chhuri* or *kekke* have very sharp teeth and pointed beak, as such other variety of fish cannot generally stay with them. Their observations on the external morphology of the fish are so precise that they can easily differentiate the fish accurately; and a specific nomenclature is attributed to each of them. Even the small shrimps are graded according to their morphological differences, *viz.* *rangi*, *ghughu* (*bhusi*), *lali*, *chamne* (yellowish in colour), etc. Again, the *sankar* fish has at least seven varieties according to its morphological variations, *viz.* *aigya*, *baigya*, *kata-bairagya*, *chal-bairagya*, *bana*, *sun suninga*, *teilla*. Some of these are extremely

poisonous, viz., aigya and bana. Another poisonous fish is *kaun*. Now, as the fisherfolk have frequently to deal with all these, they are fully aware of all their characteristics; and some proverbs have also naturally developed in their cultural forum, viz.,

*Jadi mare aigya
Chhoy mas khaba maigya.*

Free translation: If you are bitten by the aigya, you will have to live by begging (i.e., you will be bedridden) for six months.

But the hilsa fish has a very good reputation and the proverb, which shows its characteristics and taste of the fish runs as follows.

*Machher maidye dhainya tui ilisha (hilsa)
Agadh jale tor basa
Naoer pare tulle pare manta hay khasa
Machher maidye dhainya tui ilisha (hilsa).*

Free translation: Hilsa, you are the best among the fishes. You live in deep water. I feel so happy when I catch you and drag you into my boat. You are the best among the fishes, you Hilsa.

On the other hand, the fisherfolk are much afraid of the jelly fish (*lona*). When rain fails, the jelly fish proliferate in the sea and come with the current towards the end of Paus (December-January) or the beginning of Magh (January-February). These jelly fish choke the meshes of the net giving considerable resistance to the flow of water. As a result, nets are damaged. Equally dangerous to the nets are the *kirans* which look like small fishfries developing from the salinity of water. Sometimes, these also come in a huge number and choke the meshes of the net. In the cultural milieu of the fisherfolk a proverb has also developed round lona as follows—

*Lonar chape jal phate
Jaila bhase chokher jale.*

Free translation: The fisherman bursts into tears as the net bursts for pressure of the jelly fish.

Another non-edible fish which causes much damage to the net is the *potka*. It has very sharp sets of teeth. Whenever it enters the net with the current, it breaks through it with the help of its sharp teeth causing much damage to the net. Hence, the fisherfolk have developed much hatred and aversion for the *potka*. They are found to throw or kick away with some abusing word (*sala*—wife's brother) referred to it if any such fish is found in the net. If the net is

severely damaged by the *potka* almost all the hauled fish are lost. Their hatred towards *potka* is sometimes ventilated in cutting it into pieces and throwing them in the sea as food for the shark.

Besides these, there is one variety of non-edible shrimp known as *icha-pok*. They are yellowish in colour having legs of one and half to two cubits; and they move in a very large number. It is believed that some evil spirit moves with them. Nets are sometimes held by that spirit under the water. The spirit has then to be propitiated with a goat. The goat is not to be sacrificed but dropped into the water after worship when, it is believed, the spirit would release the net. The worship is made by the *majhi* himself. The net might have been fixed up to the ground owing to some causes like sand dune. But the fisherfolk, failing to remove the net, are at a loss. Their rationality cannot work any more and ultimately they surrender to superstitious beliefs.

Now, let me look at some of the general characteristics of the fish as perceived by the fisherfolk. It is said that during the new moon day of the month of Bhadra (August-September), i.e., *Bhadai amabashya*, and full moon day of the month of Aswin (September-October) or Kartik (October-November), i.e., *Laxmi-purnima*, when the tide is high, the fish come down the stream from a higher region like paddy field. In the month of *Chaitra* (March-April), the fish carries spawn; and in *Baisakh-Jaistha* (April-June) lays them. Again, during the months of *Asar-Sravan* (June-August), they try to follow the upstream because of heavy back pressure of water from sea.

The general observations of the fisherfolk on sea fish are also not lacking. It is said that *bhola* fish abound near *duba-char* (Fig. 9) and *hondra* (tuler dari), *bhetki*, *karul*, *koral*, etc. near *duba deli*. Different varieties of fish are found away from the shore.

It has been said earlier that the bed level of the sea is undulating having some *khari* and the fish follow some definite track known as *chialer khari* (Fig. 10). It is said that the fish are hauled more during the ebb (*bhata*) than during the tide (*joar*). It so happens because during the tide both back pressure of water and its volume increase. They scatter the shoal of fish in different directions. But during the ebb, when the back pressure of water is less, the shoal of fish try to follow the *khari* (Fig. 10) with water where the nets are set.

Again, the catches are more during night than in the day time, because the fish move in large number during night. Similarly, more catches are also found during the darker half of the month than in brighter one. It is because pitch darkness prevails in the night of the

darker half of the month and the current of water is also stronger during that half.

D. Sequence of tide and ebb

It has been said earlier that the quantity and types of catch decrease or increase according to the velocity of water current, *i.e.*, according to the tide and ebb which in turn are affected by the lunar position (tithi).

One fortnight (*paksha*), either brighter, *i.e.*, *sukla*, or darker *i.e.*, *krishna*, half of the month is divided by the fisherfolk into two broad heads, *viz.*, *jo* (when both tide and ebb are maximum) and *dala* (when both tide and ebb are minimum). *Jo* is from the tenth (*dasami*) lunar day to the fifth lunar day (*panchami*). The *dala* is from the sixth lunar day (*sasthi*) to the ninth lunar day (*navami*). *Dasami* to *amabashya* of *krishna paksha* is known as *uritta*. The period of *jo* and *dala* always increases or decreases a little this way or that. The sequence of tide and ebb is diagrammatically represented in Fig. 13.

As the sequence of the tide and ebb is directly connected with the lunar position, the fisherfolk have a very clear concept of these sequences. Each month is broadly divided into two halves—*sukla paksha*, *i.e.*, brighter half of the month, and the *krishna paksha*, *i.e.*, the darker half of the month. On the new moon day (*amabashya*) the current is stronger than on the full moon day (*purnima*). Hence, *amabashya* is considered to be male, and *purnima*, female.

Further, from their experience, they have observed that the force of the current of sea water gradually increases from tenth and reaches its optimum either in *amabashya* or *purnima* whichever the case may be. But in *krishna paksha* the force of current is greater than that of *sukla paksha*. Hence, the current reaches its lowest level for three days (7th to 9th). It is known as *tiner-dala* in *krishna paksha*. In *sukla paksha*, the low current continues for seven days (5th to 11th). It is known as *sater-dala*. This is due to the simple reason that the increase of the volume of water during *krishna paksha* is more than what subsides during the ebb period. It is said that in *krishna paksha* the ebb period is shorter than the tide period. So, every day the rise and fall of water is not balanced. The subsidence of water being less, the volume of water goes on increasing every day till *amabashya*. But, after *amabashya* when the back pressure of water becomes less, the rise and fall of water is gradually

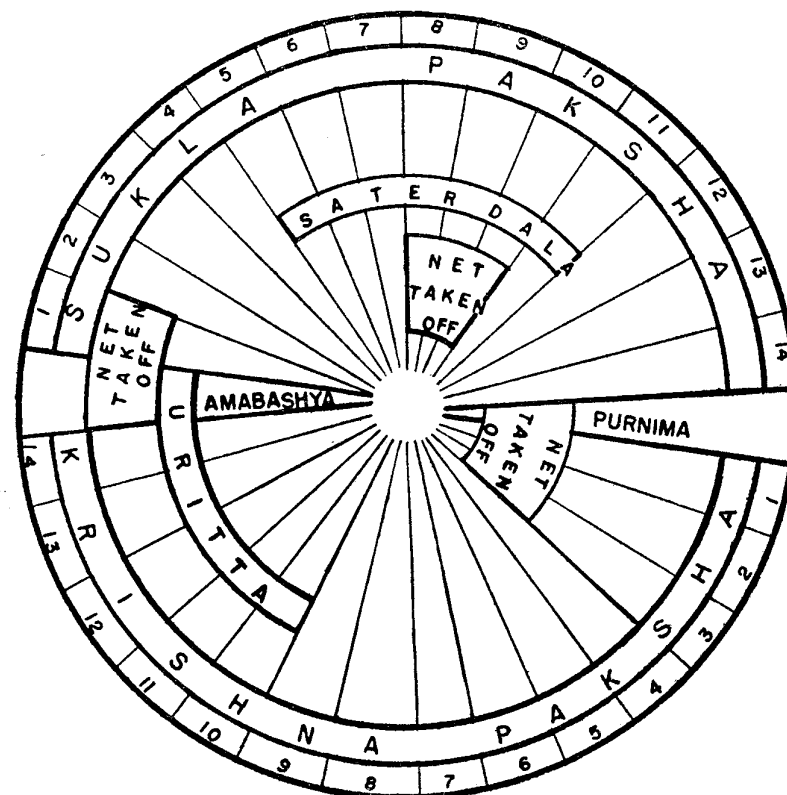


FIG.13. TITHI AND NET SETTING

balanced during *sukla paksha*. As such, in *sukla paksha*, almost uniform tide and ebb are noticed during the period from fifth to eleventh day (*panchami* to *ekadashi*), which period is known as *sater-dala*. On the other hand, in *krishna paksha*, extremely low current of water is noticed during the period from seventh to ninth day (*saptami* to *navami*), which period is known as *tiner-dala*. These sequences of tide and ebb are explained by the fisherfolk with their popular saying : *Amabashyar aga bali, ar purnimar pachha bali*, *i.e.*, the force of water current is more before new moon and after full moon. Again the *dasami* (10th lunar day) is significant to the fisherfolk, and is marked with some ritual, as from this day the tide begins to rise again. They rationalise this situation and try to explain it as that the mother *Ganga* (presiding deity of the sea) opens her door from this day wherefrom the water flows.

Each tithi (lunar day) is so intimately connected with their life that they accurately remember each tithi. In their day-to-day conversation, they refer to tithi instead of referring to the name of the day of the week. It may so happen that sometimes they do not remember the day but the tithi only. This great concern for the tithi is due to the fact that tide and ebb, which control their major livelihood activity, are affected by the tithi. It is on the basis of tithi that they have to judge when the nets are to be set and when they are to be taken off.

The distance is also calculated in terms of tide and ebb (joar-bhata) instead of miles or kilometres, i.e., to cover a specific distance, how many joars or bhata have to be paddled in the boat. It has been said earlier that during amabashya and purnima the force of the water current becomes strongest. So, they generally take off net, particularly the older ones, during that period, because the net may not withstand that current and may be damaged. Again, in extremely low tide, the quantity of fish decreases. So, it is practically useless to set the net during that period (8th to 10th in sukla paksha and sometimes during 8th to 9th in krishna paksha).

The tide and ebb follow a cyclic order. In twentyfour hours there are two tides and two ebbs, each continuing for about five hours. The time span between maximum tide and beginning of ebb, i.e., when the water comes to a stand still, gradually shortens towards amabashya or purnima. This period is of much importance to the fisherfolk as only in this period they can remove the catch from the net. During other periods, the whole net goes down under water due to strong current (for details see Chapter V).

They are so much conversant with the sequence of tide and ebb that they have observed that each day the tide begins about fortyfive minutes later than the previous day.

One of their popular sayings is *ekadashite saiyya ar beaina joar*, i.e., on the eleventh lunar day the tide begins in the evening and again early in the morning. Thus it is seen that as the timings of tide are influenced by the lunar position, the fisherfolk have evolved their own way of calculating it, instead of going through any astronomical complicacies in calculating the tithi. As a matter of fact, they are very much down to the earth in developing their notions of the natural universe. They utilise their observations of the natural phenomena in their day-to-day life and some rational generalisations are framed round them.

In addition to the general principle of tide and ebb as conceived by the fisherfolk, some of the days are specially remarkable to them. On those days, it is said, the tide reaches its maximum level. These days are the full moon day of the month of Falgun (February-March), i.e. the *dolpurnima* day; the full moon day of the month of Agrahayan (November-December), i.e. the *rashpurnima* day; the new moon day of the month of Bhadra (August-September) and the new moon day of the month of Kartik (October-November), i.e. the *Kali pujar amabashya* (the day of the worship of the goddess Kali). In the ideology of the fisherfolk, rainy season starts from dolpurnima day and comes to an end on rashpurnima day. It is worth mentioning here that rainy season being an important period for the growth and development of the fish, it is also of much importance to the fisherfolk.

Again, the seventh day of the darker half of the month of Magh (January-February), i.e. the *maghi saptami*, is considered to be the menstrual period of the mother goddess Ganga. Hence, that day is tabooed for fishing in the ideology of the fisherfolk. But now-a-days this taboo is not observed by all. As a matter of fact, during this period the tire comes to its lowest level, largely decreasing the amount of catch. So it is not unlikely that the fisherfolk observing this phenomenon gradually developed some mythological stories connected with it and some taboos have naturally emerged. In other words, there is a rational under current to this mythological notion. The same notion regarding menstrual period of mother earth during *amabubachi* in the month of Asar (July-August) is observed among the peasant communities of Bengal when ploughing is prohibited.

E. Ascertaining time and direction

In the pursuit of their fishing operation the fisherfolk have to go far away from the shore both in the night and day when the shore becomes completely invisible. Sometimes they have to stay there for days together. Under such a condition it is not unlikely that they may lose the direction of the shore. As they do not carry any watch or mariner's compass with them, they have to depend on the stellar system which they minutely observe, and utilise it for their working purpose. Out of innumerable night stars, some big ones are selected by them for their direction and timing. Some mythical stories are also framed round some of the important night stars to emphasize their

special importance and to remember those stars very vividly for years together. The following are the important stars (*tara*):

Dhruba tara: Dhruba tara (Pole star) is the most important one to the fisherfolk to ascertain their direction accurately. It can be seen every night at a fixed place in the north.

It is said that Dhruba was a mythical hero. He was in deep penance to appease the deity Narayana. Narayana was pleased and offered to bless him. Dhruba, in his turn, wanted only the *darshan* (glimpse) of Narayana everyday. Narayana agreed to his proposal. So we find Dhruba at a fixed place every night in the north waiting for a glimpse of Narayana.

Nishi tara: Nishi tara rises at mid-night in the east and sets in the west.

Adam surut tara: Adam surut is a cluster of thirteen stars and is depicted as a monster. The layout of these thirteen stars gives the outline of a human figure. The outline of the head is comprised of three stars. Two hands are represented by two stars, while in the waist we find three. Two legs are represented by two stars and the tail is formed by three others.

Sat-jali tara: Sat-jali has been named after seven (*sat*) fairies who are found together. These fairies are seven sisters. They rise in the east and set in the west.

It is said that of these seven sisters six are married. The youngest, being unmarried, is seen a little apart from her six elders. One representative (a star) of Adam surut wants to catch hold of the unmarried youngest sister for marriage to his master Adam surut. But she does not agree to marry the monster and always runs away. So the representative of the monster is always trailing behind her everyday.

Chhoy ghari tara: Chhoy ghari rises in the west in mid-day and sets in the evening in the west. It can be seen for about six hours. Hence, it is termed Chhoy ghari (six hours).

Dakati tara: Dakati tara rises in the east after about nine hours of sun set. They say that it is so named because *dakats* (robbers) come out for robbery when the dakati tara rises.

Shuk tara: Shuk tara rises in the east after about fortyfive minutes when the dakati tara sets in the west. The sun rises about two hours after the shuk tara rises.

Shinga and Dinga tara: These two stars are brothers and rise in the north. They set with sat-jali in the west.

The fisherfolk generally do not sail in foggy nights lest the direction is lost, as the stars then are not visible. Even if it becomes necessary, they anchor the boat and minutely observe the direction of the tide and ebb whichever that might be and thereby try to ascertain the direction of the shore.

It has also been observed that sometimes in the dark night, when the location of the net is lost, the cry of the sea-gulls (*moyna-pakhi*) becomes very useful to them. It has been learnt from experience that the sea-gulls stay in the vicinity of the nets. For this simple reason the sea-gulls are supplied with some fish at the time of removing the catch from the net. So they stay near by the net. Sometimes, when they are lost in the sea, the direction of the flight of the sea-gulls has saved the lives of many fisherfolk. So they have developed some sort of reverence for them and consider it a taboo to kill or harm them in any way.

DISCUSSION

From what has been said it appears that like the Trukese navigator, the cognitive strategy of the fisherfolk is also essentially inductive—proceeding from details to principles (Gladwin 1964: 175). Both start with the end in view—the Trukese the distant island and our fisherfolk bumper catch. This process is followed without any explicit principles and without any planning in the strictest sense of the term—not following a coherent sequence of logical steps. As such, it does not represent what we tend to value in our culture as 'intelligent' behaviour. We might call it a 'knack' and respect a person as such for this high order of intellectual functioning.

The marine fisherfolk, for their long association with the sea, have developed a very intimate knowledge of their immediate environment, i.e., of the sea and the sea fish. Their life activities are closely inter-woven with it and a thorough empirical knowledge becomes indispensable for their livelihood and for their daring sea voyage in which a wrong judgement may be a risk to their life or cause a major failure in hauling. These two major factors seem to have largely led them to develop the cultural and emotional awareness of their immediate environment, viz., sea, fish, and the like.

Schlippe (1956: 46) has also very ably spelt out the ecological conception of the Azande of South-west Sudan in his analytical study of their shifting cultivation and remarks: 'what good botanist, and ecologist the Azande are'.

Like the agriculturists, the fisherfolk also have their own classification of their 'soil', i.e., the topography of the sea with which they are greatly concerned, and a definite nomenclature is attributed to each of them. Again, their view of the sea is so clear and distinct that different types of waves have specific terms according to their characteristic features. In the same way, the pastoral Nuer (Evans-Pritchard 1940 : 41) have different names to specify a particular cow according to the distribution of its colour, although they might have limited number of vocabularies in other spheres of life. It is, therefore, quite natural that the marine fisherfolk have enriched their vocabulary to a great extent in respect of sea waves with which their lives are greatly concerned as it is in the case of the pastoral Nuer in respect of cattle.

They have learnt by experience to read the condition of the sea in different situations in an inductive way, and, surprisingly enough, they can even judge the topography of the bed of the sea from above through the types of breaks and the direction of the water current.

They are fairly conversant with the nature of the different varieties of fish and quite successfully utilise their knowledge in hauling the catch. They also have a working knowledge of the characteristics of different varieties of fish. Even the subtle differences between the same species, e.g., shrimp, have not escaped their notice, and each type is designated with a specific term as the agriculturists designate different varieties of paddy. Sometimes, it is even found that the types of fish which grow to a big size are also classified with different terminology according to its growth and size. Again, in the same way, not to speak of the fisherfolk, even the non-fisherfolk of Dacca, owing to their ecological set up, are much acquainted with fish, at least more than that of the people of West Bengal, e.g., they have their classifications of *ruhi* fish according to its size, viz.—*pona*, *nala*, *garma*, *ruhita*.

Some of the proverbs connected with fish also give us some reflection on the nature of some of the fish. They also widen the cultural horizon of the fisherfolk indicating their insight into fish with which they are greatly concerned. Evans-Pritchard (1940 : 41) has rightly observed that the

"Linguistic profusion in particular departments of life is one of the signs by which one quickly judges the distinction and strength of a people's interest."

Again, in calculating tide and ebb which largely affect their catch and consequently their life in the sea, the fisherfolk has developed some working principle on an inductive basis with some of their own rationales in correlating the tide and ebb with the lunar system.

Their knowledge regarding stellar system, particularly of the night stars, becomes indispensable to ascertain correct direction in the vast open sea in the night. These stars are so much intimately connected with their life that some beautiful folk stories are woven round them. They help them to keep those useful stars in their mind. Furthermore, knowing fully that as these stars rise at a fixed place at a definite time, the poor fisherfolk, who do not have any watch with them, can get some idea about time. When they are lost in the sea, sometimes for a few days, they feel very much insecure in the vast open sea, particularly in the night. Some of these stars give them some consolation indicating how many hours of the dreadful night are yet left to pass. It is not unlikely, therefore, that thereby the fisherfolk can regain some mental strength to withstand the horror of the dark night.

The flow of tide and ebb is also utilised by them to keep their direction in foggy weather. The cry of the sea gulls who generally stay near the net for food are also sometimes profitably utilised by them to locate the exact spot where the nets are set if they are lost in the dark night.

Thus it is seen that the fisherfolk in utilising the natural phenomena, intricately connected with their life, have enriched their contextual cultural material to a great extent. Furthermore, the inside view of the fisherfolk towards their immediate environment bears a great cultural significance in their life. The "sentiments, ideas and judgements" (Redfield 1955 : 82) of their environment adds to the quality of their cultural dimension.

Finally the following generalizations may be made in view of the discussion made above.

- (i) Through generations of intense involvement in this particular form of livelihood activity, the fisherfolk have developed a detailed knowledge (as expressed through their vocabularies, phrases, etc., and also in their behaviour) not only of the technological problem in fishing but also of the relevant natural environment.
- (ii) Perpetuation of this knowledge has often been aided by elaborate folklore and mythology.

- (iii) Although the fisherfolk tend to solve their technological problems, mainly in accordance with their traditional knowledge, they have been found to deviate from traditional technical norms to meet contingent situation.
- (iv) In their knowledge of the environment the fisherfolk do not seem to be guided by any deductive scheme. Their process of the growth of knowledge and learning is essentially inductive in nature.

TECHNOLOGY

Marine fishing is a specialised undertaking requiring considerable preparation, skill, tact, and experience.

The most important apparatuses necessary are the net and the boat. The nets are knit by the fisherfolk themselves while the boats are mostly hired. The raw materials necessary for a net are purchased from different villages and urban or semi-urban market centres, the details of which are noted in Chapter VII.

In the following pages an attempt has been made to delineate the fishing technology of the marine fisherfolk of Jambudwip. The preparation of the fishing gears, viz., indigenous method of thread making, net and their operations, etc., have been described in considerable detail on the assumption that it is only on the basis of a detailed knowledge of the tools and techniques of the fisherfolk that a genuine understanding of their way of life will be achieved.

This chapter has been broadly divided into two heads, viz.,

- (a) Tools and implements ;
- (b) Techniques of fishing.

A) Tools and implements

(1) Thread making

The net is made of hemp (*san*) thread. Now-a-days, the fisherfolk mostly purchase thread from different market centres (see Chapter VII). But even now their indigenous techniques of thread making is not lost altogether. It is claimed that the quality of hand-made thread is better than that of the machine-made. So it still has a great demand. But due to the laborious and lengthy process of its preparation hand-made thread is seldom available in the market. Whatever little quantity is available is mostly procured from a market at Uluberia.

Again, from the economic point of view, preparation of hand-made hemp thread is not profitable. One kg of hemp costs Rs 2.12, and the same weight of hemp thread costs about Rs 1.50. One kg of hemp thread requires about 1250-1300 grams of raw hemp. Again, to twist one kg of hemp thread requires about 10-12 working hours. If we include labour charge even at the local rate, about

*Here, the market price of 1967 is given.

Rs 4 a day for about eight working hours), the total output of hemp thread will result at a loss in market value. But here we shall have to consider an important factor. Spinning of thread is generally done by the women during their off time. Sometimes, the male members also do it at their spare time. No doubt, it ideally leads to the wastage of huge man-power. But in the perspective of limited structure of occupational opportunity in rural India, the fisherfolk find it economically rational to utilise their leisure hours in activities which are very much connected with their major source of livelihood.

The hemp thread is prepared in three different phases.

First, the bundle of hemp is to be soaked in water for the whole night, preferably in water with which parboiled rice (*siddha chal*) has been washed. The soaked san is then thoroughly beaten against a hard object and dried in the sun. To meet urgent demands the hemp fibre is slightly smeared with mustard oil instead of soaking

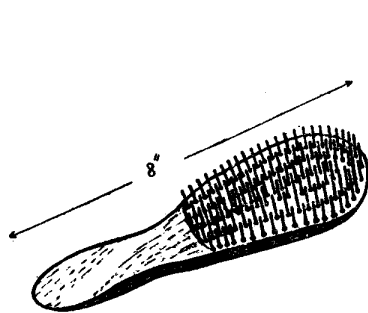


FIG. 14. BRUSH (KANTA)

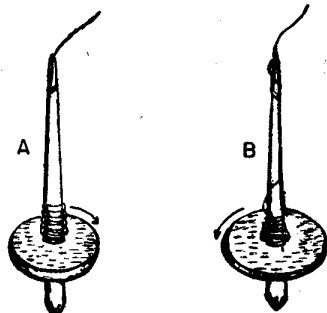


FIG. 16A&B. SPINDLE (TAUR)

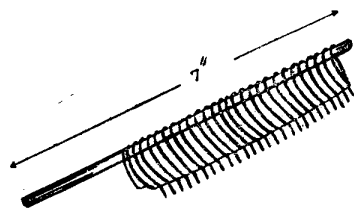


FIG. 15. COMB (CHIRUNI)

in water which takes a longer time. Next, the whole bundle of hemp is brushed with an iron brush, (known as *kanta*; Fig. 14). Then, it is carefully combed with a comb (*chiruni*; Fig. 15). It is said that previously bamboo combs were in use. Now the teeth of the combs are made of small iron nails. After combing, the hemp fibres become

like locks of grey hair. Then the fibres are twisted into narrow strings by means of a spindle (*taur* Figs. 16 : A and B). This is mainly the job of the women.

The types of spindles used by men and women also vary because of their different methods of operation. The women twist the spindle in clockwise direction, placing it on the ground by means of their right thumb and second finger. So the notch on the top of the spindle, holding the string, is on the right side of the operator to avoid the possibility of the string slipping away. But the men operate the spindle in anticlockwise direction placing its bamboo handle on the thigh with their palm. At the time of operation they hold the string with their left hand and the spindle dangles down in the air and goes on twirling in anticlockwise direction. So, here the notch of the spindle is on the left side to prevent the string from slipping away. It may be noted here that the women due to their moral convention, and with an eye to decency, do not raise their *sari* (piece of cloth worn by woman) up to their thigh. So, their method of operation is different. Also, the spindle operated by the men is heavier than that used by the women. Again, as the men operate it in standing posture, it can provide more space for the string to twirl at a time, thus increasing the production.

When the narrow strings of thread (*tar* or *gun*) are thus finished, three to seven such strings, as required, are then twisted together by means of a spinning wheel (*charkha*) or spindle for a strong thread or rope. This is mainly the job of the male. After the threads or ropes are thus prepared, they are soaked in water for the whole night and then thoroughly rubbed with a piece of cloth. This process is known as *pak basana* or *suta maja*, i.e., fixing the twisting.

Recently, there has been an attempt to introduce nylon thread among these fisherfolk. But the fisherfolk are very much reluctant to use it for making their bag (*bindi*) net, in spite of much propaganda on behalf of the different nylon thread producing concerns and government officials. Attempt has been made to convince them that it would last long, and no preservatives are required unlike in the case of nets made of hemp thread, and that it would reduce much of their recurring expenditure and lot of troubles. But the fisherfolk do not seem to favour such innovation, at least in respect of bag net, although it has been largely accepted for gill net (*chhandi*). In general, a full length gill net does not belong to a single individual. The different parts are supplied by different shareholders. So, in spite of the high cost of nylon thread (about Rs 60 per kg at control rate), the total cost is distributed among different shareholders. The total amount of

nylon thread required for a gill net is also much less than what will be required for a bag net. Again, as the gill net is operated in a floating position, the lightness of the nylon thread does not hamper its operation in any way. Moreover, strong and finer thread is thought to be the best material to prepare gill net. Due to the fineness of the nylon thread, the fish cannot see the nets and are easily gilled in the net as it floats with the current. It is interesting to note that the white nylon thread is turned into black by applying preservatives, though nylon thread needs no preservative. Yet the fisherfolk do apply it according to their traditional age-old practice, whereas the employees of the Directorate of Fisheries at Frasersgunj use it, though reluctantly, without preservative. Although it is reported that nets with preservative last 3-4 years in the hands of the Government employees, it cannot be taken as conclusive as the life of the net depends much on careful and efficient handling.

In the case of the bag net, the fisherfolk are afraid lest the long tail end of it may not sink properly due to the lightness of its nylon thread. Besides this, important economic factors are also involved. The preparation of a bag net with nylon thread requires about Rs 4,000, a little above double the amount for hemp thread. The labour charge is also about double (about Rs 4 per cubit length), as it requires double knotting. Such skilled labours are also scarce. As the different parts of the bag net are inseparable, unlike gill net, the owner of the whole net is a single individual who has to bear the entire cost. Again, to run a fishing unit profitably, at least two or three nets have to be always kept ready in the sea. So it requires a huge capital investment only for net (e.g., about Rs 4000×3=Rs 12000) besides other expenditure. Further, it is said that the white nylon threads will attract sharks and the net may be damaged.

Thus it seems that the economic and technological factors are standing in the way of adopting nylon thread for the bag net, while the same considerations have facilitated the adoption of nylon thread for gill net with, of course, preservatives as their tradition would have it.

(2) Net making

Net making is the job of both men and women. The women do it in their natal villages along with their domestic work. It is made on monetary contract basis. The rate is about Rs 2 per cubit length of net. The rate of course, varies according to the size of meshes to

be knitted. But in the fishing camp, as they do not have any women with them, they do it by themselves.

The net-making apparatuses of the fisherfolk are very simple. They require only two things, viz., *phai* and *tail*.

Phai: Phai is just a flat bamboo split 4" or 5" in length (Fig. 17). The breadth varies between $\frac{1}{2}$ " and 3" according to the size of meshes required in different parts of the net.

The operator, holding the *phai* in his left hand, goes on increasing the number of meshes with the help of *tail* (Fig. 17), holding it in his right hand, in such a way that a knot (*sur*) is tied every time. Thus four knots are found on four corners of each mesh. Each side of the mesh is known as foot (*pa*). In the concept of the fisherfolk, as a man moves on gradually step by step, the size of the net also gradually increases side by side of the mesh. The size of the meshes gradually decreases at the holder end.

Half of each horizontal row of meshes is known as *pata* and two successive *patas* complete one single row of square meshes with four knots at each corner. The numbers of meshes on the upper and lower rows are not always the same. It is increased or decreased according to the desired form of the net, e.g., in bag net, the upper part is much wider than the lower part. When it is increased it is known as *jiani* and when it is decreased, it is known as *marani*.

Tail: It is a torpedo-shaped split of bamboo. Its both ends are scooped up and splitted while the middle portion is kept in tact. It functions like the shuttle of a weaver. The thread is longitudinally wound round it as shown in Fig. 17.

(3) Net repairing

Net repairing is a regular feature in the fishing camp. Some parts of a net or other have to be repaired every day. As there is no woman with them in the fishing camp, the fisherfolk do it for themselves.

The net is repaired with a wooden needle, known as *daishya*, prepared on the spot by themselves. In case of big damage the affected part is replaced with another piece of net and stitched together with *daishya* or *dasi* (Fig. 18).

(4) Fishing net

The net is the most important apparatus of the fisherfolk. They are conversant with the preparation and operation of various types of nets. But here I am mainly concerned with bag net as they make and operate only this type of net in Jambudwip.

The bag net is so named as this net is set by tying (*bandha*) with wooden posts. This net is a bag-type of net and funnel-shaped (Fig. 19). It consists of different parts. Each one is knitted separately and then joined together. The whole net is conceived of as a human body and as such some of the parts, viz., eye (*chokh*), hand (*hata*), cheilion (*kosa*), ear (*kan*), etc., are named in analogous to parts of the human body.

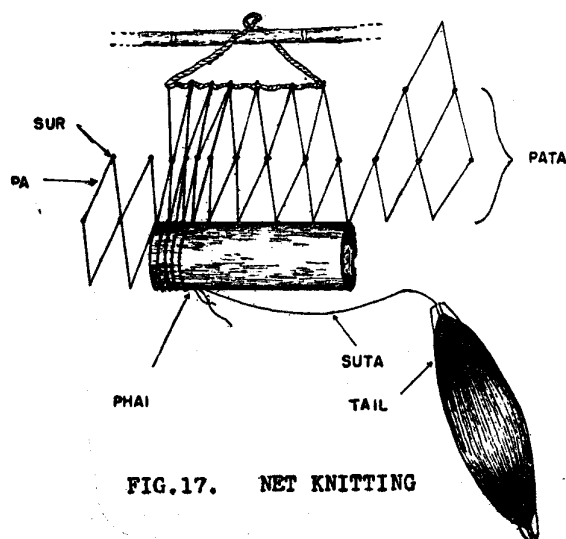


FIG.17. NET KNITTING

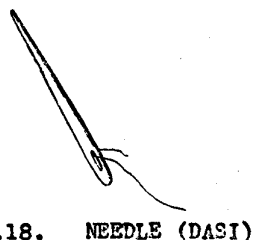


FIG.18. NEEDLE (DASI)

Similar instances are found among the potters with reference to their wheel—the source of thier livelihood. They conceive it as a human body having its eyes, hands, head, etc. (Saraswati 1967). Thus it seems probable that the fisherfolk have developed (due to their close attachment with the net) like the potters, a great sentiment regarding their net.

The bag net is made in different parts joined together. Following are the different parts of the bag net:

(i) <i>Chokh</i>	—	4 or 8 (two or four pairs)
(ii) <i>Dhairja</i>	—	4
(iii) <i>Hata</i>	—	2
(iv) <i>Kosa</i>	—	2
(v) <i>Chal</i>	—	2
(vi) <i>Bara barus</i>	—	1
(vii) <i>Chhota barus</i>	—	1
(viii) <i>Melan</i>	—	1
(ix) <i>Chhola</i>	—	1

(i) *Chokh* : The most complicated part of the net is its *chokh*. Its number of meshes depends on the total number of meshes of the net near its mouth. So, it is to be made at last after the completion of the other parts of the net comprising the mouth, i.e. *chal*, *kosa* and *hata* to which the *chokh* is joined (Figs. 20A and 20B).

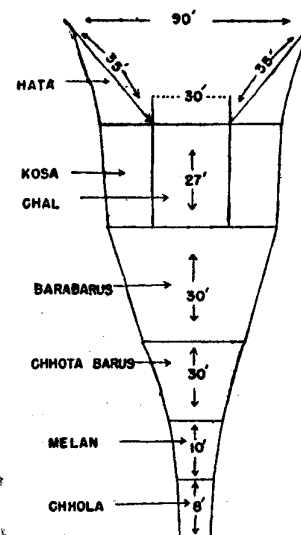


FIG.19. NET (BINDIJAL)

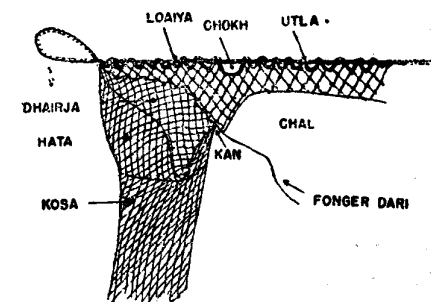


FIG.20A. EYE OF THE NET (CHOKH)

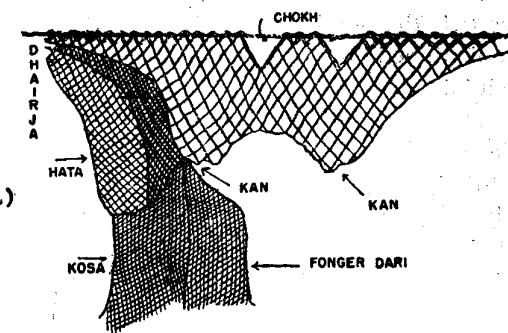


FIG.20B. EYE OF THE NET (CHOKH)

Out of the 17 fishing units, comprising 243 individuals in Jambudwip, there are only 19 individuals who can knit *chokh*. But in every unit there is at least one individual who can knit it. That individual is invariably the *manjhi* (steerer of the boat). It is essential to maintain such an individual in each unit for the smooth running of the fishing operation.

The *chokh* is made of strong rope as it has to withstand the whole resistance of the water current to the net. Even a minor mistake in knitting the *chokh* and joining it with other parts of the net would create much trouble when the net is set. A wrongly prepared *chokh* would give much water resistance to some parts of the net and it may result in tearing off the net. So it is said that the life of the net

depends on a properly made chokh (Figs. 20A and 20B). On the day of making the chokh, a ritual is performed (Chapter VI).

The chokh is fitted round the mouth of the net. In some cases there are four, while in others there are eight chokhs in a net. The number of chokhs varies according to the size of the net. The fisherfolk of the district of Noakhali used to have four chokhs (Fig. 20B) in their net as they operated smaller nets in East Pakistan, while the fisherfolk of Chittagong used to make eight chokhs in a net (Fig. 20A) in East Pakistan, for their nets were bigger in size. But in Jambudwip, both these groups are operating their nets side by side in the same field and are found with both four or eight chokhs in their nets. The technique of making a chokh being a complicated one, it is left to the discretion of the individual who makes it, as he is most accustomed to this art.

After the partition of Bengal, both the fisherfolk of Noakhali and Chittagong have settled on the Indian side and in the same fishing unit we find the fisherfolk from both the districts. As a result, both the types of chokh are also seen side by side. But in the case of a bigger net, the service of an individual who can make eight chokhs is requisitioned. For this no remuneration is taken nor any secrecy is maintained.

Near the mouth of the net two more important parts deserve special mention. They are *utla* and *loiya* (Fig. 20). *Utlā* is a wire rope fitted round the mouth of the net. It holds the whole net. *Loiya* are the meshes made with the strongest rope through which the *utla* is fitted.

There are four *dhairjas*, two *hatas*, two *kosas* and two *chals* in a net.

(ii) *Dhairja*: A *dhairja* is made of thinner rope than that of chokh. It is knitted along with chokh, *loiya*, *hata* and *kosa* (Fig. 20).

(iii) *Hata*: The *hatas* are on two sides of the net (Fig. 19). Their function is to widen the mouth of the net to cover a large area for the inflow of water current with the shoal of fish.

(iv) *Kosa*: The *kosas* are on two lateral sides of the net (Fig. 19).

(v) *Chal*: The *chals* form the upper and lower medial parts of the net (Fig. 19).

(vi) *Bara barus*: The upper part of a *bara barus* is wider than the lower. The number of meshes in the upper part is equal to that in the lower part of the two *kosas* and two *chals*. It is made with stronger thread than that of *chal*, *kosa*, or *hata*, for it has to stand stronger water resistance due to its smaller meshes (Fig. 19).

(vii) *Chhota barus*: A *chhota barus* is cylindrical in shape, the

upper and lower parts having the same number of meshes. It is made with stronger rope than that of *bara barus* for it stands more water resistance due to smaller meshes. Moreover, fish are also collected here and in *melan* (Fig. 19).

(viii) *Melan*: Same as *chhota barus* (Fig. 19).

(ix) *Chhola*: The lowest part of the net is called *chhola* (Fig. 19). The whole pressure of the hauled fish is borne by it. So, it is made with strong coconut fibre rope. Besides, if the *potka* (a kind of non-edible fish having very sharp teeth) is hauled, it cannot make any damage to the lower part of the net, otherwise the whole catch, accumulated at the lower part of the net, is lost. Sometimes, the *melan* is covered with *chhola* serving the same purpose.

The other accessories of the net are as follow:

Khunti: *Khunti* is a strong piece of log, either of *sal* or *jhau*, of about two *baums** (about 11' in length and about 10" in diameter). Its lower part is made pointed in order to facilitate planting in the sea bed. The upper part is slightly chiselled for easy hammering to get the whole *khunti* planted in the sea bed (Fig. 21). The purpose of the *khunti* is to hold the net.

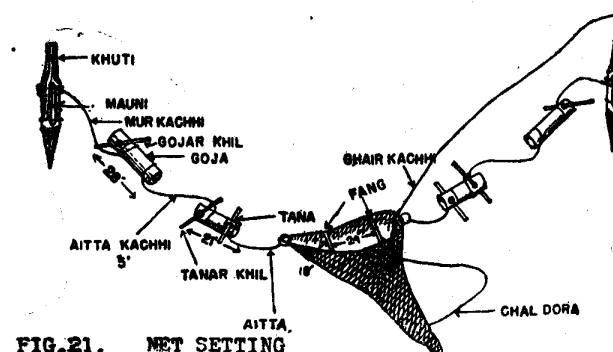


FIG. 21. NET SETTING

Mauni: *Mauni* is a branch of a tree firmly tied at the middle of the *khunti*. Its function is to hold the *mur kachhi*** (Fig. 21).

Mur kachhi: *Mur kachhi* is a wire rope with a length of about 8' (Fig. 21). It holds the *goja* with the *khunti*. The length of *mur kachhi* is made bigger than an *aitta kachhi* to facilitate the *goja* to rotate

**Baum* is the local linear measurement of the fisherfolk. The term is also used to measure the depth of the sea. One *baum* is equal to the full length of arms stretch of a normal adult individual. Another linear measurement is *hat*, i.e. a cubit length.

***Kachhi* means rope.

smoothly with the current. The mur kachhi is not generally firmly tied with the khunti at its upper end. But a loop is made with the lower end of the mur kachhi. The said loop of the mur kachhi is inserted through the khunti and is held by mauni, providing greater facility of the mur kachhi to rotate with the current. Thereby it averts the friction of mur kachhi thus averting the risk of its being torn off.

Aitta kachhi : Aitta kachhi is also a wire rope with a length of about 5'. It serves the purpose of holding goja with tana. The upper end of aitta kachhi has a loop and is fitted with tana with a *tana khil* (strong wooden peg) to avoid friction (Fig. 21).

Goja : Goja is a long piece of bamboo with a length of about 28'. A *goja khil* (wooden peg) is firmly fitted at the lower end of it, whereas the upper end of the mur kachhi, made into a loop, is fitted to avoid friction. But the upper end of the goja is free from any wooden peg where the lower end of the aitta kachhi is firmly tied (Fig. 21).

Tana : Tana is a piece of special type of light bamboo, *bora bana*, with a length of about 21'. It serves the purpose of a float (Fig. 21). If the net is a heavy one, and a light bamboo is not available, one pair of bamboos is fitted on both sides of the net. Again, when the tana becomes heavy owing to water absorption, it is to be replaced by a new one and the older one is to be dried in the sun.

On both the ends of the tana wooden pegs are fitted. At the upper end, the utla of the net is fitted by means of a loop (aitta, Fig. 21).

It is said that instead of using the loop of the wire rope for holding the bamboo poles (goja or tana) or the net, it would have been more secure if firmly tied. But that might cause friction due to the rotation of the bamboo poles or the net and thus tear off the wire rope. The fisherfolk, of course, with their experience, have avoided loop at one end, either upper or lower, as one end of the wire rope must be provided with a loop for its free movement. In case of tana, peg and loop are used on both the ends of it for unavoidable reason, as the tana renders greater possibility of friction. Again, to change the net from time to time, the use of peg and loop at the upper end of the tana is convenient, for just by removing the peg they can easily change the net.

Fang : There are two fangs (Fig. 21). It is made of light bamboo, known as bom bans, with a length of about 18' having a diameter of about 8". They act as floats. Two fangs are tied vertically with the chokh to keep the mouth of the net open. The length of the fang is

decreased in case of strong current to render less passage for water to flow, thereby minimising the pressure of water to the net.

Chaldora : Chaldora is a strong rope one end of which is tied at the lower and narrower end of the funnel-shaped net and the other with the utla in between the two fangs at the upper and broader end (Fig. 21). Its function is to pull the lower end of the net, when the fish accumulate, on to the boat. It has got another important function. The fisherfolk has learnt from experience that due to heavy pressure of water and hauled fish, the lower part of the net has the possibility of being detached from the upper part. But it is for this chaldora that this lower part is not lost and can again be joined with the upper part.

Ghair kachhi : A strong rope which holds the boat with the net is called ghair kachhi (Fig. 21). One end of the rope is tied with the upper part of the utla near the fang in such a way that it can avoid friction either with utla or fang lest the rope tears off and the boat is drifted away. It is important to note here that the length of this rope is increased in case of stormy weather so that the boat can easily float over the high waves and may thus be saved.

The size of the net is accounted in terms of *kuri* (twenty), i.e. how many kuris of meshes are on the upper side of the chal of a given net. Mostly, the nets are of the size of 15½ kuri in Jambudwip. It varies according to the fishing ground.

The approximate total threads required to prepare a 15½ kuri net is given below :—

Two chal	— 1 maund
Two kosa	— 35 seers
Two hata	— 30 seers

(5) Distribution of fishing nets

Now, let us see the distribution pattern of the fishing nets of the different units in Jambudwip.

From Table 18 it is seen that

(i) Sixtysix fishing nets are distributed among seventeen fishing units giving an average of 3.88 nets per unit.

(ii) Further, it is found that the average net holding of the shared units is slightly higher (4.14) than that of the salaried units (3.7). It may be due to the fact that a bahardar of a shared unit, who is the owner of the nets, has a tendency to increase the number of nets, so that he can get two extra shares for each net. He never encourages any member of his unit to supply any net. Out of the

total 29 nets in 7 shared units, only 2 nets were supplied by 2 members other than the bahardar. He also tries to minimise the population strength of his unit, (average unit size of the shared unit is about 13.57 while that of the salaried is about 14.80) so that he can get more for his share of the net.

(iii) Maximum number of nets are between 800 and 1000 sizes, i.e., number of meshes in the chal of the net and the highest frequency falls in 1000.

(iv) The range of the number of net holding in a unit varies from 2 to 5. It may be noted here that all the nets in a unit cannot be operated at a time. At least one net must be kept as reserve. Owing to salinity of water, the nets set in the sea have to be replaced from the reserve stock from time to time to apply preservatives. On scrutiny it is found that the maximum number of units (6) have either three or five nets. Maximum utilisation of net can be comfortably made by a given unit if it possesses five nets. In such a case, three nets can be set at a time keeping two as reserve. Those who have three nets can set two at a time keeping one as reserve. But those who have four nets cannot utilise three with only one as reserve. So they set two nets which means not utilising one net.

Thus it seems that the factor of maximum utility of the net also determines the number of net holding per unit.

(6) Preservation of fishing nets

It has been said earlier that the nets are set in the saline water continuously for days and nights. Owing to the salinity of sea water the nets require proper treatment.

It is said that in East Pakistan, where the mango steen juice (*gaber kas*) was found in abundance, the nets were treated with that material. First of all the mango steen fruits (*gabs*) were thoroughly crushed and then boiled in water. Then, after washing the nets in sweet water, they were soaked in mango steen juice for the whole night and then dried in the sun. It is said that the mango steen juice has a very good effect to counteract the salinity and decomposing effect of water, and it also strengthens the thread of the net. But it requires a huge quantity of mango steen which is seldom found in India.

After partition, when the fisherfolk came over to India and started their fishing operations, barks of *garan* tree (*garan chhal*) has been adopted as a substitute for mango steen. They have adopted it from their counterpart in West Bengal proper. But the term has

TABLE 18
Distribution of the fishing net

Net size (No of meshes in the chal)	Shared Unit No.								Salaried Unit No.								Grand total			
	VIII	IX	X	XIV	XV	XVIII	XIX	Total	I	II	III	IV	V	VI	VII	XVI		XVII	XX	Total
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1
600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
700	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
800	2	2	1	2	—	—	—	7	1	—	1	1	2	—	—	—	1	2	8	15
900	2	—	1	—	—	—	1	4	—	1	—	4	2	2	—	—	2	—	11	15
1000	—	3	2	—	3	4	2	14	2	1	4	—	—	1	4	2	2	1	17	31
1100	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
1200	—	—	—	2	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	2
1300	—	—	—	4	3	4	3	28	3	2	5	5	4	3	4	3	5	3	37	66

not changed yet to the East Bengal refugee fisherfolk. *Garan chhal* is also termed as *gab*. This is the only preservative that they apply to their nets. Some of the fisherfolk of West Bengal proper also use light coal tar.

Garan chhal is purchased @ Rs 10 per maund from Kakdwip (24 Parganas), Uluberia (Howrah) and Belegghata (Calcutta). The sellers are mainly Hindus come from Bihar. Kakdwip and Uluberia are the biggest centres where all the raw materials necessary for fishing operation are available.

Due to lack of sweet water, *garan chhal* is thoroughly boiled in saline water so that all the juice may come out. Then the net, after being thoroughly washed in the sea and dried in the sun, is soaked for one night in the hot juice of *garan chhal* which is known as *jag deoa*. Then, in the morning, it is dried in the sun. After that it is soaked once more in the juice for about fifteen to twenty minutes and dried in the sun. Soaking the net for the second time is known as *bor deoa*.

Generally, the nets are not left to dry in the night after *jag* or *bor*, for the falling dew may wash out the juice applied. It is strictly observed in case of new nets. It is said that the falling dew in the night turns the threads of the net brownish instead of black. They think that black nets are better and beautiful. These nets are less visible to the fish. So the fish can easily be hauled, and they can do less damage to such nets.

The interval for applying the preservative varies according to the condition of the net. A brand new net sea, must be applied with preservative, i.e., the juice of *garan chhal* before setting in the sea. Then it is brought again and treated in the same way as noted above after four or five days. In the third stage, it is to be treated after setting for about seven days. In the fourth stage it is to be treated after about ten days and in the fifth stage after about fifteen days. In this way the time span is gradually increased. Ultimately, the strength of the fibres of the net is increased and it turns black.

A brand new net requires about half a maund of *garan chhal* for *jag* and about fifteen seers for *bor*. In the next stage, about ten seers of *garan chhal* are required for *jag* and about eight seers for *bor*. The *garan chhal* used to prepare the juice for *bor* is boiled in the same juice which is used once for *jag*. This is done for economic reason. Generally, *garan chhal* is used once only, and, in case of scarcity, it is crushed into finer pieces and piled with some new ones and boiled together.

Some superstitious beliefs are also connected with the applica-

tion of preservative. It is believed that if any member of the fishing unit feels, even before it is due, that the net should be treated with preservative, his feeling is given due weight and the net is treated accordingly, lest any ill luck befalls and the net is damaged. Nevertheless, it also gives some sentimental support, even at the cost of some economic loss, to a fellow worker.

The nets are soaked in the juice of *garan chhal* collected generally in a half barrel-shaped pot, known as *gaber donga* or *gaber nao* (Fig. 22). It is made of wood and tin sheet by a carpenter who is traditionally known as *sutar* by caste. It costs about Rs 100. But now-a-days some 'lower' or 'intermediate' castes, like *Namasudras*, *Mahishyas*, etc., have learnt this art and are doing the job. But the 'higher' castes, like the *Brahmans*, are not coming in this field.

It is worth mentioning here that a wet net becomes quite heavy (10-12 maunds). When preservative is applied, about ten to twelve persons are required to place it on the rack (*daur*) to get it dried. At that time they chant a rhythmic verse which runs as follows: 'The mother has served the meal with palatable dishes, so let us hurriedly finish our work, so that we can enjoy the dishes and the affection of our mother'. It is quite obvious that in doing such strenuous work some melodious rhymes minimise the physical exertion and help them to apply the pull at one and the same time. But the content of the rhyme is otherwise significant as it gives an indication of their yearning to project their family life in the transient society where love and affection of their mothers are wanting.

When the fisherfolk return to their natal village at the close of the fishing season, they thoroughly wash their nets in sweet water and dry them in the sun. After that the nets are firmly packed in bundles and kept in tact in their store room. Before storing, the nets are not treated with the juice of *garan chhal*, for it is said that it would damage the nets. Incense is burnt there in the store room as a mark of reverence.

(7) The boat

The boat is known as *nauka* or *nao*. For their fishing operation they depend on their country boats. In East Pakistan they used to operate dugouts, known as *saranga* or *saranga nauka*; but now-a-days in India they use plank boats known as *nauka*. Mitra (1953) has given a list of different types of boats that are in use today in West Bengal. However, here only two types of boats used by the fisherfolk are described below.

(a) *The Saranga* (dugout canoe): "The *Sangara* vessels, termed *Monoxila*, by the Greeks, are met with in various parts of India, and are used both in coastal and inland navigation. In some of the eastern districts of Bengal, as Dacca, Sylhet and Mymensingh, this type of boat is called Saranga. It consists, as the Greek term implies, of one tree or timber, which is scooped out to form the hull of the vessel, two or more tiers of planks being generally placed on each side to enlarge its dimension" (Taylor 1847: 7).

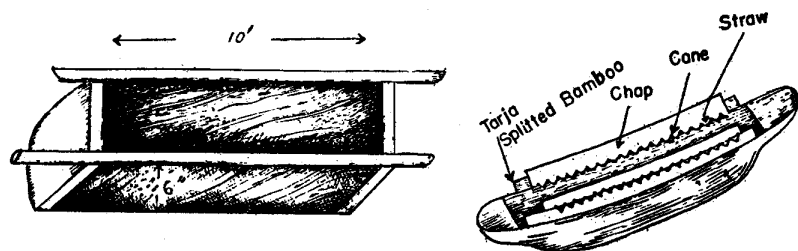


FIG. 22. GABER DONGA (Container of Preservatives)

FIG. 23. DUG OUT (SARANGA)

It is made by the carpenter from a single block of wood (Fig. 23). It requires a special type of tree, viz., *chamalish*, *kandwip*, *jamari*, etc. These trees are found in abundance in the hills of Rangamati in the district of Chittagong. The Maghs import it to the plains from Rangamati and dispose to different mahajans who are local Muslims, Hindus, or Marwari Hindus. Before their disposal to the mahajans, the Maghs crudely scoop them out as a preliminary stage to finished dugouts. This stage of crudely chiselled logs is known as saranga. The length of a saranga is about seven *baum* and the breadth is about eight *pa**

The fisherfolk purchase the saranga from the mahajans. After that they are finished by the carpenter.

To give the saranga a boat shape, the carpenter paints the inner side of the dugout with coal tar, locally known as *ganga jali*. Then he goes on tempering from outside by means of fire. Simultaneously, pressure is added wherever necessary. Some blocks of stones are kept inside the dugout to add pressure. Some semi lunate shaped wood (*baka*) are fixed at the inside bottom at regular intervals to keep its form in tact and to give additional strength. Two sides of the dugout

*Pa is the length of a foot which is used by the fisherfolk to measure the breadth of a boat.

are further raised by fixing some wooden planks placed longitudinally. These planks are tied the dugout proper with canes as shown in Fig. 23. The gaps between these additional planks and the dugout proper are firmly plugged with straws tied with canes. All through this region a splitted bamboo (*tarja*) is also tied from outside by means of the same cane. Not a single iron nail is used in saranga. The greatest advantage of saranga is that it never sinks down due to the quality of the wood and also due to the absence of any iron nail, the effect of salinity is minimised.

But here in West Bengal, wood of such quality is not available. So they have to use country-made plank boats. Even now there is one saranga in one of the fishing units at Bakkhali. The owner had brought it from Chittagong while migrating to India and he is also very proud of possessing it.

(b) *The Nauka* (plank boat): Plank boats are commonly used by the fisherfolk for their transport (Figs. 24, 25).

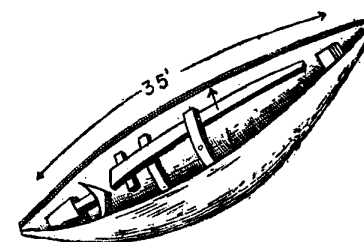


FIG. 24. PLANK BOAT (NAUKA)

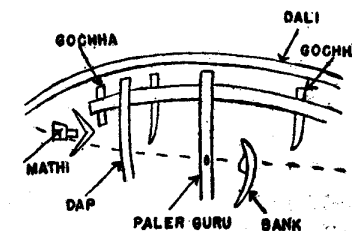


FIG. 25. SAGITTAL SECTION OF PLANK BOAT

Making of boat is the job of a specialist who is *sutar* (carpenter) by caste. But some other 'lower' or 'intermediate' castes have now-a-days learnt this are and are doing the job of the carpenter. Balagar is an important centre of boat-making and boat-selling.

There is a central keel to both sides of which planks are added for the hull. They are joined together by means of a special type of flat iron nails, known as *patam*. The slight gaps between the two planks are filled with jute fibre and coal tar (*ganga jali*). The projected prow and stern are lacking in these boats. The marine fisherfolk prefer that the hull of their unloaded boat should not rise beyond three feet above water surface, so that they can easily handle the net floating on the water surface. Again, if the hull rises less than two feet, it has the possibility of sinking while pulling the heavy net over to the boat at the time of removing the catch.

Most of the boats are rented, part of which is paid in advance,

during the months of Sravan-Bhadra (July-September) as will be seen from Table 19.

Table 19. Number and rent of boat

Approximate loading capacity (in mds.)	Rented boat			Own boat number	Total
	No.	Range of rent (in Rupees)	Average rent (in Rupees)		
50-75	12	140-250	191.66	3	15
75-100	6	150-240	177.50	1	7
100-125	3	180-200	190.66	—	3
125-150	1	150	150.00	—	1
150-175	2	100-200	150.00	—	2
175-200	—	—	—	—	—
200-225	1	200	200.00	—	1
Total	25	100-250	183.48	4	29

From Table 19 the following salient features are seen.

(1) The loading capacity of the boat has a wide range of variation (50-225 mds.) and the highest frequency (12) is occurring within 50-75 maunds. The main concern of the fisherfolk is to carry their daily catch from the net to the shore and to stay with their nets in the sea. So they definitely feel more secure in renting a bigger boat. But it is not always possible due to scarcity of such big boats. But to carry their catch, they generally do not require more than seventy-five maunds capacity boats. Rather, they prefer such small boats (within 75 mds.) as it is easy to ply.

(2) Most of the boats are rented; out of a total of twenty-nine boats, twenty-five are rented and only four are self owned.

(3) The seasonal rent of the boat varies from Rs 100-250 giving an average rent of Rs 183.48. The rent of the boat does not seem to vary according to capacity of carrying load. It may be due to the fact that there is a scarcity of the supply of rented boats. So the owner of the boat demands the rent as high as he can. Moreover, due to non availability of boats, the bahardar may have to offer any amount for a boat without considering money and loading capacity, for the entire amount of money that he has invested would have been wasted for want of the boat.

Besides these, it has been found that each unit should have at

least two boats to run their business, as has been noted earlier. Out of seventeen fishing units, twelve have two boats each, and five poor and small units have to be satisfied with one boat each (3 with 50-75 mds.) of carrying capacity, one with 75-100 mds. and the other with 100-125 mds.

The fisherfolk use single sail, as *badam* (Fig. 26), in their boats when necessary. The oars are used by tying them along both the edges of the boat (Fig. 27). Except the steerer, the crewmen are to face opposite the direction of their destinations to operate the boat.

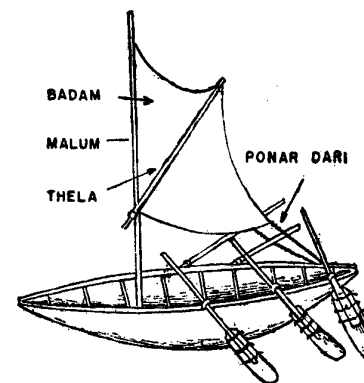


FIG. 26. SAIL OF THE BOAT

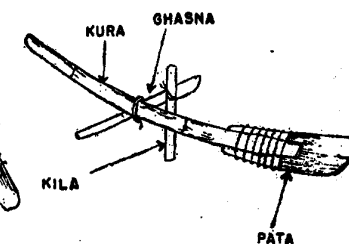


FIG. 27. OAR

B) Techniques of fishing

(1) Operation of the net

The selection of site for setting the net requires considerable experience. Special type of clay, depth of water etc., are to be considered for the purpose (Chapter IV).

The site where the net is set is known as *ghai*, which is invariably found in khari (Fig. 10). The knowledge of good location of a *ghai* is kept secret by the fisherfolk. Even the father does not want to disclose it to his son who is living separately. There is a folk story prevalent in their society. It runs as follows:

A father had found a good site from where he was regularly hauling very good catch. But his son was not getting any catch continuously for three or four days. He engaged his mother to find out his father's spot. When the mother tried to get it from the father, he became furious and remarked, 'With a slap I will throw you under the thirty cubits depth of water'. Further, he remarked, 'If my son is a real fisherman, he will get the clue net

of it'. The clue here is that the spot is in thirty cubits depth of water. Getting this clue, the son got bumper catch the next day.

The fisherfolk feel perturbed and become jealous if others are more successful in the pursuit than they are. They attribute it to the unfriendly behaviour of the fish, they are so much attached to. Their uneasiness and mental condition is linked to that of one living with an unfaithful and unchaste wife as the popular saying goes. This clearly shows their attachment to fish and fishing.

However, after the survey of the area, when the spot is selected, two boats are firmly tied together longitudinally. The goja and tana are fitted in advance with the wooden post (khunti) as shown in Fig. 21. Then the two khuntis are planted vertically in the sea bed with the help of a wooden hammer, known as *bio* (Fig. 28). It is made either by the carpenter or by themselves. A very hard and heavy log of wood, preferably of tamarind or *babla* tree, is selected for the same. It is made hollow from below upto about 4" above the *navi*. The *navi* is a longitudinal opening through which the water that enters into the hollow part of the *bio* can pass during operation. There are two *navis* diagonally opposite to each other. Just above the *navi*, there are two holes through which a strong rope is tied to pull the heavy *bio* during operation. At the top of the *bio* a bamboo handle (*chhaker bans*) is firmly fitted.

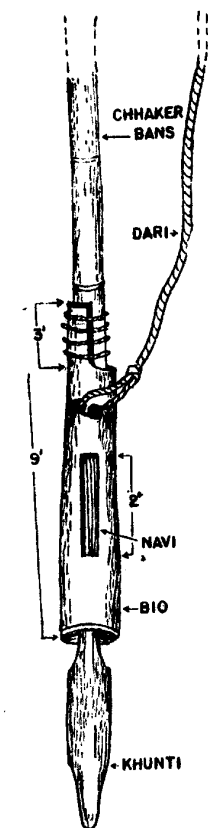


FIG. 28. WOODEN HAMMER (BIO)

At the time of planting the khunti in the sea bed, two boats are longitudinally tied together keeping some space between them. Then the blunt end of the khunti, to be planted, is inserted through the hole of the lower end of the *bio* and thrust in the sea bed. Four or five persons holding the bamboo handle of the *bio* go on hammering on the khunti vertically. Simultaneously, two or three persons alternately pull and release the rope, tied to the *bio*. The process is repeated till the khunti is firmly planted.

In this way, two khuntis are planted at a desirable distance. The distance of the two khuntis depends on the length of the mouth, i.e.,

the opening end of the net, total length of the net, and the depth of the water, so that it can provide sufficient space for the net to rotate freely with the direction of the water current. Otherwise, the lower end of the long net might get entangled to either of the khuntis. In planting the khunti, proper care must be taken so that the lower end of the *mur kachhi* does not enter into the sea bed and cause friction to the wire rope. The man who holds the *goja* can feel the jerk when the lower end of the *mur kachhi* just touches the sea bed due to constant hammering on the khunti. If the ground soil is not very sticky and/or the net is a big one which will have to withstand more water pressure, two khuntis are planted together on both sides of the net to give it a firm hold. When the khuntis are thus planted, it is known as *phar*, and the process of planting is known as *phar-gara* or *phar-deoa*.

Special care is taken for the *phar* of a net. No other net can be set in front of or behind any *phar* upto a considerable distance during the whole fishing season.

They have developed this convention for mutual benefit so that no one loses their catch either of *joar* or *bhata*. If one net is set in front of or behind another net, one will lose its catch of the *joar* and the other of the *bhata*. They have, however, a conventional way of determining the distance to be avoided (Chapter VIII). This may be called the tenancy right of the fisherfolk. A sort of tenancy right in the fishing ground has also been referred to by Epstein (1962:20) in his study of the fisherfolk of Bahian Coast.

When the *phar* is made ready, the two sides of the mouth of the net are fitted with the upper end of the *tana* to both sides of it. Then the lower end of the funnel-shaped net is firmly tied with *chal dora*. The two fangs are also fitted with the *chokh* of the net, as shown in Fig. 21, to keep the mouth of the net open.

Now, the operators wait in the boat which is kept tied with the net by means of *ghair kachhi* and drops the net when the water current begins to flow. Due to the velocity of the water current, the whole net with its floats go down the water level when it is impossible to pull it again.

The operators from their experience have developed an indigenous way of balancing their small country boat. They lie down in it in a crosswise fashion—the head of the one points towards the foot of the other alternately. Epstein (1962:18) has also observed some other indigenous ways of balancing the fishing boat of the fisherfolk in Bahian Coast.

However, the operators go on waiting in the boat. The fish with

the current of water enter into the net through its mouth and accumulate in the lower and narrower end. When the joar or bhata is complete, the water becomes almost static. At that time, the mouth of the net comes above the water level with its floats. Then the operators pull the lower end of the net with the help of the chal dora over to the boat in order to remove the catch by opening the lower end. The process of collecting the catch from the net is known as *jal-doano*. Sometimes, due to the velocity of water, the khunti is uprooted or the net turns in such a way that the fish are not hauled.

It is important to note here that the catch may be removed only during the short span of the transitional period, i.e., the end of joar (tide) and beginning of bhata (ebb), or the end of the ebb and the beginning of the tide. Its time span also varies according to lunar day (*tithi*) decreasing towards new moon (*amabashya*) or full moon (*purnima*). So the fisherfolk have to remove the catch very hurriedly during that short period. As such, the nets of a unit are not set far off from each other to minimise the time of their movement from one net to the other when they have only one boat for that purpose. Normally, the nets are set ready throughout day and night.

(2) Arrival of the catch on the shore

The hauls are carried to the shore by boat. Till it is brought, the members on the shore pass anxious moments, particularly if the weather is bad and if the scheduled time is over. Under such a situation, the bahardars with their members of the khunti are observed to move restlessly on the shore awaiting the arrival of the scheduled boat. It is but natural that, besides anxiety about economic loss, they affectionately feel for their fellow workers. They cannot live peacefully in the khunti when their fellow workers are on the sea constantly facing dangers to life.

The fisherfolk have very sharp eyes. From a very long distance they can identify their boats, particularly if the sails are on. The sight of their boats returning with catch cheers them up. When one by one the boats return from the sea with the catch, the other unit members, not to speak of their own, also go there to watch the haul. In case of a very good haul, it has been observed that a piece of cloth, preferably red, is hoisted like a flag in the boat and the crewmen return to the shore raising various slogans like *Ganga-mai-ki-jai*, i.e., glory to the deity Mother Ganga, etc. Their cheerful mood is also expressed in various types of *bhatiali* songs (Appendix K). In case of any calamity also, a piece of cloth is hoisted like a flag in the boat. Observing this flag the passing boats enquire the reason thereof.

However, when the boat is a little off the shore, the members of the respective units gather there with baskets and a big spoon (*belcha*) to collect the catch.

When the fish are collected in the basket (Fig. 29), they are washed in the sea water and carried to the khunti generally in hanging position with a hanger (*jhaitka*, Fig. 29) on the shoulder of two persons, and stacked over a bamboo mat (*chatai*) spread in the place allotted for sorting the fish. In the absence of *jhaitka*, two persons carry the basket holding its two handles.

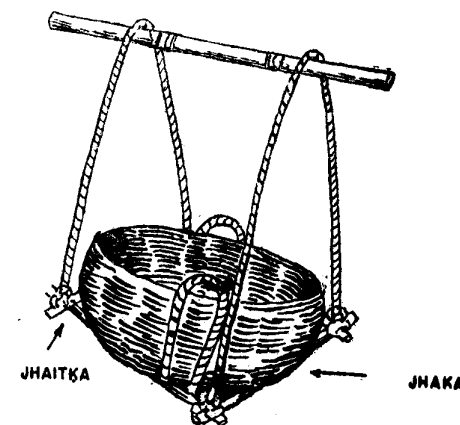


FIG. 29. FISH CARRYING BASKET (JHAKA) AND HANGER (JHAITKA)

(3) Sorting

(a) *Sorters*: In Frasergunj and Bakkhali, which are situated on the coast of southern Sunderban, sufficient number of professional sorters is available. Some are local while many others are migratory. They are all Kaibarta by caste.

The migrants are from distant places, like Bongaon (24 Parganas), Ranaghat (Nadia), etc. They originally belonged to Chittagong and Noakhali districts of East Pakistan. They comprise mostly of poor old widows. They come and settle near the fishing camps in small temporary shelters in the fishing season. Each such unit has a separate establishment.

They get, for their service, a small portion of the different varieties of fish so sorted and the discarded fish and crabs. They dry them and sell them at Rs 5 a maund to the Fishery Department,

Government of West Bengal, at Frasergunj, as *meja**. The latter, after treating it, sell it as poultry food.

At Jambudwip, there are three such sorting units.

Unit 1: It is composed of an old widow, about 60, with her two grandchildren (one male and another female) hailing from Kumar-khali, P.S. Bagda, District 24 Parganas. On the 17th Kartik they started business at Frasergunj. In course of time, with the failing of sufficient catch, they were thrown out of employment, as the members of the fishing units did the sorting operation by themselves. At that time, the Government Fishery Department came to their relief. They helped them to shift to Jambudwip. Of course, it also helped them to push on with the *meja* business. So, in the beginning of Aগ্রহায়ণ, they moved to Jambudwip and pitched their lean-to type hogla shelter by the side of the fishing unit number IV. There they started their sorting operation afresh.

The grand-daughter also attends to the same unit members to arrange the hubble-bubble for smoking now and then, to which the fisherfolk are very much addicted. As the sorting unit is just by the side of unit number IV, the latter feels it a moral obligation to allow them to sort their catch and be thus remunerated.

They may also attend to the other fishing units if their services are requisitioned when a big haul is made and when their respective unit members are not sufficient enough to cope with.

In this way, the total sale of *meja* and different varieties of dry fish of this particular sorting unit came to about Rs. 400 for the year 1967-1968.

Unit 2: This unit is composed of a father (60 years) and a son (12 years). They belong to the Kaibarta caste. They are migrants from Noakhali and now settled in village Basudevpur, P.S. Magra, District Hooghly, wherefrom a large number of fishermen have come to this island.

This unit is situated on the southern side of the island and its services are mainly sought by the fishing units in that part of the island. Besides sorting, the service of the poor old man is also sought in different fishing units for mending the net, for collecting firewood, etc., at the rate of Re. 1 to Rs. 1.50 a day in addition to food.

Unit 3: A single individual, forming this unit, is aged about seventy years. He originally belonged to Chittagong, now settled in

*The Fishery Department at Frasergunj collect *meja* from different fishing units also. A list of the total collection of *meja* from Jambudwip is added to the Appendix E.

the village Raghampur, P.S. Bagda, District 24 Parganas. His village is about eight miles from that of sorting unit number I and both are known to each other.

As a matter of fact, this old man did not come to the island as a sorter. Previously, he came to Frasergunj with a hand net (*thala jal*). But, later on, he came here and temporarily settled in a lean-to type shelter by the side of sorting unit number I.

During ebb and tide, he operates his hand net in the creek or near the shore. His collection is mainly shrimp, and he gets about 3-4 kilograms a day on an average. He disposes of his catch to the fresh fish *aratdar* on the spot. The rate offered by the *aratdar* is very low. Shrimp is sold by him at 25 to 30 paise per kilogram to the *aratdar*. Besides that, he also works as a sorter during the off time.

It may be added that his company helps the members of the unit to break the monotony of the boring island life. The minors cut jokes with him and tease him off and on. Of course, when it goes to the extreme, he does not spare them. He is also found to bring it to the notice of the bahardars and even to the present writer. But they all take it in a light vein and enjoy it all the more. In his normal moments, however, he also realises that "these fellows just enjoy with me—what else can they do here—after all they like me". They help him in procuring his necessities and look after his comforts in case of ailments.

(b) *Method of sorting*: Sorting of fish is normally done by the members, both minor and old of the respective unit. They are recruited to do so on the shore. There are, of course, two or three professional sorting units in the island of Jambudwip, as has been noted earlier.

When the fish are brought to the khunti after washing them in the sea, they are spread over a bamboo mat. Eight to ten persons then sit face to face on both sides of the mat. Some of the sorters take bamboo knives (*kaittani* Fig. 30 A and B) in their hands to spread the fish thinly on the mat to facilitate sorting. The fish are sorted according to the typological basis but not on size. During sorting, they discuss among themselves various topics connected with fish or fishing or other related matters. At that time, the agile members of the unit also tease others in various ways in light vein, for instance, by throwing a fish over one's head or cutting jokes with each other. Sometimes, the bahardar of the shared unit are also found to join them, but the bahardars of the salaried ones scarcely join the party. Generally, they move with an air of superiority.

(4) Method of drying

The method of drying of fish is very simple. Besides washing the fresh fish in saline water of the sea, no additional salt is added to it.

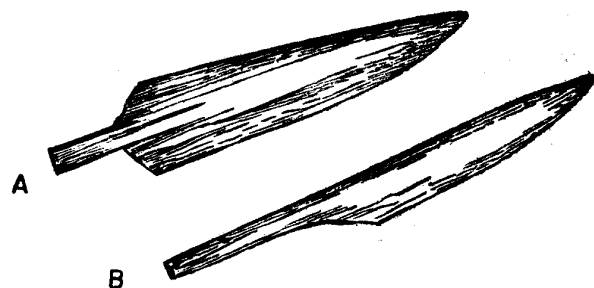


FIG. 30A&B. BAMBOO KNIFE (KAITTANI)

The small fish, like bhola, phesa, etc., are not cleared off their guts. After sorting according to their type, each variety is thinly spread separately in the open courtyard (khola) to be dried in the sun. They are turned at least once a day. After they are half dried, they are removed over to the fish drying platform (khang Fig. 4). There the fish are left exposed to the sun for two or three days and turned from time to time to get them thoroughly dried. In case of falling of heavy dew in the night, they are sometimes covered with gunny bags, or so. But, generally, no care is taken to protect them from the falling dew. But, in case of rain, they are removed.

Amongst the small varieties, teltapri and white phesa are dried over the drying platform all through instead of initially drying in the open courtyard. It is due to the fact that these two varieties of fish take much time (about four to five days) to be completely dried up, as they contain much fatty substance. For this much oily content, they are easily exposed to the attack of insects. Hence, they are properly cared for.

Incidentally, it may be noted here, that the fish infested with insects are removed from the collection lest the whole stock is spoiled.

The laitta (Bombay duck) fish are taken much care of in drying. Two fresh laitta fish are stuck mouth to mouth through their gills and hung over the horizontal bar of the daur (fish drying rack, Fig. 3), so that the two fish fall on two sides of the bar. It is said that if the fresh laitta fish are spread over the khola, they become flattened and will fetch less price. But, if they are dried over the daur, their cross sections become circular and give better look and bring better price.

The chhuri fish are initially dried in the khola to get those leather hardened (Fig. 31 : 1). Three chhuri fish are then taken together, and with one stroke on the floor they are freed of sand and straightened. In the same way, another bunch of three chhuri fish are treated. Then the two bunches of chhuri fish are tied together at their tail end (Fig. 31 : 2) and are hung over the daur specially prepared for the purpose to get them fully dried (Fig. 31 : 3). Finally, they are removed from the daur, and each bunch consisting of six chhuri fish are placed one above the other and finally tied together with rope to make different bundles (Fig. 31 : 4).

The big and fleshy varieties of fish like chela, kamot, saplapata, pomplet, maitta, med (ghongra), bara (big) bhola, datni bhola, titmuri, etc., are known as gachh-machh. They are either cut into pieces or longitudinally splitted and hung with ropes to be dried. Their guts are also removed. The titmuri fish has a bitter taste. So its head is severed and the body is hung downwards with its tail up, so that all its blood may trickle down and the bitter taste is lost.

When the fish become completely dry, they are packed in gunny bags or just stacked temporarily on the floor of the storeroom for final transportation to the arat. The floor of the storeroom is covered with straw or jungle grass to make it damp proof.

The rate of decrease of the weight of the fresh fish after drying varies considerably according to the types of fish. The approximate rates of decrease of some of the fish are given in Table 20.

Table 20. Rate of decrease in weight after drying the fresh fish

Serial No.	Types of fish	Weight in kg.	
		Fresh	Dry
1.	Laitta	5.000	0.900
2.	Chhuri (kekke)	5.000	3.250
3.	Phesa (pata)	5.000	3.250
4.	Teltapri	5.000	3.250
5.	Halud chingri	5.000	1.500
6.	Bhola	5.000	2.750
7.	Kanta, med, etc.	5.000	2.750
8.	Sankar, saplapata, and other varieties of gachh-machh	5.000	3.500

Thus it is seen that the rate of decrease of the weight of fresh fish is highest in case of laitta, and lowest in case of fleshy varieties of gachh-machh.

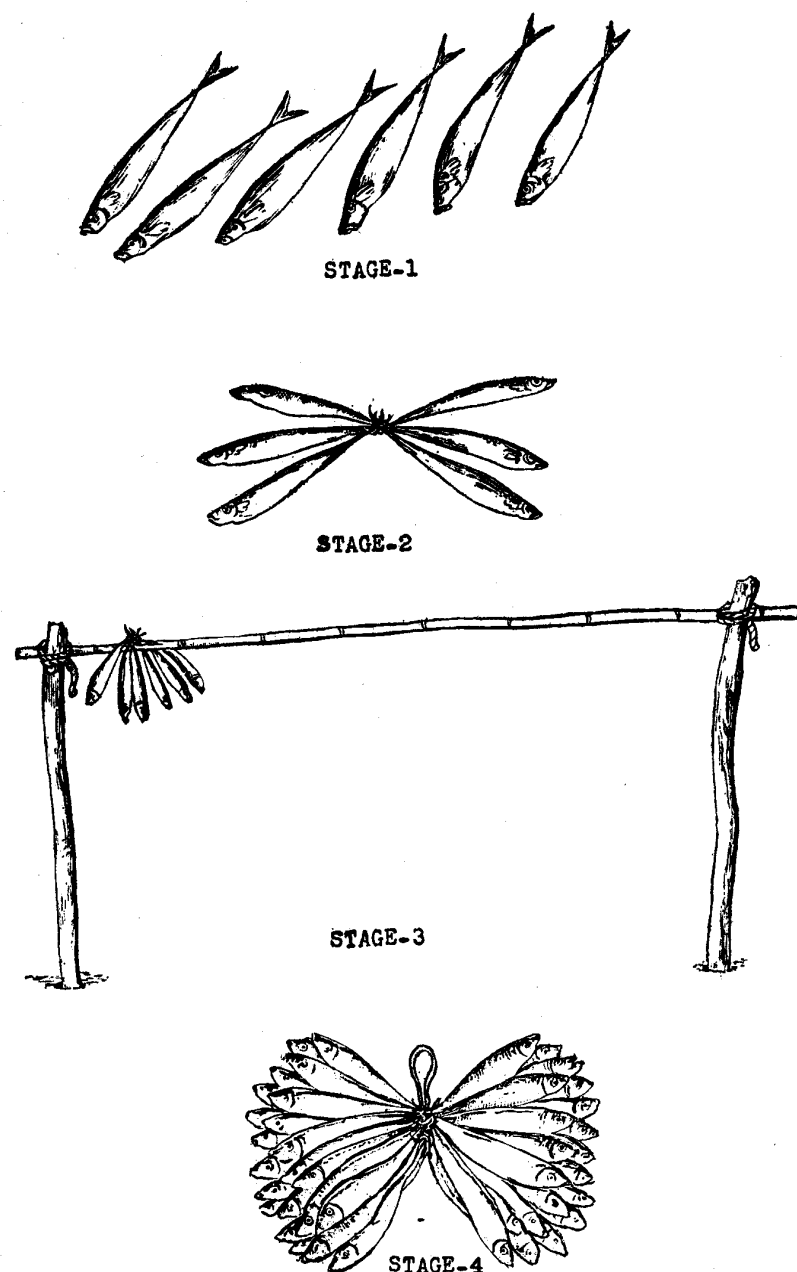


FIG. 31. DIFFERENT STAGES OF DRYING

Besides drying their catch for commercial purpose, it was observed that at the close of the fishing season, some members of the fishing unit, particularly of the shared units, preserve some 'good quality' fish with salt for their consumption at home. For this purpose, the fresh fish are generally cleared of their gullets, and sufficient quantity of salt is added to it and tightly wrapped with gunny bags.

DISCUSSION

The study of the technology of the marine fisherfolk described above in detail reveals that it is a highly specialised art. It requires skill at every stage of its preparation and operation. By long experience they have mastered all these in minute details, and they profitably utilise their knowledge of the immediate environment, gathered through prolonged and intimate observation and inductive reasoning, for a successful haul.

The core of the fishing technology, i.e., the preparation and operation of the net, is solely monopolised by the fishing castes. The non-fishing castes have no role even in simple knitting of the net, not to speak of the most complicated part, such as the knitting of the chokh.

They are so much intimately connected with the net, the main apparatus for their livelihood, that they look upon it as a living human being with all its feelings and have gone so far as to name its different parts as eye, hand, mouth, etc.

The other important gear of the fisherfolk is the boat. For economic reasons, very few of the fishing units have boats of their own. So, they hire them from different sources, mostly from the Rajbanshis and Muslims, with whom they maintain a symbiotic relation. It is also noticed with other members of the peasantry to whom they are indebted for other accessories of the fishing industry (for details, see Chapter VII). For construction of the boat, they depend on the carpenter belonging to the Sutar caste, although minor repairs are done by themselves. It is rather paradoxical that they have to depend mostly on non-fishing community for their boat, although it forms such an important and integral part of the fishing operation.

What seems to be significant here is that boat is not the monopoly of the fishing castes alone, although it plays a very important role in their life. The importance of the "boat trade on rivers, is, for magnitude and variety, quite unique in India" (Hunter 1885:310). Naturally, other members of the peasantry are also involved in it.

Coming to recent trend it seems that both tradition and economy work as constraining factors to the acceptance of innovations. Thus, the use of nylon thread, a very costly affair has been adopted only to prepare the gill net as the amount of thread required in this type of net is less and that it has been found advantageous by some enterprising fishermen. But they have refrained from using it for bindi jal, as it requires a huge amount of thread which they can ill afford. Of course, they rationalise this by stating that the nylon thread being very light is not suitable for bindi jal, as this type of net must sink down with the flow of water, and, therefore, hemp thread is best suited for the purpose. Under the situation, the poor fisherfolk are afraid of taking up any experiment which needs investment of a huge amount of money. In the same way, the farmers "were not unwilling to adopt a seed of proved worth, but showed great hesitation to experiment with items about the merits of which they were not convinced" (Dube 1958 : 64). In evaluating the spread of the Community Development Programme in India Berreman (1963 : 94) has also referred to economy as an inhibiting factor.

Besides these, another reason which stands in the way of using nylon thread is its white colour. It has been stated that the whiteness of the colour of the nylon thread easily attracts the shark, and other such marine fauna, which causes damage to the net. So, the gill net of nylon thread is coloured dark by applying preservatives in spite of repeated instructions of the government officials that the synthetic nylon thread does not require any preservative to counteract salinity of the sea water. Their concept of beauty of the net lies in its dark colour. Further, in their view, the net with preservative lasts long. Here, it seems, the tradition plays a very important role and the conflicting situation is brought to a compromise by changing the colour of the white nylon thread.

The conspicuous absence of any mechanised fishing in coastal West Bengal may largely be attributed to the poor level of economy of the fisherfolk and absence of well organised economically sound co-operative society. On the other hand, mechanised fishing has largely been adopted in Gujarat coast (Hajra 1967 : 50) with the help of well organised co-operative society. It is not unlikely that sea fishing on a large scale commercial basis is being practised in the Gujarat coast for many years, and, hence, the whole fishing complex has become more or less crystallised in that region ; whereas in West Bengal coast, it is a recent development started since the refugees from East Pakistan probed into this field with their experience. The introduction of a system of carrying the hauls from two or three net

groups to the fishing camps by a common boat, instead of independent arrangement by individual party, may easily save huge man power and time. The absence of such a system is not due to any economic reason but due to sheer lack of initiative from any enterprising bahardar.

SUPERNATURALISM AND RITUALS IN FISHING

An attempt has been made in this chapter to delineate the ritual context of the adaptation of the marine fisherfolk. It has been noted earlier that marine fishing is a hard techno-economic task. In order to muster some strength of mind to face the risk of great uncertainty in catch and danger of the environment the fisherfolk are in constant look out for systematic support from supernatural beings. They have, therefore, naturally developed a certain amount of fatalism in their world view.

It will be seen from the following pages that right from sailing out from their natal villages to return home, in all phases of fishing activities, series of rituals are performed in order to scale down the margins of their occupational hazards and to help their conceptual and sentimental adjustment to the natural environment.

A. *Evil eye and amulets*

As the life of the fisherfolk is always in danger and the catches are often uncertain, they have a strong belief in supernaturalism. Beliefs in witchcraft and the magical power of amulets are widely prevalent among them.

The success in fishing largely depends on the majhi. He and his crewmen are sometimes found to put on amulets made of *astadhātu* (eight specific varieties of metals) with a length of three and a half *kār* (one-third the length of a digit) of the left little finger. The amulet contains charred wood of a funeral pyre collected in a new moon night, preferably on Saturday. The collector must be stark naked on that occasion.

Besides this, the majhi and the crewmen may also be found to keep the spine (kanta) of the *surjamukhi** variety of sankar fish in an amulet round their waist. This particular spine is supposed to be very poisonous. Further, it is said that the spine of the baby *surjamukhi* sankar fish collected from the womb of the mother fish, or of one

*Some of the sankar fish have one, while some others have two or three spines in its long tail. The *surjamukhi* variety has three spines in its tail. Of these one is specially sharp and dazzling white when held against the sun. So it is known as *surja-mukhi* (*surja* means sun and *mukhi* means facing).

just born, is most effective if that can be collected unnoticed by any fellow worker.

It is important to note that owing to their long association with the sea and its creatures, they have developed some clear idea of the characteristics of these creatures, and an institution of magicians (*ojha*) has developed particularly to counteract the bite of the poisonous sea snakes and other similar creatures of the sea. Two such *ojhas* were met in Jambudwip. Further, it is observed that the fisherfolk consume the tip of the spine of the baby sankar fish with the belief that it will help them to withstand the poisonous sting of it.

The fisherfolk also have a strong belief in evil eye, evil spirit and evil mouth. It is believed that sometimes fishes cannot be hauled because of evil eye and evil mouth. As a precautionary measure, some chanted water is brought from the natal villages. It is sprinkled around the khunti area at the time of its establishment. The chanted water is also sprinkled over the nets and on the places where the nets are set. A definite procedure is to be observed in order to get the chanted water, known as *saran para jal*. The bahardar, or any other person who knows the secret of the art, should collect the water from the western bank of a pond which is not connected by any channel with any other water source, early in the morning before any bird, like crow, gets down. This type of pond is known as *bandha-pukur*. The water is to be collected in one breath, and then the collector should go on reciting incantations and sawing the water, so collected, in the pot with some toothed implement, like sickle. Before leaving the village for fishing, the bahardar sprinkles this chanted water over his nets and crewmen.

It should, however, be noted here that the fisherfolk are not solely, or even mainly, guided by superstitions. Some rational considerations are also there. When it is seen that the fishes are not entangled for some technical defects or for some identifiable natural causes, rational steps are taken to meet these exigencies. But, if any technical defect cannot be detected and when it is seen that others are getting sufficient catches just by the side of one's net, such unaccountable mishap in hauling is believed to be the effect of some evil eye or evil mouth. Then the chanted water is sprinkled over the spot.

B. *Preparation of fishing gears*

The boat and the net are the two most important fishing gears of the fisherfolk. Rituals connected with them are as follows:

(1) *The boat*: The carpenters are the specialists in boat making. On the day of laying the keel of the boat worship of *bir* (a deity) is performed by the 'caste priest' of the owner with fruits and flowers. When the boat is built completely, it is again worshipped with fruits and flowers. Married ladies smear the stern and prow (*galai*) of the boat with vermilion and mustard oil. They also greet the boat with *baran dala*, i.e., a winnowing fan containing some varieties of cereals like paddy, peas, barley, an earthen lamp, water, blades of grass, mango twig, etc., for the purpose of greeting. Some sweets are also distributed on this occasion. When a boat is purchased and brought to the house of the owner, the ladies also similarly greet the boat with *baran dala*.

The presiding deity of the boat is believed to be *Kastha Devi* among the fisherfolk of West Bengal and *Kastha Durga* among those of East Pakistan refugees. Both consider the deity as a female one.

The fisherfolk of West Bengal have a strong notion that if the *majhi* (steerer) of the boat leads an austere life while on boat, his boat generally does not face any disaster. It is also believed that the deity gives indications in a dream of some imminent danger of the boat and its crewmen. The presiding deity is also supposed to give indications about the location of a successful haul. Sometimes, the boats are also believed to emanate some peculiar sounds which give indications of some imminent danger. Such boats are known as *sajag-nauka* (i.e., lively boat). Many stories are connected with this type of boat in their society. Further, it is believed that in case of disaster or loss of such a boat the deity gives in dream indications of its whereabouts. But the steerer or the owner of the boat must be expert in interpreting all the indications, either direct or indirect of the deity.

It seems that the concept of the presiding deity of the boat is more dominant among the fisherfolk of West Bengal than among East Bengal refugees (Mukherjee, Raychaudhuri and Moitra 1967). It will, however, be seen from the following pages that the fishing rituals, as such, are more elaborate in the latter group.

(2) *The net*: The net consists of different parts each with a distinct term. Some rituals are also connected with the preparation of the net. The number of meshes in a net to be prepared (i.e., the size of the net) depends on the *rashi* (the position of the planet) at the time of birth of the owner of the net. The number of meshes is counted in terms of *kuri* (twenty) and it varies from fifteen to seventeen *kuris* at the mouth of the bag shaped nets. It may happen that

just fifteen or seventeen *kuris* do not tally with the *rashi* of an individual. In that case, some two or three meshes are added to, or subtracted from, the number.

It is believed that preparing the net not in accordance with the *rash nam* will mean some disaster to the owner or to the net. On the other hand, successful catch is expected if the net is prepared in conformity with the number of the *rash nam*. Some stories are also prevalent in this context in their society.

Some days, like Thursday, Saturday and Sunday, are thought inauspicious for beginning to make nets. So, they are avoided by some orthodox fishermen. Most of the fisherfolk avoid these inauspicious days while joining together the different parts of the net. But everyone should begin to prepare the upper part (e.g., *chokh*) of the net in an auspicious day. It is believed that till the different parts of the net are joined together, they are separate inanimate objects; but as soon as they are joined together, particularly with one of the upper parts, and the ritual connected with it is over, they are considered as animate objects with the power to feel and see. The animate nature of the net is also reflected in other contexts. When the jelly fish chokes the opening of the meshes, the fisherfolk state that the net has 'breathing difficulties'. It is also said that if the net is not properly set, it has to face many hardships against strong current of the sea. A weathered net is also called as *bura jal*, i.e., old net. The term 'bura' (old) is prefixed to an animate object.

The most important ritual in connection with net making is *phur-basani* or life infusing ceremony. It is performed when the four *chokhs*, which are separately knitted, are joined with the main net. It is believed that it would infuse life in the net. It is performed in the following way.

It has already been said that the uppermost part of the net is known as *chokh* or eye of the net. There are four such *chokhs* knitted separately (Chapter V). When they are joined with the main net, the ritual known as *phur-basani* is performed; and it is believed that this would infuse life into the net.

Three or five married women greet (*baran*) the net with *baran dala* containing three earthen lamps, an earthen pot, vermilion, etc. One iron nail, a piece of conch shell, *bach*, turmeric, a small date palm tree having just one leaf, a little piece of gold and silver, sandal wood paste, vermilion and curd are tied together in a bundle with seven mango leaves. Four such bundles are tied to the four eyes of the net where vermilion marks are also made. Four men then sit in a

stooping posture in front of the four eyes of the net. They chew betel leaf, betel nut and green (*kancha*) turmeric (*halud*) and blow air from their mouth over the eyes of the net. It is believed that some evil spirits and the mother Ganga move in the sea. So, if the net is made impure with the air blown from the mouth and spitted over, the evil spirits who appear in the form of big sea animals would divert their route, and the net will be saved from destruction when set in the sea. It is said that if such evil spirits are hauled in the net, some ill luck is bound to befall. But the deity Ganga is seldom thought to be malevolent unless she is disturbed and if she is not properly propitiated. The iron nail has also magical power to frighten away the evil spirits.

At the time of the ritual, some fresh fish are also strewn over the net with the idea that it will bring more fish in the net. The women of the household make some auspicious sound (*jokar*) from the mouth. There is also a strong belief that no one should be allowed to take anything from the house of the owner of the newly made net on the day of this ritual, because it may bring ill luck to him or some black magic may also be performed with it. In the fishing ground, where women are not present, the crewmen perform the ritual by themselves in a miniature form excluding the part of the ritual performed by the women with *baran dala*.

C. The voyage

The day and time of the voyage is selected in consultation with the Bengali almanac by their caste priest. If a suitable auspicious day is not available in time, they follow the popular saying known as *Khanar-bachan** : *mangaler usha budhe pa jatha ichha tathaja*, i.e., one can go anywhere on the mornings of Tuesday and Wednesday.

All the crewmen assemble at the house of the bahardar for the ensuing voyage about seven or eight days before the journey. Those who operate on share system do not generally take their meal in the house of the bahardar on those days, as most of them are from the village of the bahardar or from adjacent villages. But those who work on salary basis, stay in the house of the bahardar for the week. He provides them with food and lodging. He wants to be sure about the presence of his crewmen coming from distant places. Moreover, he requires considerable man power for the last minute preparation.

*Khana is a mythical heroine, thought to be a talented astrologer. Many of her sayings are believed to have come true in Bengal.

Another important consideration seems to come into play in this connection. The crewmen on share system are close kin and belong to the village of the bahardar, as such he can assume common social sentiment with them. To foster such a sentiment the bahardar accommodates the salaried crews with the hope of developing a moral community before their departure.

It is worth mentioning here that as in share system the loss and profit are equally borne by all the members, there is a tendency for minimising the cost by joint endeavour whereas in salaried system the loss and profit of the business are borne by the bahardar alone and the other crewmen enjoy their fixed salary and free food and lodging according to the contract.

Prior to their departure, the following three kinds of rituals connected with paying offerings to deities are also performed in the house of the bahardar. This act of paying offerings is called *puja*.

(i) *Shani puja* : It is performed on the Saturday preceding their departure with fruits and flowers. Generally, all the members try to join the celebration. The bahardar must keep fasting while the other crewmen may or may not do so.

One black earthen pot with a plantain is placed in the courtyard in the evening. The caste priest performs the worship and a printed leaflet, known as *shanir panchali*, is read out. Fruits and flowers are offered in the name of the temperamental deity, Shani, to avert any danger in the sea.

(ii) *Satya Narayan puja* : The deity Narayan is also propitiated on this occasion with fruits and flowers by the caste priest.

An earthen pot is placed with a coconut over it. A leaflet, locally known as *Satya Narayaner Panchali*, is read out in rhythmic tune. The bahardar remains fasting till the ritual is completed. At the end of the ritual all are presented with offerings (*prasad*) and devotional songs depicting the honour of the Lord Hari (*kirtan*) are sung.

(iii) *Ganga puja* : The Goddess Ganga is the most important deity for the fisherfolk. Their life and success in fishing depend on her grace. So, she is propitiated by all bahardars in one way or the other on the day previous to their departure from their natal village. Those who had made special vows may sacrifice goats while others worship with fruits and flowers.

On this occasion the bahardar including all his crewmen, fast till the worship is completed. The service of a caste priest is sought for the purpose. An earthen pot filled with water is placed in the name of the deity Ganga. Locally, this pot is known as *Gangur*.

ghat. The pot is covered with a red napkin and a coconut is placed over it. But none of the fishing gears is presented there. The worshipping articles are clarified butter, honey, sun-dried rice, flowers and basil leaves (*tulsi*). Towards the end of the ceremonial rite offering in fire with incantions (i.e., *homa*) is performed by the bahardar with the help of the priest. After the completion of *homa* all should get the consecrated water (*santi-jal*) from the priest and a mark with the ash of the *homa* is made on the forehead of all the crewmen and the bahardar. On the completion of the ceremony, a feast is given by the bahardar to all his crewmen. Some friends and relatives are also invited on the occasion.

In the morning of the day of the voyage, five married women bring one *baran dala* to the river side. After this they smear the two ends of the boat with mustard oil and sprinkle some water over it. It is a symbolic bathing ritual of the boat, the presiding deity of which is believed to be the female goddess *Kastha Devi*. Then the two ends of the boat are smeared with vermilion and garlanded. Some paddy grains are strewn over it and turmeric mixed with water, thought to be auspicious and symbolically representing water mixed with gold and silver, is sprinkled with basil leaves and blades of grass. The married ladies then make some *uludhwani* and perform a process of appeasing the deity (*arati*) with the earthen lamp. At the end of the ceremony, they salute the boat and sweets are distributed to all those who are present over there. This brings to the end of the boat worshipping ceremony.

Some of the fisherfolk of Chittagong carry this *baran dala* with them to the fishing ground and bring it back home after the termination of the fishing season. It is believed that this *baran dala* has a power to bring good luck.

The bahardar then brings the earthen pot, which was installed in the name of the Ganga on the previous day, and carry it over his head to the boat raising a sacred slogan (*haridhwani*) in the name of different deities, like Ganga, Kali, Ban Devi, *Kastha devi*, Gaji (a Muslim Pir), etc. All the crewmen join in the slogan. Some of the crewmen also follow the bahardar carrying the net. In some cases the fisherfolk immerse the pot (*ghat*), installed in the name of Ganga, after the worship and carry with them to the fishing ground another pot, known as *mangal-ghat* (auspicious pot), of the *baran dala*. They smear the two ends of the boat with curd. A banana plant is also placed near the prow of the boat where the *baran dala*, *mangal-ghat*, etc., are placed.

Before the earthen pot and the net are taken over to the boat, they sprinkle some water over the boat and over their heads in the name of Ganga to avert any ill luck. Since then the bahardar does not return home till the end of the voyage. Another point to note is that the pot is carried within the auspicious period selected in consultation with the almanac and till the pot is placed on the boat the bahardar remains fasting. The bahardar stays in the boat and the other crewmen bring all the requisites. Before boarding, all the crews sprinkle some water over their heads and over the two ends of the boat and jointly raise slogans in the name of the deities mentioned above and start for their voyage.

They generally prefer to start in the morning according to the tide or ebb of the river. But if the tide or the ebb does not correspond to the auspicious time for journey, they stick to the auspicious time and push the boat a few yards off the shore and wait for the tide or ebb whichever is necessary to minimise physical exertion.

Before leaving for their fishing ground, they must purchase some scaled fish without bargaining over it. This scaled fish (*amis machh*) is thought to be auspicious. No ritual is connected with it. It is simply purchased to be consumed by them.

Besides these, the village and the family deities are also propitiated prior to their departure when all the crewmen take active part. What seems to be important is that through all these ritualistic activities a 'moral community' begins to grow even in their natal village which is essential for sustaining a unisexual transient society in their fishing ground.

The fishing units from Bihar cannot come directly by boat to the fishing ground and so they do not perform any boat worshipping ceremony in their natal village. But they worship their family and village deities on this occasion and the bahardar leaves the village with some of his crewmen on an auspicious date and time giving full instruction to his other crewmen. The residence of the mahajan or the financier in Uluberia (district Howrah) is the meeting place of all the fishing units of this region, where the final arrangement is made. It is the moral obligation of the mahajan to accomodate them all on this occasion. The mahajan becomes solely responsible for all the articles taken on credit by his fishing parties.

Those who cannot perform the rituals in their natal village, as described earlier, perform them in a shortened form by themselves obviously without the help of any woman as no woman accompany any of the fishing units.

On their way to the fishing ground the earthen pot (ghat) which was installed in the name of Ganga, is worshipped with sweets and incense is burnt thrice daily—first early in the morning, then at mid-day and lastly in the evening. The bahardar, or any other person, may perform this rite. A bell-metal plate (*kansar*) is also beaten on the occasion to scare away evil spirits. No other ritual is performed in the boat on their way. But in case of any danger, vows are made in the name of Ganga and she is propitiated accordingly. It is also believed that the deities sometimes appear in dream to any of the fortunate crewmen who lives in austerity (*suddhachar*). The deity is believed to give some indications regarding the success or failure in fishing or about any imminent danger or of her desire to have any special propitiation, and the like, and she is appeased.

Besides this, about one and a half miles off Kakdwip a special offering is made in the Satamukhi Ganga where the current is very strong and where there is every possibility of meeting with disaster. A little quantity of sweets, sun-dried rice and a few coins, and two duck's eggs smeared with vermilion are first offered in the name of Ganga near the ghat installed in her name by the majhi. Then the offerings are thrown into the Satamukhi Ganga by the respective majhis. Some also offer hair on this occasion. Some orthodox Vaisnavites (Krishna-panthi) do not offer any duck's eggs. What seems to be important here is that in case of danger beyond any human control rational activities are overshadowed by ritualistic performances upto a certain limit.

D. Setting up of the fishing camp

It is believed that in every fishing ground there is one presiding deity which is known by different names in different fishing grounds, viz., Badar Saheb (a Muslim Pir in Chittagong), Ban Devi in Frasergunj, Bakkhali and Jambudwip, Kopil Baba (Muni) at Sagardwip, Gaji Saheb (a Muslim Pir) at Rasulpur, Nai Kali at Digba area, etc. The khuntis in Jambudwip were first started by a group of bahardars who originally had their khuntis at Frasergunj. As the Jambudwip is so close to Frasergunj, the same presiding deity, Ban Devi, is thought to be hovering over the said island. Same is the case with Bakkhali.

On reaching the shore an earthen pot filled with water is installed outside the khunti area in the jungle under a tree in the name of the presiding deity of the locality. There it is propitiated with sweets and fruits by the bahardar himself. The pot and the tree are marked with vermilion and incense is burnt. A few strings

of hair of the bahardar are offered there. The other members of the unit may also offer their hair as vows for the safety of their life. They all remain fasting till the end of the ceremony. After taking their bath they all go round the tree seven times and then the bahardar performs certain rituals on behalf of the crews on the first day of their arrival. It has nothing to do with better catch but is done just for the safety of their life. Before performing this ceremony no one should do anything on the shore. At the beginning and end of the ceremony, the sacred slogans are raised by all the members of the party in the name of the presiding deity. At the end of the ceremony sweets and other offerings are distributed to all and kirtan songs are sung for sometimes.

Then the shrine for Ganga is established within the khunti area. A small hut like structure is made and different deities are installed inside. The door of the hut must face the south which is thought to be the direction of the abode of Ganga.

While on fast the bahardar carries a pot with water and installs it in the name of Ganga. Then some other pots are installed in the name of other deities. These deities are propitiated by the bahardar himself with clarified butter, honey, vermilion, sun-dried rice, banana, molasses, coconut, a particular variety of pulse (*kala maskalai*) and one napkin. A coconut is placed on the pot. Two banana and a basil plants, which are thought to be auspicious, are also planted there. Special worships are also performed on this occasion for the safety of the boats.

The crewmen remain on fast till the worship is completed. At the close of the ceremony some of the bahardars offer a few strings of hair from their heads in the name of Ganga and salute there by stretching their body on the floor and sob to seek the blessings of the Goddess. This sort of sobbing may also be noticed on other occasions, too, like annual worship of Ganga. Such intense devotion is seldom noticed in the case of agriculturists where the life and the yield are not so much insecure as in the case of fishing. After all these rites, other crewmen also salute the Goddess and distribute the offerings to all present and devotional songs are sung communally in which the members of other units are also invited.

Goddess Ganga is invariably represented by an earthen pot while some other deities, like Gaji, Ban Devi, etc., are represented by earthen mounds or earthen pots. Many other deities, like Ganga, Kali, Narayan, Ganesh, Durga, Mahadev, etc., are represented by printed pictures. But the Muslim Pir (Gaji) must be placed separately though

under the same shed. In some cases, an earthen pot may also be installed by the side of the one representing Ganga.

In Bakkhali, the presiding deity is Badar Saheb (a Muslim Pir). There the bahardars, who are mostly from Chittagong, have installed shrines for the same deity Badar Saheb, separately but by the side of Ganga. The door of the hut of Badar Saheb faces east and he is propitiated once a day in the evening and twice on every tenth day (dasami) of every lunar fortnight in the morning and evening with sweets; but vermilion is studiously avoided.

On the North Eastern side of the Jambudwip the fisherfolk of West Bengal proper have established their khunti, called *khamar*. They have open shrines where different sets of deities, like Baba Saheb (a Muslim Pir), Bisalaksmi, Banbibí, Kalurai and Dakshinrai, are represented by earthen mounds. The mounds for Kalurai and Dakshinrai are placed a little apart from the other three mounds, though in the same line. A wooden pole, representing the club of Baba Saheb, is also planted vertically by the side of the earthen mound representing the deity. It may be noted here that the two deities, Baba Saheb and Bisalaksmi (a female deity riding on a tiger), are highly esteemed by the fisherfolk of West Bengal. All of them offer their worship in the main shrines of Baba Saheb on the western bank of the Hijli and Bisalaksmi on the eastern bank of the Dhaballat. There are permanent structures and regular worships are performed. A system of *panda* (*jajmani* system) organisation has also developed there. These *pandas* are Modak by caste, bearing the surname Gure. They have their fixed *jajmans* (clients). It is the duty of the *pandas* to make necessary arrangements for the worship and to look after the comforts of their clients. Though Hindu *pandas* make arrangements for the worship of Baba Saheb, who is also known as Machandari Saheb, a Muslim fakir makes actual offerings to the Pir.

It is worth mentioning here that in their original fishing grounds in East Pakistan, the East Bengal fisherfolk were not aware of the deity Banbibí, which is very common in southern Sundarban area. But when they came over to Southern Sundarban area for fishing, the Muslim suffix *bibi* has been replaced by the Hindu suffix *devi* and she is worshipped as such. But the fisherfolk of West Bengal have not changed her in any way and are worshipping her as Banbibí.

The Kalurai and Dakshinrai, who are common deities in southern Sundarban area, are not yet accepted in the khunti of East Bengal fisherfolk. The West Bengal fisherfolk, however, place not only

representatives of these in the khunti, they have also taken and installed them in some of their native villages as well. Now they have become members of their village deities. It seems that the nature and function of the deities are the main considerations for acceptance or rejection of a particular deity. It is believed that the Bandevi is the presiding deity of the poisonous snakes, tigers and other wild animals which infest the area of Sundarban. So all the fisherfolk feel it necessary to appease her, for they have to collect firewood from the jungle when they are in the fishing ground. But Kalurai and Dakshinrai are not so malevolent in nature as Bandevi. So we find the position of Bandevi is quite high both in the khunti of East Pakistan refugees and West Bengal proper in this area.

After the establishment of the shrine all other arrangements of the khunti are made. From this day onward the shrine is worshipped thrice a day—first, early in the morning before starting any work, when a member of the unit beats the bell-metal plate (*kansar*) and thereby wake up the deity. After that the members who are on the shore may start their day's work. The second worship is performed at noon before the sun leans towards the west. Some sweets and water are offered and incense is burnt. The third worship is performed just by beating a bell-metal plate and burning incense when the sun just sets in. After this the incense burner is taken round the khunti area and also brought into the store room along with beating of the bell-metal plate. The idea behind is to drive away the evils of the khunti.

Besides these, on every dasami day Ganga is propitiated somewhat elaborately with cocoanut, sugar, sagu or sun-dried rice, melted butter and banana. In some cases the bahardar offers his head's hair on this occasion. They are fully aware that on the dasami day the tide and ebb come to their lowest level and begin to increase from this day and thereby increasing their catch. So to ensure the ensuing bumper period they try to appease Ganga a little more elaborately on this day.

But due to excessive pressure of work it is not always possible to maintain the actual timings of worship. As a matter of fact, in Bakkhali, where the units are more commercialised, they do not perform the worship at noon. They have gone so far as to defer even for a few days, the annual Ganga worship from the scheduled sacred date (i.e., the last day of the month of Paus, i.e. December-January) if it falls on high tidal period. It is due to the fact that if the tide is high the possibilities for catch is also high. So if the worship is

performed during high tidal period, the crewmen will be in a festive mood and would be reluctant to work on net and it would result in great economic loss. Here the rational economic considerations seem to prevail.

Economic rationality of the fisherfolk is also reflected in their frank statements that vows, performing of rituals and devotional songs alone cannot give better catch, nor can they bring sweet water in their shallow wells to quench their thirst. Even then vows are made in cases of any imminent danger in the sea or repeated damage to the wooden posts holding the net when set in the sea and Ganga is propitiated with great devotion with the expectation that the desired beneficial results would follow.

Once the shrine is established it is very sacredly maintained all through the fishing season. But as the fisherfolk of West Bengal proper return to their natal village in a fortnight, they reconstruct the earthen mounds, referred to above, when they come back to the fishing ground again.

The whole of the khunti area is considered sacred and various taboos are connected with it. No one should commit nuisance within that area. Even after taking their meal they do not wash their mouth and hand within the khunti area. Pairing of nails or cropping of hair is also tabooed within the area. Boiling of dirty clothings is also not allowed. Even wild pigs, which are in abundance in the island, are not allowed to be cooked within the khunti for fear of pollution. So some of them take it in the boat. Further, it was observed that once the catch is spread within the khunti area for drying, they are not taken again for personal or others' consumption, nor can they be sold fresh till completely dried.

Besides the shrine, the store room is also considered sacred. On the day of its construction some incense is burnt in that area and in the shrine of Ganga. The store room is also generally constructed a little apart from the kitchen, lest it be polluted. In the evening some water of the sea is sprinkled in it and a lamp is kindled as is done in the shrine of Ganga.

All these taboos seem to be the outcome of the insecurity of life in that isolated island, particularly, when they go out for fishing in the vast sea. The multiplicity of taboos enhances the sacredness of the camping ground and ensures supernatural protection. Again, all these observances give some charm and a taste for variety in their isolated life so fully tied to the routine of techno-economic activities.

E. First net setting

To spot out a zone for setting the net requires a lot of experience and knowledge of the environment. When the spot is selected, the boat and the net, with all its accessories including the apparatus necessary for setting the net, are ritually purified. They are stacked near the shrine of Ganga where worship is performed with flowers, sweets and incense is burnt by bahardar himself. All the fishing gears are marked with vermilion. The two ends of the boat are also smeared with vermilion and mustard oil. At the narrower end of the funnel shaped net turmeric, vermilion, some blades of grass and tulsi leaves are tied in a bundle.

After the worship in the shrine the fishing gears with all the accessories are carried over to the boat with a slogan in the name of Ganga, Kastha Devi, Ban Devi, Kali, Gaji, etc. One of the fellow crewmen follows these articles with an incense burner, a bell-metal plate is beaten all the time. Conch-shells, if available, are also blown on this occasion. Some fishermen, particularly those from Chittagong, would like to place a sacred earthen pot at the prow of the boat.

Reaching the boats all of them sprinkle some water over the stern and prow of the boats and over their heads five or seven times and then all the articles are stacked in the boats. Slogans are again raised in the name of the deities mentioned above when the boats start.

When they reach the spot selected for setting the net, some of the worshipped articles, like flowers, sweets, etc., are thrown by the majhi in the sea in the name of Ganga and slogans in the name of different deities mentioned above are also raised time and again till all the work is completed.

Before dropping the net it is firmly tied with two vertically fixed wooden posts. The majhi sprinkles some water from his mouth into the open end of the net to avert the evils of the sea which may damage the net. Some of the majhis also throw duck's eggs, marked with vermilion, into the net at the time of dropping it. Some of the orthodox bahardars repeat the same ritual whenever they select a new site for setting the net even in the same season.

Further, it has already been said that to avert the reaction of salinity on the net some preservative is applied from time to time. The concept is that when boiled preservative is applied, the net should be treated as new and rituals connected with setting up of a new net are repeated. Again, there is a strong belief that if any of the crewmen in the unit feels that the net should be treated with

preservative, his desire is to be fulfilled even at the cost of some economic loss, lest any ill luck befalls.

To apply preservative to a new net some auspicious day is selected. At the time of applying preservative five betal leaves and five betal nuts are to be placed on the net marked with vermilion.

It may be added here that the fisherfolk of Noakhali (East Pakistan) are not much accustomed to drying the fish while it is a common practice among the fisherfolk of Chittagong. The fisherfolk of Noakhali used to return to their villages in East Pakistan every day to dispose off the fresh fish in the market. Thereby they maintained their family life in some way or other and their females also used to take active part in fishing rituals. On the first day of their voyage the females used to greet the net and all its accessories with *baran dala* and mark the net with vermilion. Some puffed rice (*khai*) were also strewn over the net and the residue was distributed amongst the children.

F. *The first catch*

It has been reported by the fisherfolk of Noakhali that in East Pakistan when the first catch of the season arrived at the shore, it was greeted by five married women with a *baran dala*. The baskets were touched with it and auspicious sound (*uludhwani*) from the mouth was produced and obeisance was made to them. Some quantity of fish used to be ceremonially taken in the room by them to be consumed later on. The rest of the fish might be sold to the mahajan for cash money. First of all some betal leaves and turmeric were purchased with that and some amount of the money of the first sale was left apart for the performance of Ganga puja at the end of the fishing season. In Chittagong, the best fish of the first day's catch used to be offered in the name of Badar Saheb. And when the boat with the dry fish reached the village of bahardar, married women used to greet the boat with *baran dala* which was to be kept in the boat for one night. On the following day the dry fish were handed over to the mahajan. The share of the Badar Saheb used to be collected by a Muslim fakir. But here in West Bengal those who appease Badar Saheb keep a large fish from the first day's catch, completely dried with a mark on it hanging in the store room. Sometimes in the evening an earthen lamp is also kindled there. At the end of the fishing season that fish is sold and the money so realised is used for performing the worship celebrated at that time.

Those who do not have any shrine for Badar Saheb also keep a

little quantity of the first day's catch in the store room in the name of Ganga and this is sold at the end of the fishing season and the money is utilised for her worship. Besides this, here in West Bengal, the first day's catch is also greeted in their khunti by the crewmen, particularly by the bahardar and the majhi with incense. Some incense is also burnt in the store room after sprinkling some water of the sea (identified as the water of the sacred river, the Ganga) before storing the first day's catch. Some quantity of the fish is sold to the mahajan for cash which is later on utilised to propitiate Ganga at the end of the fishing season. No outsider is allowed to take any fish from the first day's catch or any other article from the khunti on that day outside the khunti area. Again, the first day's catch must not be fried in oil or smoked in fire; for they say 'when Mother Ganga has given us the fish, we should not burn it, although it can be boiled in water. But this ideology is not always followed by the crewmen. The crewmen on the boat hardly abide by this ideological concept.

G. *The first challan or sale*

In some of the fishing units, particularly in the units on share basis, none of the crewmen crops hair, pairs nails, cleans clothings with soap; nor does any one use soap or oil, fry the catch in oil, smoke it till the first consignment (challan) is made. This custom is strictly observed by the bahardar and the general manager of the khunti, known as khuntir majhi.

For the first consignment, and also in all the subsequent ones, some auspicious day is chosen. Five basketful dried fish are kept near the shrine of Ganga. Some sea water is sprinkled over the basket. They are also marked with vermilion. The bahardar keeps fasting, and, after taking his bath, worships Ganga with fruits and sweets. Some of the bahardars also make vows by offering a few strings of hair from their heads in the name of Ganga. Incense is burnt and bell-metal plates are beaten. After the worship, the bahardar first carries one of the baskets to the boat. This is followed by the other members of the khunti. One of the crewmen also carries the incense burner and the bell-metal plate is beaten all along the way up to the boat and slogans in the name of different deities are also raised.

When the bahardar returns after making the first consignment, he brings with him some sweets and fruits to propitiate Ganga. Members of other units particularly the bahardars and the managers, are invited on this occasion. In case of a good catch, a feast is also

given to the fellow members, friends and relatives of the vicinity. After every consignment Ganga is propitiated with fruits and sweets. The members of the unit are generally entertained with some special food on that occasion.

H. The annual Ganga puja

So long I was discussing the rituals connected with the different stages of fishing operation. Besides these, the annual worship (puja) of Ganga is performed in every fishing unit on the day of *Makar-sankranti*.*

It was found in some areas, such as Frasergunj or Bakkhali where the khuntis are being established for at least seven or eight years, that a communal worship of Ganga is also performed by raising subscriptions from all of the khuntis in addition to the same worship in their respective khuntis. But the fishing units in Jambudwip are being established since 1964 only. Here the different units have not yet developed a community feeling to organise a single ritual unit for this purpose, so the annual *Ganga-puja* is performed only in their respective khuntis. But, even within this short period, some of the bahardars are thinking of performing a community Ganga-puja there to relieve the monotony of the island life, if not for the sake of prestige.

In Bakkhali, the whole management of the community Ganga-puja is in the hands of bahardars. But, in Frasergunj the management is in the hands of the officials of West Bengal Government. Some of the local influential persons, irrespective of caste like Brahman, Kayastha, Mahisya, Pod, etc., also participate in it. Some of the bahardars from different fishing grounds are also represented in the managing committee.

The Muslims do not take any active part in these rituals, although they pay subscriptions for it and attend the ceremony. Some of the energetic Muslim young fishermen were found to dance in the cultural functions connected with the annual Ganga-puja festival held at Frasergunj.

The subscription for this joint endeavour is raised from all the fishing units from different fishing grounds, like Jambudwip, Bakkhali, Kalisthan, and Frasergunj. Further, it has been observed that funds realised from settlement of disputes between the fishing personnel are also utilised in this annual Ganga-puja.

*The last day of the month of Paus is called *Makar-sankranti*.

The khunti areas are not far off from the famous *Sagar-mela* (fair held at Sagardwip) held on the day of *Makar-sankranti*. Friends and relatives of members of the unit who visit the Sagar-mela on pilgrimage also attend the annual Ganga-puja of the fishing units. The ceremonial kins are also invited on this occasion. Invitation and entertainment of the inter khunti members, particularly close friends, relatives and bahardars, continue for a few days even after the day of worship. The company of the near and dear ones cheers them up and helps them to regain their mental equilibrium to some extent.

On the day before the worship, the shrine of the goddess Ganga is thoroughly cleaned and decorated. All the bahardars try to purchase the image of the deity from Frasergunj or Kakdwip, or such other neighbouring townships. The goddess is represented by a female form with four hands riding on a *makar* (an imaginary sea animal). Out of the seventeen units in Jambudwip, only six could get the image. It may be noted here that the specialists in image-making are traditionally Patua by caste, although some local Mahishyas are also moving into this field. But they are not many in Frasergunj and the bahardars also do not care to place their orders in time. Worshipping an image has a prestige value and it must be procured if there is a vow in that respect. Some of the bahardars try their utmost till the last moment. What seems to be important in this context is that their decision to bring the image at the eleventh hour largely depends on the volume of catch which they cannot foresee. Those who cannot get the image, perform the worship on earthen pots, installed in the name of the deity.

In the morning of the worship, the bahardar carries a new earthen pot marked with vermilion and a mango twig (*am-sarat*) into its mouth in a procession singing devotional songs (*kirtan*) to the sea to bring water facing south, believed to be the direction of the abode of the deity Ganga, with the caste priest reciting incantations. One of the crewmen goes on sprinkling water from another pot with the idea of purifying the whole track of the procession. He goes on singing the songs upto the shrine of the khunti where the bahardar installs the pot in the name of Ganga.

The bahardar, after taking his bath, puts on a new piece of loin cloth (*dhuti*) and performs the worship with the help of the caste priest. All the crews assemble there and go on singing the songs all along.

The worship of Ganga is performed following the Hindu scrip-

tures. First of all, worship of *pancha-devata** is performed. It is followed by the worship of Ganga. The offerings are, in general, fruits and flowers. Goats may also be offered or let loose after the worship if there is such a vow. The colour of the goat depends according to the vow. *Homa* is also performed with melted butter, and others. At the end of the worship, offerings of flower (*anjali*) is performed and salutations are made by all present. In addition, the bahardar offers a few strings of hair from his head in the name of Ganga expressing his great reverence. No part of the net or of any fishing gear is placed before the deity or to the pot installed in her name. But, at the close of the ceremony, some chanted water (*santijal*) is sprinkled over all the fishing gears and in every nook and corner of the khunti to purify them all.

It was found that one bahardar in Jambudwip once lost his net three years back. He made a vow in the name of Ganga to let loose a goat for three consecutive years and the last performance was made during the annual Ganga-puja festival in his khunti in 1968. After bathing the goat, its horns and head were smeared with turmeric and vermilion. A few tulsi leaves, wood apple and blade of grass were tied round its neck. The bahardar got hold of the goat and recited some incantations as prompted by his caste priest. Some quantity of rice and a few coins were also tied round the neck of the goat with a new napkin. Then the goat was just raised a little from the ground by the bahardar and was touched with the earthen pot installed in the name of the deity and finally it was let loose when anybody, except the bahardar or his direct descendants, like sons, could catch hold of it and make good use of it. But it could not be slain inside the khunti nor could it be cooked there to avoid pollution of the khunti area, as the bahardar was a Vaisnavite. But it could be prepared and feasted on at other places or in boats.

Some superstitious beliefs are also connected with this day. It is believed that the deity herself moves about on the sea with her followers as has been pointed out earlier.

1. Winding up of the fishing camp

It is claimed that the fisherfolk of Rangabali area of Chittagong used to get indication in dream when the khunti was to be wound up. Ganga appeared in dream in different forms. The bahardar was

*Pancha (five) and devata (gods), viz. Ganesh, Surya, Vishnu, Siva and Durga.

supposed to have a special power to read the implication of the dream. If so implied, he used to wind up the khunti even if there was sufficient catch or its possibilities, for otherwise some ill luck, it is believed, might befall them. However, when these fisherfolk settled down in West Bengal, this feature was not observed. Here the fisherfolk wind up the khunti just at the beginning of southern wind when the sea becomes rough and when humidity increases, usually by the second week of February. The main consideration is that with the increase of humidity it is not possible to dry the catch. At the same time, it is said that when they feel uneasy for their family during the later part of the fishing season, it is not wise to continue the fishing operation any more, for some ill luck might follow. So, they decide to wind up the khunti. It is also observed that once a bahardar comes to a decision of early winding up of the khunti, it tends to break the morale of the members of other units, too. They feel disheartened at the breaking up of the component units. So, other bahardars around the fishing ground also begin to wind up their respective khuntis.

When the decision to wind up the khunti is taken, a flag is hoisted there. Sometimes, the name of goddess Ganga is written on the flag and all other arrangements to pack up their belongings are also made. Those who have made vows to the deities of other areas, like Ban Devi of Frasergunj, go there to offer their worship. On the previous day devotional songs are sung till late hours of night.

On the day of their return voyage, Ganga is again propitiated with fruits and sweets by the bahardar in the shrine of the khunti. All the crewmen remain fasting till the worship is completed. The money, kept apart from the realisation of first day's catch, is utilised for this purpose. When the worship is completed, some of the bahardars carry the pots installed in the name of Ganga on their heads and immerse them in the sea, while a few others leave them as they are in the shrines. Once the pot is immersed, none can pass a night in the khunti any more. Before boarding the boat, everybody sprinkles some water on the boat and also over his head. Slogans in the name of deities are raised from time to time and incense is burnt and bell-metal plate kept beating all along.

No other elaborate rituals are performed on the way. But every morning and evening incense is burnt and bell-metal plate beaten. Devotional songs and recitations of verses from sacred books are also performed everyday to break the monotony of the boat journey. Further, it is seen that a few bahardars of the same locality ply their

boats together both in their first as well as in their return voyage. That also breaks the monotony of their journey and also gives them a sense of security to face the dangers on the way.

The bahardars return to their natal villages with the crewmen if this is directly communicable by boat, e.g., in Tribeni or Kakdwip area. When they reach there, five married women greet them with *baran dala*. There they generally perform a Ganga and a Satyanarayan-puja with fruits and sweets with the help of their caste priest, and the crewmen are entertained thereafter. Those who have vows may also sacrifice goat in the name of Ganga.

But the bahardars of Bihar cannot directly return to their natal village by boat with all their crewmen. They perform the last ritual of the fishing operation at Uluberia, their starting point. There they offer their worship in the name of the important local deities, e.g., Manasha, and entertain their crewmen. The cost of this last entertainment and the ritual is borne by the bahardar. But it is not always possible if the catch is not sufficient enough. In that case, the crewmen, both on share or on salary basis, lend their helping hands to arrange all the luggage for the next season no matter whether they would join the same unit or not.

The performance of worship and giving a feast or giving presentations, like clothings, dried fish, etc., at the close of the fishing season to his crewmen have also a prestige value to the bahardar. Besides this, his good behaviour and attitude towards his crewmen also help him in recruiting his personnel, either new or old, for the next fishing season. For, it is but obvious that in such a transient society where they have to live for about four months interpersonal relation is much counted upon.

J. *Rituals of those who do not establish any fishing camp on the shore*

The types of fishing gears, viz., gill net or hook and line, are operated by the fisherfolk of this category. They dispose off their catch fresh. They are mainly the Malo (East Bengal refugees) and the Rajbanshi. These fishing gears help them to keep their catch fresh as they can be removed from time to time, whereas those who operate bag nets have to wait to remove their catch from their net till the end of tide or ebb. By that time the whole catch becomes a lump due to severe current of the sea. So, they have to dry them in the *khunti* owned by them.

As the fisherfolk of the other category, i.e., the Malo or the Rajbanshi, do not have any shelter on the shore, they do not perform any ritual on land, nor do they have any shrine over there. Their rituals are circumscribed within relatively limited activities compared to those who dry up their catch as described earlier. Moreover, their limited number of rituals may also be ascribed to the fact that they do not stay in one place for the whole fishing season. They move from one fishing ground to another and come in contact with new sets of people and dealers in fresh fish in different places. Again, about once a fortnight they go home. As such, it is not unlikely that the fisherfolk of this category require a limited number of rituals to form an intense moral community. They do, however, install their family deities, Ganga, Kali, etc., and the presiding deity of the fishing ground in the boat itself where incense is regularly burnt, bell-metal plates beaten and some sweets offered every morning and evening. Thus, it is seen that living in insecurity leads the fisherfolk of both the categories to establish some sort of shrine in their temporary abode, either on the boat or on the shore, to get a feeling of security and emotional support.

It was found that one important object of offerings of the Malo is salt which they consider to be sugar of the Ganga (sea). It is offered only to goddess Ganga and not to any other deity. It is important to note here that no object of offering, except salt, owes its origin to the sea, river or pond. Even fish, the main object of the fisherfolk is not offered in their fishing rituals, except in *phur-basani* ceremony when some fresh fish are strewn over the new net for some magical purposes as described earlier. On the same occasion, some conch shell, an aquatic object, is also offered in the name of Ganga who is believed to be presiding over the sea. It may be noted here that the symbol of married Hindu women in West Bengal is conch shell bangle and *vermillion*, so they are also offered to goddess Ganga, although aquatic objects are not a part and parcel of the offerings of fishing rituals. But fish is associated with many rituals and thus developed a fish culture complex in Bengal (Das 1931, 1932).

Besides the Hindu fisherfolk, one section of the Muslim, known as the *Nikari*, is also engaged in catching fish with small bag nets with a different technique near the creeks. The members of this section dispose off their catch fresh. It may be noted here that the *Nikaris* proper, in general, are fish traders and not fish catchers. But these *Nikaris* have taken to this profession due to economic pressure.

As a result, they have lost their social status and are gradually forming an endogamous unit by themselves.

These Muslim fisherfolk also have a limited number of rituals connected with fishing. On the day of starting their voyage, a Muslim maulavi (mendicant) is called who recites passages from Milat Sarif (a sacred book of the Muslim) and sweets are distributed. Some of the Muslims also do the same thing after their first catch. The same thing may also be repeated when any danger in the sea is overcome and on the last day of winding up of their fishing operation of the season.

The Muslim fisherfolk of Basirhat (24-Parganas) contribute fifty paise per unit for every challan to appease the Pir of one Lahul-Amin, popularly known as Aminia Madrasa. The total return of the last catch is also contributed for this Pir. One son-in-law of the said Pir collects the whole contribution. A fair is held near the residence of the Pir from the 13th to the 15th Falgun (February-March) and at Aminia Madrasa from the 17th to the 19th of the same month at Basirhat when many Muslim fisherfolk take active part.

As the Nikaris are traditionally fish traders, their long association with that trade might have led them to contribute generously from their every challan for the welfare of the Pir.

On the whole, however, the Muslim fisherfolk have distinctly fewer rituals than the Hindus and they also do not seem to participate directly in rituals sponsored by the Hindus.

DISCUSSION

Like the agriculturists, who perform many rituals in different stages of agricultural operations, the marine fisherfolk, a specialised component of the peasantry (rural folk) have also elaborate traditional rituals connected with the different phases of fishing operation. But unlike the agriculturists the marine fisherfolk feel more dependent on the freaks and vagaries of nature. They earn their livelihood from the vast unfavourable sea where life is always at stake and the yield is largely beyond their control. This element of insecurity and uncertainty combined with the unique situation of social deprivation of living away from their family, impart a tone of urgency and depth to their ritualistic efforts and beliefs. Groves's (1934) study of the fishing rites at Tabar gives some indications of the socio-economic implications of the fishing rituals.

In an insecure way of life in the sea, they accept the female deity Ganga as the presiding deity of the vast sea and propitiate her with

great devotion. Probably, the concept of the deity Ganga of the Hindu pantheon, connected with the sacred river Ganga, is projected by the fisherfolk to the sea.

The life in the sea and the catch are believed to be dependent on the sweet will of the deity. The fisherfolk look upon their occupational activity in a fatalistic mood. As long as they are in their fishing ground or engaged in anything connected with fishing, they consider their success and failure in terms of the pleasure and displeasure of the goddess Ganga.

Besides the deity Ganga, some other deities, like the presiding deity of the fishing ground or of the wild animals which infest the area, etc., believed to be affecting their life in the fishing ground, are also propitiated by the fisherfolk.

But some rational consideration are also there. Their superstitious beliefs may tolerate economic loss upto certain extent after which a rational approach to livelihood dominates. They give much emphasis on technological perfection of their fishing gears for better catch. It has been observed that a group of commercialised fisherfolk had also deferred their annual Ganga-puja for a few days, from the scheduled sacred full moon day, when the possibility of the catch was high.

The livelihood activities of the marine fisherfolk, right from sailing out from the natal village (including the preparation of fishing gears, handing over the catch to the mahajan and winding up of the khunti at the close of the fishing season) are connected with a series of rituals. But except the annual Ganga-puja followed according to the Hindu scriptures, the form and content of the other rituals of the fisherfolk connected with fishing, are not very elaborate. There is also not much difference in the details of the numerous rituals performed on various occasions.

It is interesting to note that the ritual offerings of the fisherfolk are like that of the agriculturists as they are also a component of the same peasant society. No marine object, except salt which is believed to be the sugar of the Ganga, has yet been accepted as offering by these fisherfolk in their fishing rituals.

The few short and simple rituals, performed in their own way by a section of the Muslims, seem also to be due to the insecurity of life and uncertainty of catch. These Muslims do not propitiate any deity like the Hindus except a few of their Pirs when passages from one of their sacred books are recited and sweets are distributed on important occasions.

It may be mentioned here that besides providing supernatural

support to cover risk and uncertainty in livelihood activity, religion also offers expressive outlets for this transient community through involvement in such cultural phenomena, like recital of holy verses from sacred literatures, kirtan and bhatiali songs, rituals and other recreational activities.

Religion also helps to develop a sentiment and attachment for the livelihood activity itself. The material object of their economic pursuit, i.e., the fishing gears, and others, are visualised as animate object. Thus, life infusing ceremony of the fishing gear is performed. A weathered net is termed as *bura** jal. It is not unlikely that thereby they feel the warmth of their kin in such an isolated fishing camp or in the fishing ground. The various observances connected with khunti also give it an aesthetic touch.

All these features are more persistent in the case of the fishing units of the East Pakistan refugees than in those of West Bengal proper. It may be due to the fact that the units of the fisherfolk of West Bengal are more close kin and village oriented. Moreover, they return to their natal villages at least once in a fortnight and so their temporary establishments on the shore are not made so elaborate. Cooking, dining, etc., are done in their boat. As such, they need not build up such a moral community like those from East Pakistan.

Thus it is seen that the life activities, including various marine fishing rituals, are influenced by three major factors, viz., insecurity of life in the vast open sea; uncertainty of the yield; living in a transient society for about four months during the fishing season.

The intensity or degree of reverence to their deities in general also seems to be more in the case of the fisherfolk than is in the case with the agriculturists. This might be due to the first two factors mentioned above.

MONEY AND TRADE NETWORK

Marine fishing, for commercial purposes, has to be operated on a larger scale than can be managed by individual fisherfolk families. The fisherfolk, who are the primary producers in this economic project, cannot be treated as self sufficient isolates. They are just a part of a larger interdependent network of economic relationship. For their productive activity, they have to depend on a large number of people, each having a specific function in the organisation. The basic needs of the productive unit are capital and raw materials. For these the fisherfolk have to depend on many non-fishing castes or communities, distributed over a wide area. Their finished products, again, are distributed to different market centres through a series of intermediaries which often include non-fishing castes.

In the following pages, an attempt has been made to delineate the market relations of the fisherfolk with regard to capital, raw material, transport and distribution of their finished products. The organization of linked chain of operations from the catch by the primary producers to the financiers and their agents in the different markets has been described in details. The methods of procuring their food stuff and of maintaining contacts with their families through the markets during the fishing season have also been discussed.

A. Sources of capital

The dry fish trade received a new impetus in West Bengal after the partition when a large number of refugee fisherfolk came from Chittagong and Noakhali to settle down in India.

Prior to the coming in of the East Bengal fishermen, the local fisherfolks, like the Rajbansi, the Dhibar and the Bagdi, used to do marine fishing on a small scale. Of these three castes, the Dhibars were mainly engaged in drying their catch which was mainly of a single variety, viz., red shrimps (*rangi-chingri*). The Rajbansis used to operate a type of gill net (*dara jal*) to catch a type of large *bhetki* (shole) fish which was sold fresh. Generally, the Bagdis accompanied the Rajbansis as crewmen.

All these fishing units were small in size (about 10 individuals per unit) and they used to return to their natal villages, located not far from the coast, once a fortnight. So, their requirement of cash was limited. They used to meet their requirements from local sources,

*The term *bura* is used as prefix to denote only aged animate objects.

mainly from their friends and relatives, either on mortgage of movable and immovable properties, or on high rates of interest.

In the beginning of 1950, there were hardly one or two agents of fish merchants (aratdars) at Phuleswar or Uluberia (Howrah), the biggest dry fish trade and collection centre in West Bengal. These fish merchants were Rajbansi by caste and they were floating some money on a small scale, to the marine fishermen of the locality.

But, within two or three years of their settlement in West Bengal (around 1952 or 1953), the East Bengal refugee fisherfolk, Kaibarta by caste, were gradually entering into the field of marine fishing in pursuance of their traditional occupation. Gradually, they were bringing dry fish in more quantities to Phuleswar and Uluberia. But the local Rajbansi fish merchants had not sufficient ready cash in hand to procure the increased supply of dry fish. As a result, due to excess of the supply in relation to its demand, the price of dry fish suddenly fell below the cost of production in that year resulting in heavy loss to many of the bahardars. So, some of them had to wind up their business.

But, it soon led to a new fillip to the fishing trade. The money lenders of this trade, the large-scale Muslim dealers in dry fish, appreciated the skill of the East Pakistan refugee fisherfolk and came forward to take the opportunity to invest their capital in the fishing trade. One of them, a Muslim of Kerala, has been visiting the city of Calcutta for the last fifteen years or so to collect dry fish from Digha and Junput in Midnapur and Phuleswar in Howrah from small traders. He has his head office at Teriti Bazar in Calcutta. He came forward with financial assistance and the refugee fisherfolk of East Pakistan welcomed it to their substantial relief.

It may be noted here that Chittagong town was the main dry fish trade centre in East Pakistan. Dry fish from this centre were exported to Rangoon and the Far East. In Chittagong, the main money lenders in this trade were the local Muslims, and also a few local Hindus. It is interesting to note that not a single Marwari, who have captured nearly all the other trades and industries of India, has come in the field of dry fish trade. It may be that their religious and customary aversion to fish is the reason for their avoidance of this trade.

A few Muslims of Kerala used to pay their visit to Phuleswar and Uluberia from Teriti Bazar in Calcutta to collect dry fish for their business from a few local Rajbansi fish merchants who in their turn procured them from the actual fish catchers. So, these Rajbansis became known to the Kerala Muslims. But the bahardars and their

crewmembers were practically unknown to them. The Kerala Muslim financiers therefore, evolved a system, known as *dadān*, and floated money through the known local Rajbansis who knew the bahardars quite well.

B. *Dadan system (money lending system)*

All the bahardars operate under the dadan system. Under this system, the mahajans or dadandars (money lenders) advance money through their agents to different bahardars 'free of interest' (Roychaudhuri, 1969: 244). But the bahardars have to supply the catch of the whole season to the agents of their respective mahajans (Appendix H) who manage to extract exorbitant profit out of it as follows:

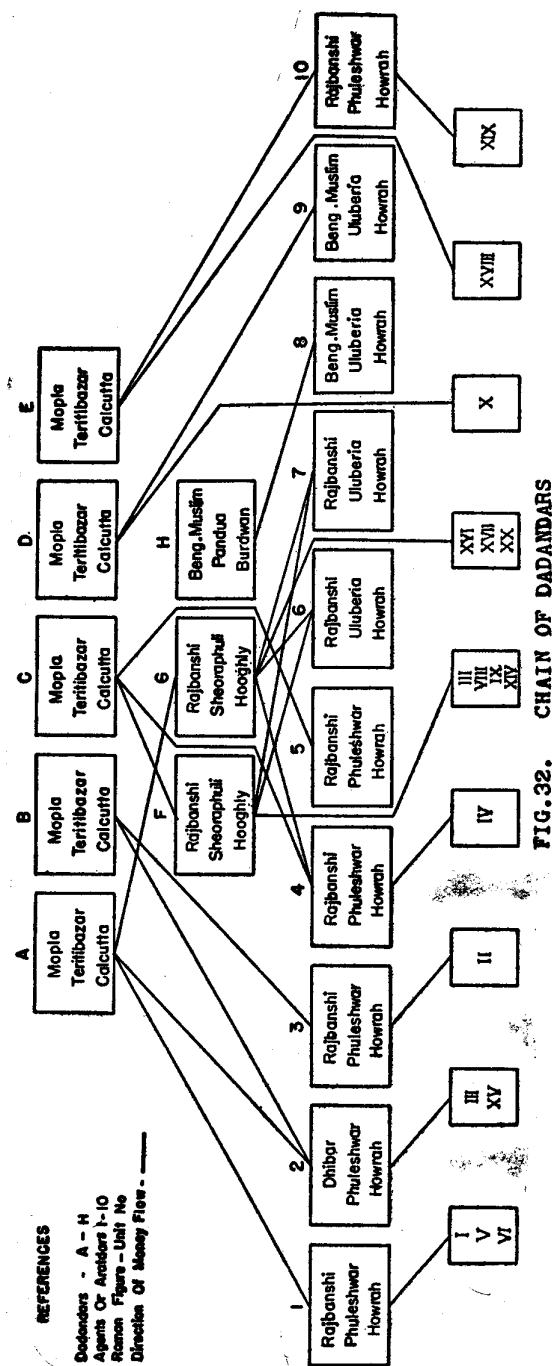
- i) The bahardars shall sell fish at Rs 6 to Rs 20, less than the then market rate per maund.
- ii) In addition, the bahardars would have to give 42 kg or sometimes even more as measure for a maund of dry fish as against the official measure of 37.5 kg to a maund. This excess weight of about 5 kg is known as *dhalta*.

For their remuneration, the agents get five rupees per maund from their mahajan.

Often it is found that the mahajans do not realise the whole amount floated as dadan, nor do they insist on the bahardars to repay the whole amount. It is customary for the mahajans to let the bahardars carry over the balance to the next year. The bahardars and the fishing crews under him are their source of income. As such, the mahajans cannot afford to allow them to go out of their stranglehold. The unrealised amount of the dadan keeps the bahardars perpetually dependent on the mahajan.

Now, let me present the actual position of the source of dadan of the seventeen fishing units of Jambudwip during the fishing season of 1967-68. The chain relation of the dadandar, agent, sub-agent and the bahardars of the different fishing units may diagrammatically be represented as follows (Figure 32).

It is seen from the said diagram that the mahajans (A to H) are mainly the Mopla of Kerala who have their head quarters at Teriti Bazar in Calcutta. These mahajans have hardly any direct contact with the bahardars of the different fishing units. They advance money to the bahardars through their agents or sub-agents who have their godown (arat) in Phuleswar or Uluberia where the dried fish are collected from their respective bahardars. These agents or sub-agents are mainly the local Rajbansis who get their commission from their respective mahajans. But the agents of Sheoraphuli are Rajbansis of



East Bengal origin. Besides working as agents of the Moplas of Teriti Bazar, they also have their own money to float as dadan either directly or through their agents at Phuleswar. The whole responsibility of realising the money, floated as dadan, is on those who are directly in contact with the bahardars.

What seems to be important here is that in this field also a trend in caste monopoly is noticed. Being a fishing caste, the Rajbansi can very well keep regular contact with their brethren fisherfolk and realise the money from them. Moreover, it has been noted earlier that some of the local Rajbansis were already in this field prior to the advent of the refugee fisherfolk. So, they had already gained some experience in that field and were known to the mahajans of Teriti Bazar.

Another feature noticed from the diagram is that not a single bahardar has taken dadan from more than one dadandār in a given season. If the dadan is taken from more than one source, many complication may crop up, most important of which is to decide the proportion of the supply of dry fish of the season to be made to different financiers. These mahajans have also a sort of convention by which one mahajan abstains from advancing any money to any bahardār till he repays the whole amount which he had borrowed last year from another mahajan. Under this system, the mahajans can very well keep the bahardars under their stranglehold. They cannot go away without repaying the amount as no other mahajan would advance any money to them so long they have not cleared his dues to his 'brother' in the trade.

Now, let me examine the actual loan position of the seventeen fishing units of Jambudwip. Here (Table 21), only that amount has been taken into consideration which has been borrowed from different sources for fishing operation for the season 1967-68.

Table 21. *Type of loan**

Serial No.	Type of loan	Amount (in Rupees)
1.	On dadan	42350
2.	On interest	17050
3.	Without interest (from friends and relatives)	1250
4.	On land mortgage	1200
	Total	61,850

*For detail see Table 22.

Thus, it is seen that a little over two-third of the total amount taken as loan is on dadan followed by the amount on interest. The rest of the amount is taken from friends and relatives without any interest and on land mortgage. The system of taking the money on mortgaging a piece of land is that the mortgagee would cultivate the land at his own cost and enjoy the yield for at least one year. When the money is repaid, he has to return the piece of land. Here, although the 'direct interest' is not involved, the output of the said land may be treated as an 'indirect interest'.

It is worth mentioning here that the refugee marine fisherfolk, as are found at present in West Bengal, are practically landless except for about $3\frac{1}{4}$ *kathas* of homestead land per family allotted by Rehabilitation Department. Those, again, who have settled outside West Bengal, e.g., in Bihar, were also given about $3\frac{1}{4}$ bighas of land per family. Thus, it seems that they have very little scope for mortgaging their land. A few families have, in course of time, acquired some land, but it also scarcely exceeds five bighas.

From the Table 23 on the source of money taken on interest, the following salient features are observed.

(1) For fishing and other connected affairs, the fisherfolk depend on sixteen castes or communities (Table 22). Thus, a symbiotic economic relation develops between them and the general peasantry. On further scrutiny, it is seen that only four of them (Kaibarta, Dhibar, Rajbansi and Malo) are the fishing castes and the rest are non-fishing castes who are either functional, artisan, or agriculturist castes.

(2) Loan with interest may, however, be taken from castes of all social ranks—'high', 'intermediate' and 'low'. In this sphere they are maintaining economic relationship with as many as eleven castes and pay an exorbitantly high average rate of interest of 76.88% per annum within a range of 25%-144% (Table 23).

The incidence of taking loan is highest from the Kaibarta (12), but the proportionate amount is not high. The average amount of loan taken from the Kaibarta is a little above Rs 300; whereas that in the case of the Brahman and the Kayastha may come to over Rs 1,000.

It is worth mentioning here that practically the whole of the amount taken as loan on interest is from the local sources*. This is because that unless the bahardar is known to the money lender, he

*Local source means where the natal villages of the bahardars and the villages of the financiers are within about five miles radius where they are intimately known to each other.

Table 22. Sources of money (in Rs.) for the fishing season 1967-68

Caste/Community	Local Area				Shared Unit			
	Salaried Unit		Local Area		Without interest		On land mortgage	
	On interest	Without interest	On land mortgage	On dadan	On interest	Without interest	On land mortgage	On dadan
Baroi	2000							
Brahman					3400			
Dhibar								
Goala	200					300		
Kaibarta	2200	450	800		1500			
Khairi	700							
Kayastha	3000	200						
Kumhar					800			
Malo					200			
Muslim								
Namasudra					850			
Napit	900							
Rajbansi						200		
Sakhari								
Sahu	300				400			
Teli								
Total	9300	650	1200		7150	500		

Table 22—Continued

Uluberia and Phuleswar (Howrah) Area

Caste/Community	Salaried Unit				Shared Unit			
	On interest	Without interest	On land mortgage	On <i>dadān</i>	On interest	Without interest	On land mortgage	On <i>dadān</i>
Baroi	—	—	—	—	—	—	—	—
Brahman	—	—	—	—	—	—	—	—
Dhibar	—	—	—	—	—	—	—	200
Goala	—	—	—	—	—	—	—	—
Kaibarta	—	—	—	—	—	—	—	—
Khaiari	—	—	—	—	—	—	—	—
Kayastha	—	—	—	—	—	—	—	—
Kumhar	—	—	—	—	—	—	—	—
Malo	—	—	—	—	—	—	—	—
Muslim	—	—	—	—	—	—	—	—
Namasudra	—	—	—	—	—	—	—	—
Napit	—	—	—	—	—	—	—	—
Rajbanshi	—	100	—	19450	—	—	—	1850
Sakhari	—	—	—	—	—	—	—	—
Sahu	—	—	—	—	—	—	—	—
Teli	—	—	—	—	—	—	—	—
Total	—	100	—	19450	—	—	—	1850

Table 22—Continued

Sheoraphuli (Hooghly) Area

Caste/Community	Salaried Unit				Shared Unit			
	On interest	Without interest	On land mortgage	On <i>dadān</i>	On interest	Without interest	On land mortgage	On <i>dadān</i>
Baroi	—	—	—	—	—	—	—	—
Brahman	—	—	—	—	—	—	—	—
Dhibar	—	—	—	—	—	—	—	—
Goala	—	—	—	—	—	—	—	—
Kaibarta	—	—	—	—	—	—	—	—
Khaiari	—	—	—	—	—	—	—	—
Kayastha	—	—	—	—	—	—	—	6560
Kumhar	—	—	—	—	—	—	—	—
Malo	—	—	—	—	—	—	—	—
Muslim	—	—	—	—	—	—	—	—
Namasudra	—	—	—	—	—	—	—	—
Napit	—	—	—	—	—	—	—	—
Rajbanshi	—	—	—	8450	—	—	—	—
Sakhari	—	—	—	—	—	—	—	—
Sahu	—	—	—	—	—	—	—	—
Teli	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	6560

Table 22—Continued

Uluberia and Phuleshwar (Howrah) Area

Caste/Community	Salaried Unit				Shared Unit			
	On interest	Without interest	On land mortgage	On <i>dadān</i>	On interest	Without interest	On land mortgage	On <i>dadān</i>
Baroi	—	—	—	—	—	—	—	—
Brahman	—	—	—	—	—	—	—	—
Dhibar	—	—	—	—	—	—	—	200
Goala	—	—	—	—	—	—	—	—
Kaibaria	—	—	—	—	—	—	—	—
Khaiari	—	—	—	—	—	—	—	—
Kayastha	—	—	—	—	—	—	—	—
Kumhar	—	—	—	—	—	—	—	—
Malo	—	—	—	—	—	—	—	—
Muslim	—	—	—	—	—	—	—	—
Namasudra	—	—	—	—	—	—	—	—
Napit	—	—	—	—	—	—	—	—
Rajbanshi	—	100	—	19450	—	—	—	1850
Sakhari	—	—	—	—	—	—	—	—
Sahu	—	—	—	—	—	—	—	—
Teli	—	—	—	—	—	—	—	—
Total	—	100	—	19450	—	—	—	1850

Table 22—Continued

Sheoraphuli (Hooghly) Area

Caste/Community	Salaried Unit				Shared Unit			
	On interest	Without interest	On land mortgage	On <i>dadān</i>	On interest	Without interest	On land mortgage	On <i>dadān</i>
Bāroi	—	—	—	—	—	—	—	—
Brahman	—	—	—	—	—	—	—	—
Dhibar	—	—	—	—	—	—	—	—
Goala	—	—	—	—	—	—	—	—
Kaibarta	—	—	—	—	—	—	—	—
Khaiari	—	—	—	—	—	—	—	—
Kayastha	—	—	—	—	—	—	—	6560
Kumhar	—	—	—	—	—	—	—	—
Malo	—	—	—	—	—	—	—	—
Muslim	—	—	—	—	—	—	—	—
Namasudra	—	—	—	—	—	—	—	—
Napit	—	—	—	—	—	—	—	—
Rajbanshi	—	—	—	8450	—	—	—	—
Sakhari	—	—	—	—	—	—	—	—
Sahu	—	—	—	—	—	—	—	—
Teli	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	6560

Table 22—Continued

Caste/Community	Halisahar Area				Teriti Bazar (Calcutta) Area				Kultati Area			
	Salaried Unit		Shared Unit		Shared Unit		Shared Unit		Shared Unit		Shared Unit	
	On interest	Without interest	On land mortgage	On dadan	On interest	Without interest	On land mortgage	On dadan	On interest	Without interest	On land mortgage	On dadan
Baroi	—	—	—	—	—	—	—	—	—	—	—	—
Brahman	—	—	—	—	—	—	—	—	—	—	—	—
Dhibar	—	—	—	—	—	—	—	—	—	—	—	—
Goala	—	—	—	—	—	—	—	—	—	—	—	—
Kaibarta	—	—	—	—	—	—	—	—	200	—	—	—
Khaiari	—	—	—	—	—	—	—	—	—	—	—	—
Kayastha	400	—	—	—	—	—	—	—	—	—	—	—
Kumhar	—	—	—	—	—	—	—	—	—	—	—	—
Malo	—	—	—	—	—	—	—	—	—	—	—	—
Muslim	—	—	—	—	—	—	—	6100	—	—	—	—
Namasudra	—	—	—	—	—	—	—	—	—	—	—	—
Napit	—	—	—	—	—	—	—	—	—	—	—	—
Rajbanshi	—	—	—	—	—	—	—	—	—	—	—	—
Sakhari	—	—	—	—	—	—	—	—	—	—	—	—
Sahu	—	—	—	—	—	—	—	—	—	—	—	—
Teli	—	—	—	—	—	—	—	—	—	—	—	—
Total	400	—	—	—	—	—	—	6100	200	—	—	—

Table 22—Concluded

Caste/Community	Salaried Unit				Shared Unit				Grand Total
	On interest	Without interest	On land mortgage	On dadan	On interest	Without interest	On land mortgage	On dadan	
	On interest	Without interest	On land mortgage	On dadan	On interest	Without interest	On land mortgage	On dadan	
Baroi	2000	—	—	—	—	—	—	—	2000
Brahman	—	—	—	—	3400	—	—	—	3400
Dhibar	—	—	—	—	—	—	—	200	200
Goala	200	—	—	—	—	—	—	—	200
Kaibarta	2200	450	—	—	1700	300	—	—	4650
Khaiari	700	—	800	—	—	—	—	—	1500
Kayastha	3400	200	—	—	—	—	—	—	3600
Kumhar	—	—	—	—	800	—	—	—	800
Malo	—	—	—	—	200	—	—	—	200
Muslim	—	—	—	—	—	—	—	6100	6100
Namasudra	—	—	—	—	850	—	—	—	850
Napit	900	—	—	—	—	—	—	—	900
Rajbanshi	—	100	—	27900	—	—	—	8150	36150
Sakhari	—	—	—	—	—	200	—	—	200
Sahu	300	—	—	—	400	—	—	—	700
Teli	—	—	400	—	—	—	—	—	400
Total	9700	750	1200	27900	7350	500	—	14450	61850

Table 23. Sources of money taken on interest for the fishing season 1967-68

Caste from whom loan taken	Units on salary basis				Units on share basis				Total	
	No. of occurrence	Amount (in Rs)	% of interest per annum (in Rs)	Range	Average	No. of occurrence	Amount (in Rs)	% of interest per annum (in Rs)	Range	Average
Baroi	3	2,000	36-48	44	—	—	—	—	—	—
Brahman	—	—	—	—	—	3	3,400	60-144	108	—
Goala	1	200	120	120	—	—	—	—	—	—
Kaibarta	7	2,200	25-144	72.14	5	1,700	60-144	108	12	3,900
Khaiari	2	700	25-36	30.50	—	—	—	—	2	700
Kayastha	3	3,400	25-144	64.66	—	—	—	—	3	3,400
Kumhar	—	—	—	—	—	1	800	60	60	800
Malo	—	—	—	—	—	1	200	144	144	200
Namasudra	—	—	—	—	—	2	850	60-98	78	850
Napit	2	900	30-36	28	—	—	—	—	2	900
Sahu	1	300	48	48	1	400	120	120	2	700
Total	19	9,700	25-144	58.74	13	7,350	60-144	103.38	32	17,050
										25-144
										76.88

does not like to take the risk of investing money in this type of gambling in marine fishing.

In Figure 32, it has been shown that all the agents or aratdars at Phuleswar, Uluberia and Sheoraphuli get the (major) amount of money which is floated as dadan from the Muslim Mopla traders of Kerala, who have their headquarters at Teriti Bazar in Calcutta. In the field of dadan system, some caste restrictions are noticed. By and large, the actual money lenders are the Mopla and the agents are the Rajbansi. These agents also have their own money which are also invested as dadan.

It may also sometimes happen that the money lender, instead of giving the money to a particular bahardar, for some reason or other, may hand over the money on interest to their bahardar or any other fisherman who is known to him. The latter, in his turn, invests the amount on special terms and conditions—usually on consideration in kind and not in cash, viz., the borrowers give the investor one maund of dried fish per hundred rupee of the money borrowed in every consignment for the whole fishing season, even if the principal amount is repaid. This system of taking loan is known as *machherupar*.

Thus, this system of *machherupar* may be regarded as a sub-type of dadan. Here only the middleman runs the whole risk. He has to repay to the actual money lender according to the agreed terms and conditions even if he is deprived of the amount of dry fish agreed upon. This type of risk is so uncertain that no non-fishing caste would venture to enter into the arrangement as such. As a matter of fact, it is taken to only by the bahardars or by others who are actually engaged in the fishing profession.

On the other hand, in dadan system the *dadandar* or the mahajan runs no risk. The agent, who acts as middleman, is responsible to realise the money floated as dadan from the bahardar for which he gets a commission from the mahajan.

C. Procurement of raw materials for fishing operations

Marine fishing operation on a large scale requires various kinds of raw materials. From a reference to Table 24, it will be evident that the fisherfolk have to depend on many villages besides their own and on urban or semi-urban market centres for the above purpose.

Markets crop up where there is demand for such raw material. Thus in Kakdwip (24 Parganas), because of its nearness to the fishing centre, a market grew up where the marine fisherfolk can get all the raw materials for their operation. Other such important centres

are Phuleswar and Uluberia (District Howrah). The bahardars regularly go there from different fishing camps to dispose off their output. Again, with the influence of their mahajans at Phuleswar or Uluberia, they get the necessary raw materials from these shops on credit basis, of course, at higher rates.

Now, let us go into the details of the requirements of raw materials for marine fishing operation. Here, the net proper with its accessories and food stuff will only be dealt with.

Table 24. Sources of raw material

Raw material	Sources
1. Thread	Barrackpur & Baruipur (24 Parganas), Barrabazar (Calcutta), Chandannagar & Sheoraphuli (Hooghly), and Uluberia (Howrah)
2. Bamboo (for fang)	Achipur & Kanchrapara (24 Parganas), Pearapur (Hooghly), Pujali, Saranga & Sibdaspur (Howrah)
3. Other bamboo	Halisahar, Hanskhali, Haringhata & Kakdwip (24 Parganas), Serampur (Hooghly) and Uluberia (Howrah)
4. Wooden Post	Kakdwip (24 Parganas) and Pujali & Uluberia (Howrah)
5. Net	Aukhaynagar, Ganespur, Kakdwip & Kalinagar (24 Parganas)
6. <i>Garan chhal</i> (Net preservative)	Belegkata (Calcutta) and Kakdwip (24 Parganas)
7. Wire rope (for utla of net)	Kidderpur (Calcutta)
8. Coconut fibre rope	Barrabazar (Calcutta) and Kakdwip (24 Parganas),
9. Jute	Tribeni (Hooghly)
10. Fish basket & hogla	Kakdwip (24 Parganas) and Uluberia (Howrah)
11. Food stuff	Diamond Harbour, Frasergunj and Kakdwip (24 Parganas)

The net. The nets are generally knit in the villages of the bahardars under their direct supervision. Different parts of the net may be allotted to different persons, for they are knitted separately and then joined together. The fisherfolk themselves, both men and women, knit them. It is a specialised job. No other castes are involved in knitting the net. It is not always possible to prepare all the nets in the villages of the bahardars. In such case, they depute their respec-

tive majhis to prepare the nets in their villages under their direct supervision.

Generally, ready-made nets are not purchased by the bahardar, nor are they easily available. It is said that such nets might have some defects in the attachment of the different parts or in the number of meshes in the different parts (Chapter V). In case of emergency, of course, a ready-made net is also purchased, but there are very few places where they are available. The main sources are the villages of Kalinagar, Aukshaynagar and Ganeshpur near Kakdwip town. In these three adjacent villages there are many fisherfolk families, originally from Chittagong. They are expert in marine fishing and obviously in knitting nets for the purpose.

Thus, it is seen that the nets are knitted in the villages of the bahardar or in the villages of the majhi where regular checking can be done. In case of necessity, the nets are also procured from some limited number of villages and these villages are invariably inhabited by a large number of marine fisherfolk who can prepare some surplus nets.

Hemp thread. Sometimes small quantities of threads are twisted by the fisherfolk themselves in their indigenous way in their own village as noted earlier. The hemp is purchased from local market, as most of the fisherfolk do not have any land, and whatever little they have are utilised for paddy cultivation, or they are not suitable for the cultivation of hemp. Thus, they have to depend on others for this.

The thread is mostly purchased from wholesale dealers at Barrabazar (Calcutta), Barrackpur (24 Parganas), Sheoraphuli (Hooghly), Chandannagar (Hooghly), and Uluberia (Howrah).

Bamboo and wooden post. The bamboos are generally collected from the groves of different villages (Table 24). The bahardars are always in search for such groves. When the price is finalised, he pays some advance money and reserves it for the next fishing season. Just prior to their departure for the fishing ground, they collect them from the groves with the help of some of the unit members. Sometimes, arrangement is made with the owner to deliver the goods at a fixed place on a particular day. Thus a bahardar who purchased bamboos from a village about fifteen miles from Achipur (P.S. Budge Budge) arranged with the owner of the grove to supply the articles by bullock cart near Budge Budge. In that case, of course, the bahardar sent one of his members to be sure about the supply of the bamboos.

It has been noted earlier (Chapter V) that two types of bamboos

are required for fishing operation. The lighter variety is known as bom bans. It is used as float and to keep the mouth of the net open. Its source is very limited. So the bahardars try to keep the source a secret lest others raise its price.

The other variety of the bamboo is known as tanar bans. Besides purchasing from the groves of the different villages, bamboos are also collected from the godown at Uluberia and Kakdwip.

The wooden posts are mainly purchased from the godown at Kakdwip. A few, however, purchase the posts from a village, named Pujali (Howrah), directly from the owner. They are collected from the said village just before they start for the fishing operation.

The boat. There are 29 boats, rented 25 and own 4, in Jambudwip fishing ground. These 25 rented boats are procured from different sources as shown in Table 25.

Table 25. Sources of boat

Locality	C a s t e / C Muslim	Rajbansi	o m m Kaibarta	u n i t Not known	t y Total
Uluberia (Dist. Howrah)	4	3	—	4	11
Phuleswar (Dist. Howrah)	—	9	—	2	11
Tribeni (Dist. Hooghly)	—	—	1	—	1
Charsiddhi (Dist. Nadia)	—	1	—	—	1
Achipur (Dist. 24 Parganas)	—	—	—	1	1
Total	4	13	1	7	25

It is seen from Table 25 that the majority of the boats are rented from Uluberia and Phuleswar, the biggest dry fish trade centres of West Bengal. The mahajans, or their agents, have their centres there. Now, these agents do their best to secure boats from different places for their clients. Many of the boat owners also harbour their boats there. The agents keep information on their own interest.

It is further seen from the same table that the Muslims and the Rajbansis are mainly the boat owners. No high castes are involved in it. It may be noted here that Rajbansis have a large concentration around Uluberia and Phuleswar. They practise inland fishing in the Ganges. So many of them have their boats for the purpose. In winter

river fishing is not much profitable to them, while the marine fisherfolk need boats only for about five months from October to February. So the Rajbansis can easily spare their boats during that off season and can get it back again in March-April and can carry on their inland fishing during summer or rain. Thus the marine fisherfolk are maintaining a symbiotic relation with the inland fisherfolk.

Food stuff. During their stay in the fishing camps the marine fisherfolk are in need of regular supply of food stuff. Their staple food is rice which is consumed in large quantity. Per head consumption of rice is about 1 kg a day. Thus, with a total population of 243 in the fishing season of 1967-68, they required about 29160 kg of rice for the whole fishing period of about four months.

The arrangements for the regular supply of food are made by the bahardar. So, he has to make arrangement in advance so that regular supply of food is maintained.

The bahardars pay some advance, varying from Rs 500 - Rs 600 each to their respective reliable rice suppliers in the month of July-August. For securing advance money, the rice suppliers often visit the villages of the bahardars and collect the money. With this advance the rice dealers store the required amount of rice or paddy for the fishing season. The paddy thus stored for the fisherfolk is locally husked by the neighbouring peasants.

There are three such rice suppliers* for the marine fisherfolk of Jambudwip as will be seen in Table 26.

Table 26. Source of food stuff

Rice supplier			Rice buyer or bahardar	
Caste	Locality	No.	Locality	No.
Sardar	Laksmipur (near Bakkhali)	1	Baikunthapur (near Tribeni, Dist. Hooghly)	3
			Bansmohan (Dist. Champaran)	4
			Majherchar (Dist. Nadia)	4
Paundra Kshatriya	Frasergunj	1	Basudevapur (near Tribeni, Dist. Hooghly)	5
Mahishya	Kaylaghata (near Frasergunj)	1	Bansmohan	1
Total		3		17

*Of late another rice supplier has come in the field which has been noted later.

It is seen from Table 26 that in most cases the bahardars of a particular area arrange for their rice supply with a particular rice merchant. These merchants belong to three different castes, viz., Sardar (Oraon), Paundra Kshatriya and Mahishya.

It is worth mentioning here that as the rice merchants belong to Frasergunj and they locally procure rice for the bahardars as arranged, the local people find it difficult to get sufficient supply of their staple food and the price rises particularly during the fishing season. This creates a feeling of tension between the local people and the fisherfolk who are regarded as outsiders.

The tension of the local people of Frasergunj rose to its climax in the beginning of the month of October-November in 1967-68. Some of the local youngmen organised an agitation so that rice may not be exported from Frasergunj to Jambudwip. It went to such an extent that they threatened the rice merchants not to supply a grain of rice to the bahardars and tried to snatch away the rice from the boats of some of the bahardars. But the bahardars with their crewmen resisted it and forcibly took the rice. In a joint petition, the matter was brought to the notice of the then Fishery Minister and the Block Development Officer of Kakdwip, and the Officer-in-Charge of Namkhana Police Station was also alerted. The Officer-in-Charge of the Fishery Department, Government of West Bengal, at Frasergunj, supported the case of the fisherfolk. He was asked to give the names of those who were involved in this case. But later on the bahardars held a meeting amongst themselves and decided not to proceed any further; for, if they got involved in a police case, their business would be largely hampered. Then, gradually the tension subsided.

In 1966-67 fishing season also, the fisherfolk had to face much difficulties due to the rice cordoning policy of the Government. Some of the bahardars, then present at Frasergunj, thought of shifting their khunti to Jambudwip due to shortage of fish in Frasergunj. But they could not do so for they were afraid that they might not get their supply of rice. Of course, after about two or three months of the fishing season some of them made a desperate attempt and established their camps at Jambudwip. They secretly used to bring rice and store it under sand.

In the 1967-68 fishing season, the fisherfolk of Jambudwip were much relieved. They found another source of rice supply. A Muslim from Dhaballat with three other co-workers, belonging to the same community, regularly supplied rice, some vegetables and kerosene oil in Jambudwip on cash payment. He used to procure the articles from

Dhaballat. Unfortunately, like the people of Frasergunj, the people of Dhaballat also gradually took exception to this. Once it so happened that when the Muslim trader was secretly taking rice from Dhaballat to supply to Jambudwip, the local people took a stern attitude and chased them by boats. But when the fisherfolk of Jambudwip came to know of this, they jointly challenged the chasers with axes, daps, etc. Then they retreated. I had the occasion to witness the situation and it was felt that if they could catch hold of the chasers from Dhaballat, the situation would have taken a serious turn.

D. Disposal of fish in the camp

Dried fish: It has been noted earlier that according to the terms and conditions of dadan, the borrowers have to supply the whole catch of the season to the agent of the dadandar at a rate lower than the market rate. But they always require some ready money to meet their day-to-day contingent expenses. In this some petty traders, who may be termed as flying parties, come to their relief. They pay flying visits to the fishing camps and purchase some amount of dry fish on cash payment. They have no connection with the dadandars or their agents. Such disposal of fish in the fishing camp is known as *charbecha*. After collecting the fish from the fishing camps, they directly sell them to the arats at Phuleswar and Uluberia and in different retail markets.

As a matter of fact, these flying parties give better price and weight to the bahardars than those of the agents or aratdars of the dadandars. Moreover, the bahardars do not have to pay the transport cost to these flying parties. But due to their moral obligation and economic dependence, they have to satisfy the dadandars with the supply of better quality and major amount of fish even at an economic loss. Moreover, these flying parties with their limited capital cannot collect huge quantities at a time. Their boats again are also smaller in size.

Usually, three or four persons jointly form one such flying party. Sometimes, a single individual may also be the owner. In such parties, the owner always accompanies the boatmen. These parties are mainly from Phuleswar and Uluberia of Howrah and Digra and Junput of Midnapur, the two dry fish trade centres. Those who are from Howrah belong to the fishing castes, Rajbanshi and Dhibar; but the Midnapur ones are mainly Mahishya peasants who dominate in that area. Members of a team generally belong to one caste and they are mostly related as kins. Some of these flying parties have

their own boats while others take boats either on daily rent at a rate of rupees three a day or on contract basis for a longer period.

The agents of Phuleswar also sometimes keep contact with such parties and hand over some money to collect some fish on their behalf. In that case, they get some commission as remuneration. Some of the flying party owners happen to be relatives of these agents. If boat capacity permits, they take dry fish on their behalf from the bahardars who took dadan from them.

The collections of these parties are not much. The estimate of one such party in a single trip is as follows :

Table 27. *Collection of a petty trader*

Area of collection	Amount of collection
Jambudwip	12 maunds
Bakkhali	18 maunds
Junput	30 maunds
Solo	12 maunds
Total	72 maunds

Many such flying parties visit different fishing camps during the fishing season. In Jambudwip itself, during 1967-68 season, there came five such parties—2 from Phuleswar, 2 from Junput, and 1 from Calcutta.

The party from Calcutta was formed by two friends (Kayastha by caste), who worked as clerks in an office. They took leave and started this business on an experimental basis as a supplementary source of income with Rs 4,000 as their capital. Originally, they started an arat for collecting fresh fish at Jambudwip and advanced some money to seven bahardars, ranging from Rs 100-Rs 265. But when the fresh fish collection was not satisfactory, they wound up their arat. So, at the close of the fishing season they started collecting dry fish, so that, they could realise the money, they had already floated.

The boatmen of the said party were one Dhibar and one Malo both belonging to the fishing castes. It also collected fresh fish from hook and line fishing units composed mainly of Rajbansis and Malos. The challan of the fresh fish collection was made in the name of the Malo boatman, so that, if the actual fish catchers are challenged by their dadandars, they might say that 'we are just helping our relatives (which is actually so) with some meagre catches'. Thus, with the plea of kinship relation the actual dadandars are deceived of their terms and conditions.

The above example in which the educated "high caste" Hindus are directly in the field of dry fish trade by establishing contacts with the bahardars, seems to be an exceptional case.

Each of these parties have a few more or less fixed clients in different fishing grounds from whom they collect the catch. The bahardars rationalise these irregular deals as follows: "... these parties are banking on us and are facing many hazards So they should also have some return". Besides getting economic benefit from such parties, the relationship of the bahardars with the flying parties is also guided by an underlying idea of getting their good wishes and avoiding curse lest they (fisherfolk) face any ill luck in the isolated island.

As the forest is owned by the Government Forest Department, they have to secure forest pass at the rate of 0.25 paise per head per week to collect fuel during their stay in the fishing ground.

The 17 fishing units of Jambudwip have also to secure such forest pass. Under the rules of the Forest Department, they can use only the dry fuel of the forest. But, if any green tree is felled by them, they are liable to prosecution. As a matter of fact, they are in great need of fuel for cooking and preparing preservative for their net. The supply of dry fuel in the forest is not always sufficient for them. So, on many occasions they are found to fell green trees.

In southern Sundarbans, 'forest passes' are issued from three different Forest Ranges under which there are different stations. These are as follows :

- (1) Namkhana Forest Range—Namkhana, Sikarpur, Pathar-pratima, Nalgara, Kultali, etc., (2) Basirhat Forest Range—Rampura, Bagna, Sajnakhali, etc., (3) Matla Forest Range (Canning)—Matla and others.

The forest pass may be secured from any of these stations. Besides this, a boat pass has also to be secured by each party who collects dry fish from the fishing camps. The amount varies from 0.20 paise to Rs 2.25 according to the capacity of the boat, e.g., upto 10 quintal the rate is 0.20 paise, 20-40 quintal it is 0.40 paise, over 400 quintal it is Rs 2.25. Besides that, they have also to pay sales tax @ 6%.

Normally, the bahardars send their catch by hired boats to their respective aratdars, the representatives of the mahajans at Phuleswar at their own cost. But the aratdars also know that sometimes the bahardars secretly dispose of some of their catch in the fishing

grounds to different flying parties. So, sometimes the aratdars also send their boats to their respective bahardars to collect the catch at their own cost. During their visit there, they also act as flying parties, i.e., in addition to their clients they also collect as much they can from others too on cash payment. Under the circumstances, due to rivalry on economic issue, conflict may develop between the two aratdars when other bahardars together with their members try to settle it on the spot.

The aratdars generally send their boats to their bahardars when the demand for fish is expected to be high and if the bahardars fail to send their supply for a considerable period*. Thus expecting a heavy demand during a fair in Jangalbilas (about 4 miles from Uluberia) held in the Paus-sankranti (December-January) and continues for the whole of Magh (January-February), two of the aratdars of Phuleswar sent their boats to Jambudwip to collect fish about a week before the last day of the month.

Besides these, one or two individuals may be met with in some fishing units. They are not members of the fishing units, although quite often they stay with the fishing units. They trace some kinship relation with one or other of the members. Such an individual is provided with free food and lodging and in return he does some light work, for instance sorting of the fish, and the like. On closer enquiry it transpired that such persons had usually given some loan to some bahardars on condition that they would supply them some dry fish. They, thus, make a profit by selling them direct to retail shops in different market centres, like Phuleswar, Uluberia, Uttarpara, Tribeni, Sheoraphuli, Magra, etc.

In Jambudwip, one such individual was met with. He was a Kaibarta and was staying in one of the fishing camps, the bahardar of which was his distant relative. He had given Rs 1,200 to five bahardars (Rs 200 each to four bahardars and Rs 400 to one). The money so advanced, included about Rs 300 he had taken from his sister and the rest was his own. At the end of the fishing season, he received about 20 maunds of fish, and planned to dispose it off in different retail shops.

Fresh fish : The fishing units of Jambudwip are mainly involved in dry fish trade. Due to their isolated set-up, lack of modern transport facilities and absence of fresh fish market centres in the

*Normally the bahardars send supply after every twenty or twentytwo days.

locality, the fisherfolk of Jambudwip do not depend on the sale of fresh fish. But when a huge quantity is hauled, they generally bring them to Frasergunj or Namkhana and dispose them off on cash payment to fresh fish aratdars. At Frasergunj there are five such arats (Muslim 2, Mahishya 1, Paundra Kshatriya 1 and Rajbansi 1).

In Jambudwip, there is one arat for collecting fresh fish from the fisherfolk of Jambudwip. Four friends (Malo 2, Rajbansi 1, Vaidya 1) are running it on partnership basis. One of them, a Malo, who is actually the agent of a Kayastha mahajan has his head office at Calcutta (Chhagal Hata, a whole sale market at Sealdah).

It has been noted earlier that the fisherfolk of Jambudwip are not much involved in fresh fish trade. They supply only a little quantity of fresh fish to their local aratdars (Appendix D). The latter, however, collect as much as they can from other fishing units and store them with ice, brought from Namkhana. When a substantial collection is made, they transport it by country boat to Namkhana, from where it is sent in trucks to their mahajans at the Sealdah whole sale market.

The owner of the country boat, which is used for transporting the fish from Jambudwip to Namkhana, is a Mahishya residing in Namkhana. The boat is plied by three men, all residents of Namkhana,—the owner himself, one of his relatives and another man belonging to the Paundra Kshatriya caste. The rent of the boat is Rs 25 per day inclusive of everything (food, forest pass, etc.). When the boat returns from Namkhana to Jambudwip, it carries ice blocks (about 3 maunds) at a cost of Rs 6 each, which are supplied from Calcutta by mahajans.

The particular fresh fish aratdar of Jambudwip has contact with four lorry owners who carry the collection from Namkhana to Calcutta at a rate of Rs 3 per maund. The lorry owners belong to the Muslim, Mahishya, Brahman and the Rajbansi communities. The porters at Namkhana are mainly the local Paundra Kshatriyas and Mahishyas. Their charge being Rs 1.25 per box (weighing about four maunds). A representative of the aratdars accompanies the lorry to hand over the collection to the mahajans at Sealdah whole sale fresh fish market.

In short, the function of the aratdar at Jambudwip is that he collects the fresh fish on cash payment. He temporarily preserves his collection with ice and transports them by boat to Namkhana. From there it is transported to the mahajan at Sealdah by lorries. It is then auctioned there by the mahajan and a commission at 4% is

taken by him. The rest of the amount is sent to the aratdar. Besides these, a sum of Re 1 per box of fish is deducted from the account of the aratdar for the welfare and maintenance of the market. This amount is known as bazardan (gift for the market).

E. Transporting the dried fish

From fishing camp to Uluberia or Phuleswar collection centre :
The dry fish are transported from the fishing camps to the dry fish trade centres of Phuleswar and Uluberia by country boats, and handed over to the respective aratdars of the different bahardars. The carrying capacity of these boats is between 275 and 300 maunds. The cargo boats reach Kakdwip via Satamukhi Ganga. From there they go to Uluberia via Diamond Harbour following the upstream of the river Ganga. During the fishing season, 60 to 70 cargo boats come every month to Phuleswar and Uluberia from different fishing camps.

There are altogether 12 cargo boats to carry dry fish from Jambudwip, Frasergunj and Bakkhali. Of these seven boats mainly carry the collection from Jambudwip. All the owners of the seven boats, originally immigrants from Midnapur, are now settled at Frasergunj. They belong to Paundra Kshatriya (4) and Mahishya (3) castes. The manjhis of the boats also belong to the same castes (Paundra Kshatriya 3 and Mahishya 4). Besides the manjhi, there are three crewmen in each boat. Thus, four men constitute a unit in a cargo boat. One of these four members, who is generally the manjhi, is directly responsible to the owner of the boat. Under his guidance and instructions, the other three work. They are taken either on partnership basis or on daily wages at the rate of Rs 3 per day plus food.

The owner may hand over his boat to the manjhi on either of the two conditions, viz.,

- (i) he will get 25% of the total amount collected from the bahardars at the rate of Rs 1.50 per maund ;
- (ii) he will get 36% of the total amount collected from the bahardars provided he stands for the cost of food of the cargo boat.

The maintenance cost of the boat is borne by the owner.

It is the responsibility of the manjhi to hand over the collection to the respective mahajan or aratdar of the different bahardars. After loading goods, the bahardars of course, go straight by land to save time to the aratdar at Uluberia to whom the collections have to be handed over,

On their return, the majhi brings the necessary articles, like kerosene, hemp thread for net knitting or repairing, etc., for his clients. The bahardars who are from different villages of West Bengal, pay short visits to their natal villages. Thereby they keep contacts with their families and also with those of their crewmen. On their return to the camps, they give the message so collected, to their crewmen. Thus contacts with the families are maintained.

So long the crewmen are in the boat, they lead a special way of life till they return to their respective houses. They are supplied with fish and other necessities. On their way, it has become a convention that they will take the dry fish which are being carried over in their boats.

The bahardars, who want to transport their catch by such cargo boats, have to pay Rs 1.50 per maund. They may as well reserve the boat for Rs 250 to Rs 300 per trip, inclusive of everything.

Generally four or five bahardars jointly transport their catch in the same boat. Separate compartments are made for that purpose. But when one or two bahardars have huge collection, they jointly or individually reserve the whole boat. It is considered to have a prestige value. One or two bahardars of Bakkhali were quite often found to reserve a cargo boat individually during the fishing season of 1967-68. They were always held as reference models of prestige by the fisher-folk of Jambudwip.

(2) *From Uluberia or Phuleswar collection centre to the market :*
In the previous section, it has been described how the collection of the fisherfolk reaches Uluberia and Phuleswar collection centres. When the collection reaches the hands of the aratdars or their agents at the collection centre, it is their responsibility to send them to their respective mahajans in trucks or trains, whichever is more convenient. The mahajans also take active interest in transporting the goods from the arats. They also send their managers to assess the collection in their respective arat and accordingly necessary arrangement are made for the transport of the goods.

The major amount of the dry fish is sent to the Territi Bazar in Calcutta (the headquarters of the mahajans) from where it is sent to different parts of India, like Orissa, Madras, Bombay, Assam, and even upto Nepal and Bhutan. Sheoraphuli, being an important centre, also attracts a substantial portion. Orissa has a great demand for the dry shrimps and these are sent directly from Phuleswar. Incidentally, it may be noted here that the Dhibar have practically monopolised in drying shrimp. A large portion of it comes from Sagar Island.

Some of the market centres where the dry fish are sent from Phuleswar or Uluberia are given in Table 28.

Table 28. Market and traders*

Localities	Religious affiliation of the traders who receive the supply
Territi Bazar (Calcutta)	Muslim (Mopla)
Sheoraphuli (Hooghly)	Hindu (Rajbanshi)
Chaibasa (Singhbhum)	Muslim, Hindu
Chakradharpur (Singhbhum)	Muslim
Tatanagar (Singhbhum)	Muslim
Matigara (Darjeeling)	Hindu (Malo, Kaibarta)
Airangpur (Singhbhum)	Hindu
Siliguri (Darjeeling)	Hindu
Jalpaiguri	Hindu
Bisnupur	Hindu, Muslim

It is worth mentioning here that the major amount of the dry fish trade is in the hands of the Muslims, besides the Mopla money lenders, who virtually control the whole dry fish trade in West Bengal. As wholesalers, some Hindus have moved into this field in the recent years. By and large, they belong to the fishing castes, like Rajbanshi, Dhibar, Kaibarta, Bagdi, etc. It has already been mentioned that not a single business man of the Marwari community, who have practically captured many other trades of India, has come in this field. Thus, it appears that the dry fish trade is by and large limited to specific caste or community groups. Certain upper caste Hindus, particularly the Marwaris, have avoided investment in this trade.

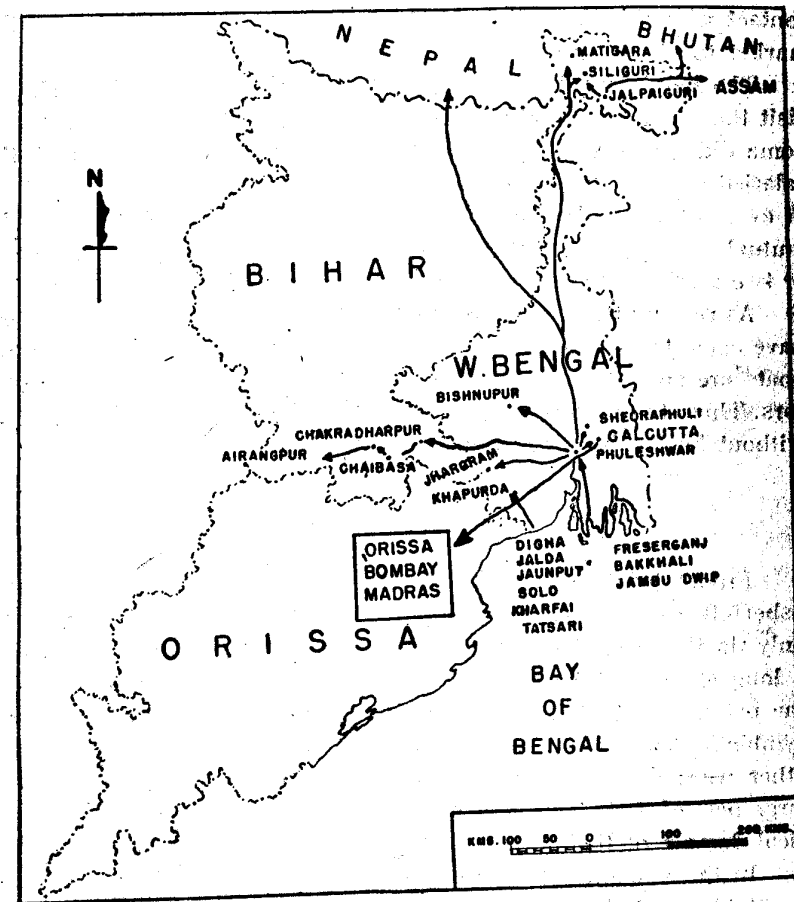
F. Weekly market

Due to their isolated set-up, the fisherfolk of Jambudwip do not have constant and regular contacts with the peasants around Frasersgunj area. They, however, occasionally visit the weekly market at Frasersgunj which is held twice a week. From there they purchase rice, spices, mustard oil, soap, kerosene oil, molasses, vegetables, etc. Thus a symbiotic relation is maintained with the local peasantry. Except rice, their other necessities are very limited.

As the fisherfolk have cash money in their hands, the price of all the commodities, particularly vegetables, rice, etc., go up in the

*See Map 4

weekly market during the fishing season. As a result, the actual producers of the locality reap a good profit. But the local poor buyers cannot compete with the high prices offered by the fisherfolk. Thus, a conflict is always noticed in the weekly market between the local buyers and the fisherfolk.



Map 4. Market Relation

The weekly market at Frasersgunj is also a sort of meeting place of the fisherfolk who have their temporary camps in the vicinity, like Frasersgunj, Bakkhali, Kalisthan, Jambudwip, etc. Practically in all these fishing camps they have their friends and relatives. So all the fisherfolk of Jambudwip are willing to attend the market regularly to

break the monotony of their isolated life and to meet their friends and relatives. Besides, by attending market they expect to get information about their families from anyone of other camps who might have visited the place in the mean time. Postal letters are also distributed in the market. It is also another attraction to the fisherfolk. Thus, the market seems to be a very important place to keep their contact with their families. The bahardars also meet together in the market to discuss many of their problems.

The bahardars, however, do not like that their members should visit the market regularly, for their work at the camps would suffer. Some difference was observed between the shared units and the salaried ones in this regard. It was noted that one or two members of every shared unit pay their visits to the weekly market in turn by mutual arrangement. But in salaried units, the bahardars depute one or two members to purchase the necessities from the weekly market.

As regards the arrangement of the boat for the trip, the bahardars have come to a mutual arrangement amongst themselves. One or two boats are spared alternately by the bahardars for the intending visitors. Thus, the pressure on the limited number of boats is minimised without hampering anybody's interest.

DISCUSSION

From what has been said above it will be obvious that the marine fisherfolk cannot be treated as self-sufficient economic isolates. Not only do they sell the major part of their catch to outsiders through a long chain of intermediaries involved in the marketing operation, the procurement of their basic tools and food involve them in varied symbiotic relationship with the general peasantry of the region. In other words, they are an integral part of the peasantry although a large part of their income is from the sea which is outside the ecological domain of the peasant society.

In the economy of the fishing trade and regular supply of fish to profitable market centres various types of middlemen have emerged, and they have a great chain organisation. What seems to be important here is that in an undeveloped country like India where the opportunities for occupation are limited and further circumscribed by caste monopoly, such middlemen naturally crop up for their subsistence, provided it does not disturb their caste hierarchy for taking to such non-caste occupations. The distance of the producing centre from the real consumers also seems to be a factor which contributes to the

emergence of a number of middlemen, i.e., greater the distance, greater is the possibility of emergence of more middlemen.

The whole fishing economy is finally controlled by only a few mahajans of Calcutta who are actually the Moplas of Kerala. A substantial amount is, of course, controlled locally by a wide range of castes on high rates of interest. The Moplas, who are the *dadandars*, have hardly any direct contact with the primary producers or their bahardars. These mahajans have various types of agents or sub-agents (e.g. *aratdars*), some of whom are in direct contact with the bahardars, while some others are engaged in different stages of its operation, like transporting, supplying of rice, etc.

For transporting the dry fish by boat from the fishing camp in southern Sunderban area to Phuleswar or Uluberia, the main centre of dry fish trade in West Bengal, the Paundra Kshatriyas and the Mahishyas, who are numerically and economically dominant in the area, play the most important role. Some of the agents or *aratdars* are the owners of the modern means of transport, like lorries, tempos, etc. But the actual driving operation is done by the non-Bengalee Hindus.

In short, the whole organisational system of the trade operates as an organic whole. Each one has a specific function to perform, the breakdown of which is bound to disturb the whole chain.

The primary producers in the chain, i.e., the fishermen themselves gain only just above subsistence level in the bargain. Unlike even the poor cultivators, they (except the bahardar) do not even own the primary tools of production and are more firmly under the stranglehold of the financiers than the farmers who are under the village money lenders.

It is seen, while the production end of the chain is virtually limited to the traditional fishing castes, the rest of the chain is manned by people belonging to a wide range of castes and communities. There are of course, some tendencies towards monopolistic specialisation by some particular communities or groups even in this sphere.

CHAPTER EIGHT

CO-OPERATION AND CONFLICT

In the island of Jambudwip, the fisherfolk maintain a spirit of co-operation, both within their units and in between the units. No doubt, there are conflicts at times. An attempt has been made in the following pages to delineate these aspects of the life of the fisherfolk in the fishing camps.

A. Co-operation

Their level of co-operation has been briefly described under three broad aspects, viz., socio-economic, recreational and ceremonial kinship.

Socio-economic level

In the fishing camps, they lead a Spartan life as if on the war front. But the human element is never ignored. There is, no doubt, hard competition in the sphere of their collection of catch and there is a strong sense of jealousy if one excels others in that respect. But they are also very much interested in leading a friendly and co-operative life and to relieve their mental tension in their isolated set-up. At the time of any ailment, they depend much on fellow members.

Throughout the fishing season in their camps, they hardly have time to think about their friends and relatives who are left in their natal villages, but they form a community of their own in the camping ground. There their focal point of discussion is concerning fish, fishing, or related activities, although they cherish a latent anxiety about their relatives and friends left in the natal villages. When the bahardars return to the fishing camps after disposing off the collections at the arat at Uluberia, they are warmly received by the unit members and they enquire of them about their families. Sometimes the bahardars try to pay a short visit to the natal villages of the unit members when they go to dispose off their catch. On their return from the arat, some bahardars are found to bring sweets to entertain his crewmen when the collection is good. Some are also entrusted by their fellow bahardars to bring thread, kerosene oil, etc., for their camp use,

Ganga puja is the most important festival of the fisherfolk. It is held on the last day of the month of Paus (December-January) and some fairs are also held on that occasion in the vicinity, as at Frasersgunj and Sagardwip. The fisherfolk cherish a great desire to attend those fairs. But it is not possible for all the unit members to go there all at a time. So, mutual arrangements are made to attend the fairs in batches and when the bahardars attend, they return with sweets. Some also give some presents, like vests, to their crewmen. On the occasion of the annual Ganga puja, which is held in every unit, invitations are extended to all the other units in the island and feasts are also given reciprocally.

On the same occasion, a socio-religious observance connected with their dead ancestors, *batsarik sraddha* (i.e. annual *sraddh* ceremony), is performed with a Brahman priest according to the Hindu scripture. It is important to observe here that to perform the socio-religious ceremony connected with the dead ancestors, it is customary that ceremonial shaving has to be done by a barber, belonging to the Napit caste. But in the fishing camp, shaving is done by the fisherfolk themselves and they rationalise as follows: "Where would we get such barbers in the fishing camp? . . . So we should help each other." This is also done on non-ceremonial occasions in the fishing camps without any fear of social ostracism.

Sometimes, even economic loss is foregone by some units for the sake of maintaining fellow feelings. It was observed that once a wild pig was hunted by some members of a particular unit which could be sold at about Rs. 80 at Frasersgunj, but it was distributed to the other unit members instead for the sake of corporate enjoyment.

Again, the feeling of a fellow co-worker in a unit is also given proper weight even at the cost of some economic loss. It was found that when a fellow co-worker feels that the fishing net is to be treated with preservative even before the scheduled time, due respect is paid to his feeling and the net is treated accordingly.

In the arrangement of transport for attending the weekly market, a sense of co-operation is also noticed. One or two boats are usually spared by any of the seventeen units for the use of the visitors of all the units.

Coming back to their economic activities, as has been noted earlier, the shoal of fish changes the course of movement from time to time. Accordingly, the fisherfolk also change the place of their net-setting. If a fishing unit changes its phar (wooden posts, etc. with which the nets are set) and sets up a new one in another place, no

other fishing unit has the right to set its net in that deserted phar, known as bhasa phar, throughout the season without prior permission. The owner may, however, set his net again in that deserted phar if the shoal of fish takes that direction and he finds it to his advantage. Thus, the fisherfolk have developed a conventional moral code of non-encroachment amongst themselves for their livelihood. This may be termed as their tenure system valid for one fishing season only. Normally, the bhasa phar is allowed to be used by a neighbouring bahardar if he desires to do so.

As a matter of fact, all the fishing units in the island help one another on temporary loan basis with all the necessities of the fishing camp, like food-stuff, accessories to net like thread, wooden posts, bamboo poles, etc., when urgently required. The bio (Fig. 28) or the wooden hammer, which is an essential apparatus to plant wooden posts into the sea bed to set the net, was not possessed by all the units in the island. There were only seven such wooden hammers in seven out of the seventeen units. Of these, only five were found in working condition till the close of the fishing season and were used by all the seventeen units. Further, it may be noted in this context that two boats are necessary to operate the bio. But those who have only one boat are helped by other units for the purpose. Sometimes, even the help of man power is sought. Again, only three spinning wheels, owned by three units, meet the demand of all the units.

But a fisherman never parts with his net. As the net is the main source of livelihood, and as it may be lost at any time, none likes to part with it. Further, their superstition that some evils might be done to it is also not ignored by them. Thus it seems that both superstitious belief and rationale stand in the way of parting with the net.

Recreation

Their spirit of co-operation is also noticed in the ways in which they pass their leisure moments and in their recreational activities as well.

The fisherfolk have practically little leisure during the fishing season. They still try to add a relish to their otherwise hard life in their social isolation. Thus, it is seen that even when hectically engaged in economic activities, like fishing, sorting and some other activities, they try to find some recreation by singing bhatiali songs

or recital of verses from sacred literatures, like the Ramayana or the Mahabharata.

It should be noted here that the recreational activities are more apparent in the shared units than those in the salaried ones. This is but natural as the bahardar and the khuntir majhi (general manager of the fishing camp) of the salaried units always try to utilise the man power maximally for their own economic interest. So, even during the leisure time, they try to engage the able bodied crewmen to knit the net or in similar economic activities. But net knitting or other related activities are absolutely lacking in the shared unit. It is due to the fact that all the persons comprising a shared unit have a moral and ethical obligation to do their best solely to increase their catch for the benefit of all, but not for the interest of any particular individual. Net-knitting or other related activities which concern the interest of the bahardar or any other individual are not tolerated by the other members of the unit.

It has been noted earlier that throughout the whole lunar fortnight, the catch is not same. It varies and it has direct correlation with the rate of water flow. When the haul is not much, the members of the unit get some leisure time for their recreational activities. But it is worth mentioning here that the fisherfolk, either shared or salaried, do not look forward for merriment and recreation. They are very earnest about the jobs connected with the fishing trade. They also have a good deal of job satisfaction in their activities. When they have no activities in the camp connected with fishing, they feel bored. On the other hand, when they have plenty of work connected with fishing under their disposal, they do work practically round the clock without any complaint whatsoever. Rather, the members of an unit work hard in a spirit of competition in a cheerful mood, so that they can supersede others in their collection.

Thus, it seems that their job satisfaction leads them to work hard and to take considerable risk even sometimes at the cost of their health and life, when they are in the vast open sea manipulating the net for better haul. No doubt, the economic considerations are there. But that is not all. A finer sense of pleasure is also interwoven with their regular activities in the fishing camp.

Variety is the spice of life. And the hankering for variety is not lacking even in the fishing camps. Whatever little scope there is, they try to utilise it in their own way. It might be in their social, religious, economic, or political life or in just pure and simple recreational activities.

For pure recreational purpose, their activities are very limited. Playing of cards is one way of recreation in which besides their own unit members others also sometimes join. *Kapati* and *chorpalanti* are the only two games which necessitate physical movements. Adult members take part in the former and minors in the latter. Generally, they play these games at the close of the fishing season when they have little work at hand. But the bahardars or the khuntir majhis seldom join in such games. But performing kirtan or reading out verses from the sacred books, particularly in the night, are common features for all. In the kirtan, the members of the other units are also invited. In majority of the units, performing kirtan is a must on purnima and on Thursdays. They are believed to be auspicious. Thursdays, in particular, are known as Lakshmibar (day of the Goddess of wealth). As a matter of fact, these fisherfolk also have a special worship for the Goddess Lakshmi in their families in their natal villages on every Thursday. Each family has a shrine for Lakshmi, where regular worship is performed with fruits and flowers by themselves. In case of any imminent danger or to get sweet water in the shallow well, vows are also made and kirtan songs are performed.

During the recital of verses from sacred books, besides their own members, members from the other units, particularly those of the shared ones, gather together to listen to the verses. The members of the salaried units, however, seldom go to other units to join such sacred sittings lest their bahardars or khuntir majhis get annoyed for wasting valuable time. Further, it is found that even at the time of listening to the sacred verses, they go on doing some job, like knitting the net, winding up the threads for knitting the net, etc. Sometimes these verses are also further discussed in light mood, when four or five persons gather together in mending the net.

Bhatiali songs are mostly sung when they are in the sea (Appendix K). Singing of Hindi film songs are also not uncommon in the fishing camps or when they are in the sea.

For their recreational purpose, all the fishing camps have some arrangements of their own, such as musical instruments and sacred books. It is not necessary to have all the articles in every unit. All the units mutually exchange such belongings.

In the Table 29, a total list of all such items of the seventeen units are given.

From the table, it is seen that the sacred books of various kinds play a very important role in spending the leisure hours of the fisherfolk. But the games involving body movements are not preferred. It

might be due to the fact that their economic activity itself is very strenuous. So, after performing their techno-economic task, they may not feel inclined undergoing any such recreational activity which necessitates body movements. Such games are performed, and that also very rarely, only at the close of the fishing season when they have plenty of time.

Table 29. Musical instruments and sacred books

Type of article	Name of article	
A. Musical Instruments		
(a) Drum	Khol	4
	Dhol	3
(b) Percussion	Kartal	4
	Kasha	15
(c) Blowing of air	Sankha	3
	Harmonium	2
(d) String	Ektara	1
	Khamak	2
	Dotara	1
(e) Electrical	Transistor Radio set	2
B. Sacred Books		
	Mahabharat	3
	Bhakti Tatta Sar	1
	Sarabali (depicting the glory of Radha and Krishna)	1
	Radha Krishna Bilas	1
	Gita	4
	Pravas Khanda	1
	Bhakta Mala Grantha	1
	Gajir Pala	2

It may further be noted here that at the close of the fishing season, when they begin to feel keenly for their families, the interest for their techno-economic task slackens perceptibly, particularly when the catch collection decreases. The ordinary members of the unit are then in favour of winding up their khunti and to return home. Once it was observed in a khunti that some members had hoisted a flag as is done before winding up a khunti for the season, and raising slogans "*Bande Mataram,—Amader dabi mante hobe,—naile khunti bhangte hobe,*" i.e., (you bahardar) you will have to

agree to our demand, otherwise you will have to wind up the khunti. The spirit of the slogan, of course, was really not to raise any agitation, as such, against the bahardar, as was observed even by those who raised the slogans. Rather, it was apparent that it had some recreational motive behind it although they had some restlessness for their families due to long absence from them. However, through all these recreational activities they minimise the tension of their isolated life and form a corporate society.

Ceremonial kinship

In the above pages an attempt has been made to delineate the interaction of the fisherfolk on intra and inter-unit levels and to bring into relief their co-operative spirit in the fishing camps. It will now be seen that social interactions of these fisherfolk are extended to some non-fishing members of the vicinity by developing ceremonial kin ties.

It is not always possible for the bahardars to carry with them all the belongings to their natal villages when they wind up their camps. They try to keep some of the luggage in the custody of friends in whom they have absolute faith and who have their permanent residence in proximity of the fishing grounds. So the bahardars try to develop ceremonial or fictional kin like ties with them. Such ceremonial or fictional kinship is fairly common among the fishermen, particularly among those who have visited the fishing ground for some years. These ceremonial kin, such as *dharma-baba* (god father), *ma* (mother), *bhai* (brother), etc., do not necessarily belong to their own caste. Usually, a person with fairly sound economic status is selected for such relationship and they are often very helpful to the bahardars and the crews when they are away from their family life. Reciprocal invitation on ceremonial or other occasions also give them a touch of family life. Thus, they get both emotional and economic support through such *ad-hoc* relationship. These relationships continue to persist even when they return to their natal villages through interactions in different spheres of their life.

The development of such ceremonial kinship bondage seems to be situational. The fisherfolk visit the same area year after year leaving their families in their natal villages. The sympathetic help of some local influential persons sometimes becomes essential to them and, as such, it is not unlikely that they would develop such a ceremonial kinship bondage. A careful scrutiny of the spatial distribution of

these ceremonial kins reveals that all of them are influential persons and are located either close to the fishing camps or near the market centres of the marine fishing complex, like Uluberia or Kakdwip, which fall on the route of their voyage and with which they have to keep regular contact throughout the fishing season for the smooth running of their business.

In spite of all their friendly relations and co-operative spirit in the fishing camps, they, at the close of the fishing season, begin to look forward very affectionately for their family members, friends and relatives left in their natal villages. It was observed that an affectionate father had been making a miniature boat for his dear minor son during his leisure period. Some may also be observed to have some collection of dry fish or to preserve some 'good quality' fresh fish with salt for their consumption at home. Not only that, but their topics of discussion also change and centre round family affairs at the fag end of the fishing season.

B. Conflict

In the fishing camps of Jambudwip, although the fisherfolk develop a cohesive moral order, instances are not rare when conflict between both intra and inter-unit members crops up.

The conflicts mainly arise in connection with their fishing activities. As regards the nature of the conflicts, they may be classified under two broad categories, viz., (1) intra-unit conflict and (2) inter-unit conflict.

Intra-unit conflict

It has been noted earlier that fishing is a hard activity. Sometimes, members have to work practically round the clock. Under the situation, it is but natural that their mental condition is in a state of high tension. So it may flare up even on the slightest provocation with any member of the unit, particularly, if the catch is not up to their satisfaction.

But the bahardar and khuntir majhi must have the quality to tackle all such situations and they must have immense patience and presence of mind. It has been observed that on many occasions when two members start quarrelling while doing a piece of job, those who are present there try to settle the dispute. When their attempt proves futile, the bahardar or the khuntir majhi comes forward to manage the situation. But, if even then the situation cannot be controlled, they depute a third man to do that job or they themselves start that

work. Under the situation, those who initially started the quarrel begin the work again, or a third man releases the bahardar or the khuntir majhi.

But, when the dispute cannot be settled within the unit itself in spite of the repeated intervention of its members, the matter is brought to the notice of other units. This will be described later. It should be noted here that the bahardar never encourages to refer the dispute of his unit to other units. After careful scrutiny of the situation, it is revealed that the bahardar tries to suppress any dispute of his unit lest his reputation is marred, hampering recruitment of his members in future undertakings.

When a minor member of the unit quarrels with an elder one, the former is forced by others to touch the feet of the latter and beg pardon of him. Such disputes are not given much importance.

Inter-unit conflict

Inter-unit conflict in the fishing camps mainly arises in connection with setting of the net. It has been noted earlier that all places in the sea are not suitable for setting net. According to the convention of the fisherfolk, one is not allowed to set his net in a line, either in front or behind another's net. But there is no bar to set on any side of it. This convention is a corollary to the fishing technology of the fisherfolk operating such bag nets which automatically rotate with the current as noted earlier. If one net is set in front of another, both lose the catch, either of the tide or of the ebb.

In case of any breach of this convention, an *ad hoc* panchayat is formed. The panchayat is not necessarily formed of the bahardars only. Some intelligent and smart members of the unit are also included. In the island of Jambudwip, the *ad hoc* panchayat is normally formed with about eight persons. Out of these eight members, four are bahardars and four are ordinary crewmen of different units. It may be recalled that there the fishing units are from West Bengal and Bihar (West Bengal-10, Bihar-7). Amongst the eight members of this panchayat, only one is from Bihar and the rest are from West Bengal. But it should be noted here that the members of the panchayat are not fixed nor are they elected. Some influential members are just informed to gather on a fixed date at a fixed place to settle the dispute.

The persons who want to call the panchayat send intimations to all the khuntis of the island regarding date, time and place of the panchayat. Although all are informed, very few attend it. But such

influential members of the island must be present, whose decision all comply with. The panchayat is held in the khunti of those who want to call it.

In case of any dispute regarding setting of the net, as noted earlier, the panchayat hear the evidence of both the parties and try to compromise it then and there. But if the parties do not agree, both of them are taken in a boat and a piece of log is dropped into the sea from a fairly long distance and its movement is minutely observed. If the log enters straight into the net of one who sets the net later in front of that of the other, he has to remove his net for the interest of both. But, if he refuses to do so, the other bahardars with their crewmen force him to do so. In extreme cases, they even have the right to force him to wind up his khunti from the island itself. But such extreme cases rarely arise.

In the beginning of the fishing season of 1967-68, one such case of inter-unit conflict regarding setting of net had cropped up and was settled in the way as referred to above. The bahardar, who set his net later in front of that of the other, had to comply with the verdict of the panchayat and remove his net and the tense situation subsided. Both the parties entertained each other in their respective khuntis in which other bahardars also joined. The importance of such entertainment, particularly after some conflict, is of much significance in the life of the fisherfolk in the fishing camp. It leads to develop cohesion instead of fission.

But the territorial alliance of the fisherfolk in the island cannot be ignored altogether. It was evident in one of the major inter-unit conflicts between a unit of Bihar and one of West Bengal. The reason of the dispute was of a minor nature. One of the bahardars of Tribeni (Hooghly) area anchored his boat in the ghat (where the boats are anchored at the shore near one's khunti) of a bahardar of Bihar. The latter protested in harsh words and asked for the removal of the boat immediately. Shortly, the situation turned serious. The numerical dominance of the bahardars from Tribeni area with their crewmen played some significant role in that conflict. All the people from Tribeni area formed one group and those from Bihar formed another and gradually the situation became violent. Then the most influential bahardars, with whom many of the present day new bahardars and their crewmen had previously worked, intervened and brought the situation under control.

A few days later, a panchayat was held with the representatives of both the parties. It was decided that both the bahardars who originated the conflict should jointly give a feast to the members of both

the units. Ultimately, of course, all the bahardars with a few of the ordinary members of their units also joined that feast.

The menu of the feast was, of course, restricted to their daily diet, i.e., rice and fish curry. The tension was thus released and they became friendly and co-operative to each other again. Thus, it appears that in spite of all their conflicts, either intra or inter-unit, the fisherfolk as long as they are in the fishing camps have an innate tendency to live in a spirit of mutual co-operation and understanding. That spirit is always reflected in their behavioural attitude and the mode of the decision of the panchayat. The whole thing is rationalised in the way that "we, the ruffian fisherfolk, might do something wrong on the heat of the moment, but we never pursue it..... We have left our friends and relatives in our village If we quarrel here among ourselves, with whom will we live?" This clearly shows their attitude to each other.

Another significant role of the panchayat in the life of the fisherfolk is to control the free movement of personnel from one unit to the other in the same fishing season after accepting the bayna (advance money). It is customary with the fisherfolk that once anybody accepts some advance money and agrees to accompany a particular bahardar in the ensuing fishing season, he cannot break this unwritten contract without the prior consent of the bahardar from whom the advance was taken. Such a convention is absolutely necessary for the bahardar to run a fishing unit, for relying on his personal undertaking he invests a lot of money. Now, if he fails to turn up at the last moment, it will not be possible for him to recruit a fresh member and he will have to face much difficulty in running the mission*.

Besides these, the panchayat has also some subsidiary function in the fishing camps. Once it was observed that some members of a particular unit got a piece of gill net in the open sea. The proprietor of the net was unknown. They brought it to their khunti. The estimated cost of the article was about Rs. 500. After about four or five days, the proprietor with his crewmen came to the island of Jambudwip in search of his lost net. To be sure of his proprietorship, an *ad hoc* panchayat was formed with those who collected the net from the sea, some influential members of the island and those who were claiming the net. A panchayat was held in the khunti of those who got the net. The person claiming the net had to prove his proprietorship. For that purpose, he pointed out the number of the pieces

*For further details, see Recruitment of the unit members, p.25.

of the lost net, the texture of the rope which passes through the upper series of meshes of the net, etc. These proofs convinced the members of the panchayat and the net was returned to its owner. Then he was asked to donate Rs. 20 as a token gift to those who got the net, but ultimately he paid Rs. 15 for their enjoyment and all were satisfied. The said amount was, of course, utilised in the annual Ganga puja in their khunti.

Thus it is clear that the fisherfolk do not like to misappropriate others' fishing gears. They are returned to the real owner when he claims with, of course, substantive proofs. When the question of the token gift in terms of money arose, many of those who were present there, repeatedly asserted, "we are the true sons of fishermen - if we do not want to keep other's gears if the deity Ganga deities, we will get plenty (fish)".

DISCUSSION

The life of the fisherfolk in Jambudwip manifests a spirit of co-operation and co-ordination. It is what is expected in as much as such a spirit helps them to develop a cohesive moral order, thus relieving to some extent, their mental tension and anxiety as a result of long separation from their family life and facing the hazards and uncertainties of a risky occupation.

It is evident in their social, religious, economic and political life, and more so in activities connected with their fishing operation. Thus mutual borrowing of articles, necessary for camp use on short term loan, is a common affair in the fishing camps. No doubt, some amount of jealousy is evident among the fisherfolk in respect of their haul. Again, superstition supports the economic consideration of avoiding the lending of a net to the fellow bahardars even in the case of dire necessity.

In a state of social deprivation, they try to utilise, either consciously or unconsciously, whatever little scope they have in the isolated fishing camps to scale down the boredom of their life. Thus, offering feasts to the different unit members during the annual Ganga puja, annual *sraddha* ceremony, or on occasions like these, bring them into close touch with each other and act as healers to any conflicting situation.

Different forms of recreational activities, like participation in communal kirtan, gathering to listen to the recital of holy verses from sacred books, like the Ramayana and others, mutual exchanges

of musical instruments or sacred books, etc., also contribute considerably in this direction.

As a matter of fact, fishing itself has a great job satisfaction to them. They would work practically round the clock without grudging anything when there is a bumper haul. A good catch on a particular day stimulates them to get more and more and so they work more vigorously risking even their lives. On the other hand, when after the fishing season, they return to their natal villages, they have to engage themselves in different types of non-caste occupations, like rickshaw pulling, wage labour, etc., to which they are not much accustomed and which are not after their liking. But they follow those avocations for their bare subsistence. As such, it was noticed that a 'good earning' from rickshaw-pulling on a particular day gives them no impetus to go out with a rickshaw to earn more on the next day. Thus it appears that even to-day, these fisherfolk feel a great longing for fishing in the sea.

Besides their intra and inter-unit relations, their social interactions extend to some non-fishing castes of the vicinity due to the development of ceremonial kin ties. Such *ad hoc* relationship helps them to get both emotional and economic support when they are far off from their family life.

But in spite of all this co-operative and friendly spirit, it must be accepted that conflicts also are there in the fishing camps both on intra and inter-unit levels. These might be attributed to their high level of mental tension in a hazardous and physically strenuous profession. These disputes are often connected with the spheres which affect their basic economic interest, like inter-unit dispute over setting of nets. But these tensions are never carried to such an extent as to permanently jeopardise their friendly relations.

SUMMARY AND CONCLUSION

In the previous chapters, the life of the transient community of the fisherfolk in the fishing camps of Jambudwip has been described in detail, including the technology, economy, social system, supernaturalism, rituals, knowledge of the environment, and so on. All these have been dealt with in relation to a particular techno-economic task like marine fishing.

These fisherfolk originally came from various coastal districts of East Pakistan and settled down in different places in and around West Bengal. With their relatively superior traditional skill in marine fishing they have virtually dominated the trade in marine fish during the last decade.

It is seen that the temporary construction of the fishing camps, lay out and utilisation of space, the development of some conventional tenure system, both at the camping site and in the sea, are but necessary concomitants to the profession of the fisherfolk.

It is observed that the fishing profession is still almost entirely limited to various fishing castes. It is obvious that through hereditary and prolonged association with the occupation, the fisherfolk look upon fishing not only as a means of livelihood but also as a means of good life offering charm and thrill.

The fisherfolk are guided by the notion that their vocation has to be undertaken according to proper social and cultural norms. Proper respect and sentiment have to be shown to the fishing implements and to the relevant deities. The norms of co-operation, both within and between the two fishing units, have to be observed to sustain the community as a whole.

Some significant variations are observed between the two types of fishing units, viz., the shared and the salaried. The shared units operate as cohesive social units sharing common sentiments, whereas the salaried ones are more contractual in character operating strictly under the authoritative supervision of the bahardar for maximising profit. Although, in both the units, there is a tendency to recruit the crew from among kin and neighbours of the bahardar, the shared units are relatively more kin-based and the recruitment is mainly from the locality or from neighbouring villages, so that the joint endeavour is not disturbed. It is, however, observed that it is somewhat difficult to organise a large fishing unit on share basis.

shared endeavour. So, in recent years, there is a tendency to switch over from shared to the salaried type.

It has been observed that the fisherfolk develop into a moral community with a congenial cultural atmosphere in their transient camp life away from the village. With extensive use of bhatiali and kirtan songs, observation of rituals and some other entertainments, life in the fishing camps becomes aesthetically vivid and morally meaningful.

Owing to their long association with such a profession, the fisherfolk have a wealth of conventional knowledge about the behaviour of the fish, the immediate environment and technical problems of fishing. Although many of the steps of their technological operations are laden with rituals and supernatural beliefs, what impresses one most is the amount of their technological rationality and inductive reasoning. Sometimes, when there is a conflict between the requirement of technology and ritual conventions, the fisherfolk are found to be flexible enough to adapt themselves to the technologically appropriate course. In some cases, when the fishermen are found to resist innovations, the reason has usually been based on rational thinking. For instance, the use of nylon thread in the case of *bindi jal* has not been accepted due to economic reason and technical difficulties. But the same nylon thread has been widely adopted in the case of gill net (*chandi jal*) by changing its white colour into black, which suits their concept of the beauty of the net. They, however, show a tendency to naturalise induced elements according to their own conventions. On the whole, one carries the impression that the fisherfolk of Jambudwip are willing to adopt innovations, if they are brought conveniently within their economic control and adapted to cultural conventions.

An outside observer on the life of the fishermen at Jambudwip will be repeatedly struck by the deep ideology and spirit of fatalism among them. Marine fishing as a profession carries an element of uncertainty not only in economic expectations but also in the matter of personal safety. The extent of uncertainty seems to be much greater in this profession than even in agriculture, food gathering in the forest, and in hunting. The livelihood of the fisherfolk largely depends on the vagaries of nature. They can never control the route of the movement of the shoal of fish. They may just anticipate the route through their past experience and may set the nets accordingly. But their judgement of the routes of the shoals of fish or different associated environmental conditions may not come true in many cases.

Under the situation, it is but natural for the fisherfolk to develop a temperament of gambling with fate. This temperament may best be represented in their own words:

"Jailar maja Paile Raja
Naile Fakir"

which means: It is the fisherfolk's fate! If we get (the catch), we will be kings. If we fail, we will be paupers.

The large amount of money that they invest paying a very high rate of interest (sometimes @ 144%) in such a risky profession bears testimony to their proneness for risk taking. The same attitude also seems to lead them to develop an adventurous spirit even at the risk of their lives.

They respond to their unpredictable luck in a haul with a spirit of abandon. After a good haul, or after returning from a challenge, it is observed on many occasions that they do spend money with very little restraint when they have sufficient money in hand. In their socio-ritual performances, for instance, in their annual *Ganga Puja*, they are found to spend money lavishly. Offering a feast to the neighbouring unit members is a common feature.

Looking into their economic condition, it is apparent that just as the landless labourer and the poor cultivators are exploited by the mahajans, financiers and jotdars, in the field of fishing the landless salaried fishermen is also exploited, first by the *bahardars* belonging to the fishing castes and then more comprehensively by the mahajans and financiers. In case of agriculture, the villagers between 70% and 80% in West Bengal usually have some land and possess the primary means of production. But the fate of the fisherfolk is more deplorable. Only about 7% (17 : 243) of the total producing fishermen of Jambudwip own their means of production. The situation is even worse in Bakkhali where the ratio is 17:550 i.e., about 3% of the population have their means of production. This deplorable fate of the marine fisherfolk appears to be due to two major factors which are concomitant to each other, viz.,

- (i) marine fishing requires an investment of a huge capital both to run the business and to prepare the gears which the fishermen do not possess;
- (ii) as such they have to take the major portion of the money, they require, from the financiers as *dadans* and the rest of the amount are secured from different sources on high rates of compound interest varying from 25% to 144%. Thus they have to operate under the stranglehold of the *dadandars*.

It is, therefore, apparent that in order to improve their lot, the fisherfolk will have to be taken out from the stranglehold of the dadandars. Any petty financial assistance to purchase a fishing boat or such other things could hardly save the situation. The huge running cost of a fishing unit for the whole fishing season will have to be kept in view. Otherwise, there will be every possibility of losing their fishing gears to the larger financiers as many of the petty land holders have lost their land to the jotdars in course of time.

So far as the fishing operations in Frasergunj and its neighbouring islands of Jambudwip and Bakkhali are concerned, the service of the Directorate of Fisheries, West Bengal, may be profitably utilised. It has already a centre at Frasergunj. At present, it is functioning somewhat like a middle man—purchasing the collection from the producers and selling it in the Calcutta market. But what is expected is that there should be an initiative to organise a Fishermen's Co-operative Society and the energetic and experienced bahardars get financial assistance in time for the necessary arrangements of their fishing operation. They may be required to supply their catch at the market price to the Society or to the Directorate. There will, then, be no risk to realise the amount so advanced. At first, it may be started on an experimental basis before launching upon a producing centre with investment of a huge sum of money.

Leaving aside the question of the basic problems and suggested remedies in following such a hazardous techno-economic pursuit, the analysis of the data on the Marine Fisherfolk of Jambudwip dealt with in the foregoing chapters, brings into relief the following salient features:

- (i) Certain castes have specialised in marine fishing by long standing experience and the occupation is virtually restricted to these castes.
- (ii) The marine fisherfolk recruited from diverse villages and families organise themselves for a common pursuit.
- (iii) A transient community of persons living away from the family have developed a moral order in order to sustain the transient group of male fisherfolk as a cohesive social group.
- (iv) In order to cope with a very difficult technological task, the fisherfolk have developed an elaborate cultural inventory of rational technological knowledge.
- (v) In order to cover the risk of great uncertainty in catch and the danger of environment, the fisherfolk seek systematic support from supernatural beliefs, and have

developed a certain degree of fatalism in their world-view.

- (vi) The great uncertainty of the catch lead the fisherfolk to develop a spirit of gambling towards their profession.
- (vii) In general, the primary producers in this occupation, the fish catchers, usually do not own their means of production and do not have the capital to run their trade. They are firmly under the stranglehold of a chain of financiers not directly involved in the hauling of fish.

With these brief observations the report is placed before the academicians and the planners as well. If any part of it can fruitfully be utilised by any of them, the attempt in delineating the life and culture of the people who strain their muscles in such a hazardous occupation like marine fishing will be a success.

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APPENDIX A

OFF SEASON OCCUPATION

It has been noted earlier that the members of the fishing units are recruited for about four months, either on share or on salary basis, and after the fishing season, they all return to their respective villages in peasant or semi-urban set up. Those who are from Bihar and Orissa own about 3.25 *bighas* of land per family; while those who are from Bengal are practically landless, except for about 3 *kathas* of land for their homestead.

Under the situation, seasonal marine fishing alone is not sufficient for their subsistence for the whole year. So, in their village set up, they have found various types of 'non-caste' occupations like rickshaw-pullings, and others, to which they have adapted themselves to supplement their income as will be evident from Table 1. Those who own some land (as in Bihar) have, no doubt, taken to cultivation. Further, it is also observed that when the fishing caste takes resort to other 'non-caste' occupations, they cannot get entry into the intricate and complex pattern of traditional callings of the fishing castes.

Table 1. Off Season Occupation of the Unit Members

Sl. No.	Types of occupation	BIHAR									
		Dt. Champaran					P.S. Matihar village				
		P.S. Jogapati village					Sanirchar Huthi				
		Harpur	1	2	3	4	5	6	7	8	
1.	Agriculture	6	1	—	—	13	2	16	—	1	
2.	Agriculture, rickshaw pulling	2	—	—	—	3	3	—	1	—	
3.	Agriculture, rickshaw pulling, labour	—	—	—	—	1	—	1	—	—	
4.	Agriculture, fishing	—	—	—	—	—	—	2	—	—	
5.	No other occupation	1	—	—	—	3	—	2	—	—	
6.	Agriculture, hotel service	—	—	—	—	1	—	—	—	—	
7.	Hotel service	—	—	—	—	1	1	—	—	—	
8.	Labour	—	—	—	—	—	—	—	—	—	
9.	Labour, agriculture	1	2	—	1	—	—	—	—	—	

Table 1—Contd.

Report	1	2	3	4	5	6	7	8
Service, mason	—	—	—	—	—	—	—	—
Agriculture, mason, labour	—	—	—	—	—	—	—	—
Agriculture, contractor	—	—	—	—	—	—	—	—
Rickshaw pulling, labour	—	—	—	—	—	—	—	—
Rickshaw pulling, fish trade	—	—	—	—	—	—	—	—
Labour, fish trade, fishing	—	—	—	—	—	—	—	—
Fishing	—	—	—	—	—	—	—	—
Rickshaw pulling, kirtan singing	—	—	—	—	—	—	—	—
Rickshaw pulling	—	—	—	—	—	—	—	—
Rickshaw pulling, agriculture, hut making	—	—	—	1	—	—	—	—
Cow boy	—	—	—	1	—	1	1	—
Agriculture, bullock cart driving	—	1	—	—	—	1	—	—
Agriculture, bidi making	—	—	—	—	—	—	—	1
Agriculture, weaving	—	—	—	1	—	—	—	—

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THE MOON AND NET

Table 1—Contd.

	1	2	3	4	5	6	7	8
Labour, fishing, well digging	—	—	—	—	—	—	—	—
Rickshaw pulling, fishing	—	—	—	—	—	—	—	—
Mason labour	—	—	—	—	—	—	—	—
Labour, business	—	—	—	—	—	—	—	—
Labour, hut construction	—	—	—	—	—	—	—	—
Rickshaw pulling, mason, fishing	—	—	—	—	—	—	—	—
Fishing, labour	—	—	—	—	—	—	—	—
Rickshaw pulling, fishing, service	—	—	—	—	—	—	—	—
Labour, mason labour	—	—	—	—	—	—	—	—
Vegetable merchant	—	—	—	—	—	—	—	—
Weaving, mill labour	—	—	—	—	—	—	—	—
Hawking in train	—	—	—	—	—	—	—	—
Rickshaw pulling, fishing, labour	—	—	—	—	—	—	—	—
Phumbing, labour	—	—	—	—	—	—	—	—
Total	10	4	1	25	8	31	2	2

APPENDIX A

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Table 1—Contd.

Sl. No.	Types of occupation	ORISSA	Dt. Burd- wan	WEST BENGAL						Dt. Howrah	
		Dt. Puri	P.S. Ketugram Village	P.S. Balagar Village	P.S. Bansbaria Village	P.S. Chinsura Village	P.S. Magra Village	P.S. Sankrail Village			
		P.S. Tungi Village									
		Basindapur	Sataskuthi- para	Badakachi	Guptipara	Keota Colony	Taltalaga	Baikunthapur	Basudevpur	Tribeni	Jhorhat
		9	10	11	12	13	14	15	16	17	18
1.	Agriculture	—	—	—	—	—	—	—	—	—	—
2.	Agriculture, rickshaw pulling	—	—	—	—	—	—	—	—	—	—
3.	Agriculture, rickshaw pulling, labour	—	—	—	—	—	—	—	—	—	—
4.	Agriculture, fishing	4	1	—	—	—	—	—	—	—	—
5.	No other occupation	1	—	1	—	—	—	2	3	—	—
6.	Agriculture, hotel service	—	—	—	—	—	—	—	—	—	—
7.	Hotel service	—	—	—	—	—	—	—	—	—	—
8.	Labour	1	—	1	1	—	—	5	5	—	—
9.	Labour, agriculture	1	—	—	—	—	—	—	—	—	—
10.	Service	—	—	—	—	—	—	—	—	—	—

Table 1—Contd.

	9	10	11	12	13	14	15	16	17	18
11. Agriculture, mason labour	—	—	—	—	—	—	—	—	—	—
12. Agriculture, contractor	—	—	—	—	—	—	—	—	—	—
13. Rickshaw pulling, labour	—	—	—	—	1	—	1	7	—	—
14. Rickshaw pulling, fish trade	—	—	—	—	—	—	1	—	—	—
15. Labour, fish trade, fishing	—	—	—	—	—	—	1	—	—	—
16. Fishing	—	—	—	—	—	—	3	2	—	—
17. Rickshaw pulling, kirtan singing	—	—	—	—	—	—	1	—	—	—
18. Rickshaw pulling	—	—	—	—	—	1	16	33	—	—
19. Rickshaw pulling, agriculture, hut making	—	—	—	—	—	—	—	—	—	—
20. Cow-bay	—	—	—	—	—	—	—	—	—	—
21. Agriculture, bullock cart driving	—	—	—	—	—	—	—	—	—	—
22. Agriculture, bidi making	8	10	11	13	13	14	12	10	11	18

Table 1—Contd.

	9	10	11	12	13	14	15	16	17	18
24. Labour, fishing, well digging	—	—	—	—	—	—	—	—	—	1
25. Rickshaw pulling, fishing	—	—	—	—	—	—	—	—	—	—
26. Mason labour	—	—	—	—	—	—	2	3	—	—
27. Labour, business	—	—	—	—	—	—	—	—	—	—
28. Labour, hut construction	—	—	—	—	—	—	—	—	—	—
29. Rickshaw pulling, mason, fishing	—	—	—	—	—	—	—	1	—	—
30. Fishing, labour	—	—	—	—	—	—	—	1	—	—
31. Rickshaw pulling, fishing, service	—	—	—	—	—	—	1	2	—	—
32. Labour, mason labour	—	—	—	—	—	—	—	1	—	—
33. Vegetable merchant	—	—	—	—	—	—	—	1	—	—
34. Weaving, mill labour	—	—	—	—	—	—	—	1	—	—
35. Hawking in train	—	—	—	—	—	—	1	1	—	—
36. Rickshaw pulling, fishing, labour	—	—	—	—	—	—	—	—	1	—
37. Plumbing, labour	—	—	—	—	—	—	—	—	—	—
Total	7	1	2	1	1	1	34	61	1	1

Table 1—Contd.

WEST BENGAL (Contd.)													
Sl. No.	Types of occupation	P.S. Hanskhali Village	Dt. Nadia P.S. Kalyani Village	P.S. Nakasipara Village	P.S. Bangaon Village	Dt. 24 Parganas P.S. Bishpur Village	P.S. Falta Village	P.S. Kakdwip Village					
		Govindapur	Hanskhali	Majerchar	Bethuadahari	Helencha	Bagermore	Kanchrapara	Lichutala	Sayadnagar	Falta	Amravati	Ballara
		19	20	21	22	23	24	25	26	27	28	29	30
1.	Agriculture	1	1	1	2	—	—	—	—	—	—	1	—
2.	Agriculture, rickshaw pulling	—	—	1	1	—	—	—	—	—	—	—	—
3.	Agriculture, rickshaw pulling, labour	—	—	—	—	—	—	—	—	—	—	—	—
4.	Agriculture, fishing	—	—	1	—	—	—	—	—	—	—	—	—
5.	No other occupation	—	—	6	—	—	—	—	—	—	—	—	1
6.	Agriculture, hotel service	—	—	—	—	—	—	—	—	—	—	—	—
7.	Hotel service	—	—	—	—	—	—	—	—	—	—	—	—
8.	Labour	—	—	—	—	—	—	—	—	—	—	—	—
		1	1	8	3	—	—	—	—	—	—	—	—

Table 1—Contd.

	19	20	21	22	23	24	25	26	27	28	29	30
11. Agriculture, mason labour	—	—	1	—	—	—	—	—	—	—	—	—
12. Agriculture, contractor	—	—	1	—	—	—	—	—	—	—	—	—
13. Rickshaw pulling, labour	—	—	5	2	—	—	—	—	—	—	—	—
14. Rickshaw pulling, fish trade	—	—	—	—	—	—	—	—	—	—	—	—
15. Labour, fish trade, fishing	—	—	—	—	—	—	—	—	—	—	—	—
16. Fishing	—	—	—	—	—	—	—	—	—	—	—	—
17. Rickshaw pulling, kirtan singing	—	—	—	—	—	—	—	—	—	—	—	—
18. Rickshaw pulling	—	—	4	—	—	2	—	1	1	—	—	—
19. Rickshaw pulling, agriculture, hut making	—	—	—	—	—	—	—	—	—	—	—	—
20. Cow boy	—	—	—	—	—	—	—	—	—	—	—	—
21. Agriculture, bullock cart driving	—	—	—	—	—	—	—	—	—	—	—	—
22. Agriculture, bidi making	—	—	—	—	—	—	—	—	—	—	—	—
23. Agriculture, weaving	—	—	—	—	—	—	—	—	—	—	—	—

Table 1—Contd.

	19	20	21	22	23	24	25	26	27	28	29	30
24. Labour, fishing, well digging	—	—	—	—	—	—	—	—	—	—	—	—
25. Rickshaw pulling, fishing	—	—	—	1	—	—	—	—	—	—	—	—
26. Mason labour	—	—	—	—	—	—	—	—	—	—	—	—
27. Labour, business	—	—	—	—	—	—	1	—	—	—	—	—
28. Labour, hut construction	—	—	—	—	—	—	—	—	—	1	—	—
29. Rickshaw pulling, mason, fishing	—	—	—	—	—	—	—	—	—	—	—	—
30. Fishing, labour	—	—	1	—	—	—	—	—	—	—	—	—
31. Rickshaw pulling, fishing, service	—	—	—	—	—	—	—	—	—	—	—	—
32. Labour, mason labour	—	—	—	—	—	—	—	—	—	—	—	—
33. Vegetable merchant	—	—	—	—	—	—	—	—	—	—	—	—
34. Weaving, mill labour	—	—	—	—	—	—	—	—	—	—	—	—
35. Hawking in train	—	—	—	—	—	—	—	—	—	—	—	—
36. Rickshaw pulling, fishing, labour	—	—	—	—	—	—	—	—	—	—	—	—
37. Plumbing, labour	—	—	1	—	—	—	—	—	—	—	—	—
Total	1	3	29	6	1	4	1	1	1	1	1	1

Table 1—Contd.

Sl. No.	Types of occupation	TOTAL			Grand Total
		Bihar	Orissa	West Bengal	
1.	Agriculture	39	—	6	45
2.	Agriculture, rickshaw pulling	9	—	2	11
3.	Agriculture, rickshaw pulling, labour	2	—	—	2
4.	Agriculture, fishing	2	4	2	8
5.	No other occupation	6	1	13	20
6.	Agriculture, hotel service	1	—	—	1
7.	Hotel service	2	—	—	2
8.	Labour	—	1	20	21
9.	Labour, agriculture	14	1	3	18
10.	Service	—	—	1	1
11.	Agriculture, mason labour	—	—	1	1
12.	Agriculture, contractor	—	—	1	1
13.	Rickshaw pulling, labour	—	—	16	16
14.	Rickshaw pulling, fish trade	—	—	1	1

Table 1—Contd.

Sl. No.	Types of occupation	TOTAL			Grand Total
		Bihar	Orissa	West Bengal	
15.	Labour, fish trade, fishing	—	—	1	1
16.	Fishing	—	—	5	5
17.	Rickshaw pulling, kirtan singing	—	—	1	1
18.	Rickshaw pulling	—	—	58	58
19.	Rickshaw pulling, agriculture, hut making	1	—	—	1
20.	Cow boy	3	—	—	3
21.	Agriculture, bullock cart driving	2	—	—	2
22.	Agriculture, bidi making	1	—	—	1
23.	Agriculture, weaving	1	—	—	1
24.	Labour, fishing, well digging	—	—	1	1
25.	Rickshaw pulling, fishing	—	—	1	1
26.	Mason labour	—	—	5	5

Table 1—Contd.

	TOTAL			Grand Total
	Bihar	Orissa	West Bengal	
27. Labour, business	—	—	1	1
28. Labour, hut construction	—	—	1	1
29. Rickshaw pulling, mason, fishing	—	—	1	1
30. Fishing, labour	—	—	2	2
31. Rickshaw pulling, fishing, service	—	—	3	3
32. Labour, mason labour	—	—	1	1
33. Vegetable merchant	—	—	1	1
34. Weaving, mill labour	—	—	1	1
35. Hawking in train	—	—	2	2
36. Rickshaw pulling, fishing, labour	—	—	1	1
37. Plumbing, labour	—	—	1	1
Total	83	7	153	243

APPENDIX B

LITERACY

The level of literacy among the unit members is extremely low. A large number of them are illiterate (60.5%) and whatever little education they have hardly exceeds the standard of class IV. Another point of note is that the proportion of illiteracy is more in the case of salaried units than in shared ones. One of the reasons might be that there are more opportunities for education available to the members of the shared units as they live in urban or semi-urban set-ups like Tribeni (Hooghly), Majharchar (Nadia), etc.

Table 1. *Level of Literacy among the Unit Members*

Level of education	Share based unit		Salary based unit		Total	
	No.	%	No.	%	No.	%
Illiterate	53	55.8	94	63.5	147	60.5
Class I	8	8.4	9	6.8	17	7.0
Class II	23	24.2	15	10.1	38	15.6
Class III	2	2.1	13	8.7	15	6.2
Class IV	5	5.3	8	5.4	13	5.3
Class V	1	1.1	2	1.3	3	1.2
Class VI	3	3.2	5	3.3	8	3.3
Class VII	—	—	2	1.3	2	0.8
Total	95	100.1	148	100.4	243	99.9

APPENDIX C

ADVANCE TO SHARE HOLDER'S FAMILY FOR ITS MAINTENANCE DURING FISHING SEASON (1967-68)

(Amount in Rupees)

Table 1. Unit No. X

Serial No. of Individual	22nd Aswin before leaving for fishing ground	8th Aghrayan	19th Aghrayan	4th Paus	10th Paus	Total	Remarks
1.	—	—	—	—	—	—	Bahardar So the account is not main- tained.
2.	60.00	—	20.00	60.00	—	140.00	
3.	80.00	67.00	—	80.00	20.00	247.00	
4.	80.00	—	10.00	—	20.00	110.00	
5.	—	—	—	—	—	—	Brother of bahardar live jointly. So the account is not maintained.
6.	60.00	—	—	—	—	60.00	
7.	80.00	20.00	40.00	50.00	—	190.00	
8.	60.00	30.00	—	—	—	90.00	
9.	80.00	30.00	10.00	57.14	—	177.14	
10.	10.00	10.00	5.00	20.00	—	45.00	
11.	50.00	50.00	5.00	—	—	105.00	
12.	25.00	—	—	—	—	25.00	
13.	10.00	20.00	5.00	20.00	—	55.00	
14.	70.00	15.00	10.00	50.00	—	145.00	
15.	85.00	10.00	10.00	50.00	—	155.00	
Total	750.00	252.00	115.00	387.14	40.00	1544.14	

Serial No. of Individual	Before departure	30th Kartik	10th Agrahayan (after 1st challan)	4th Paus (after 2nd challan)	From 1st and 2nd challan
1.	417.20	57.53	417.20	1057.69	81.00
2.	120.00	20.00	95.86	100.00	20.00
3.	120.00	10.00	30.00	40.00	15.00
4.	115.00	—	50.00	—	20.00
5.	140.00	20.00	20.00	40.00	—
6.	120.00	10.00	35.00	40.00	25.00
7.	120.00	—	35.00	40.00	20.00
8.	115.00	20.00	15.00	15.00	10.00
9.	80.00	—	30.00	—	—
10.	80.00	5.00	20.00	25.00	10.00
11.	80.00	5.00	10.00	20.00	—
12.	60.00	—	10.00	15.00	—
13.	140.00	20.00	40.00	48.00	35.00
14.	90.00	10.00	10.00	30.00	15.00
15.	120.00	10.00	30.00	30.00	20.00
16.	1937.20	187.53	848.06	1500.69	271.00
Total					

THE MOON AND NET

APPENDIX D
LOCAL SALE OF FRESH FISH
Table 1. Unit No. I

Date	Types of fish (weight in kg.)					
	Bhola	Chamne chingri	Kanta	Chela	Lal Chingri	Phesa
14th Kartik	—	—	—	—	2.700	12.500
28th Kartik	—	—	—	—	—	9.900
30th Kartik	—	—	—	—	6.500	16.200
1st Agrahayan	—	—	—	4.500	1.500	4.500
4th Agrahayan	—	—	—	—	—	9.900
5th Agrahayan	—	—	—	—	—	10.800
17th Agrahayan	14.400	—	2.700	—	4.500	10.800
18th Agrahayan	—	—	1.800	—	5.400	2.000
19th Agrahayan	4.500	—	1.000	—	4.500	1.000
20th Agrahayan	8.000	—	—	—	—	0.500
2nd Paus	—	—	—	—	—	7.200
3rd Paus	—	—	—	—	—	12.200
4th Paus	—	—	30.000	—	—	5.400
7th Paus	—	—	—	0.500	0.800	1.800
8th Paus	1.600	1.300	—	0.800	—	1.700
9th Paus	—	—	—	1.500	—	1.000
18th Paus	—	—	16.000	—	—	—

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Table 2. Unit No. II

Date	Type of fish (weight in kg.)
	Lal Chingri
1st Paus	1.700
2nd Paus	3.500
3rd Paus	2.200
4th Paus	2.200

Table 3. Unit No. III

	Types of fish (weight in kg.)						
	Bhola	Kanta	Chela	Lal chingri	Phesa	Rangi chingri	Sapla pata
12th Kartik	5.000	—	—	—	—	—	—
13th Kartik	6.000	—	—	3.000	—	6.000	—
15th Kartik	10.500	—	—	4.500	5.000	10.000	7.500
27th Kartik	—	—	—	—	—	—	5.000
29th Kartik	—	—	—	1.000	—	—	27.000
18th Agrahayan	—	—	—	2.500	1.200	—	12.000
19th Agrahayan	1.700	—	—	2.000	—	—	1.000
20th Agrahayan	1.200	—	—	3.000	1.000	—	2.200
27th Agrahayan	4.500	—	—	2.700	—	—	—
28th Agrahayan	9.500	—	1.800	2.700	—	—	—
29th Agrahayan	—	—	—	6.500	—	—	5.500
1st Paus	10.000	—	2.700	3.000	—	—	2.500
3rd Paus	6.300	—	—	1.500	—	—	3.600
4th Paus	3.500	—	—	1.000	—	—	2.500
6th Paus	14.400	—	—	—	—	—	—
15th Paus	—	—	—	—	—	—	5.400
16th Paus	—	—	—	1.800	—	—	4.500
17th Paus	2.200	—	—	1.200	—	—	1.500
19th Paus	—	10.400	—	0.500	—	—	5.500
20th Paus	8.000	31.500	—	—	—	—	21.500
22nd Paus	2.000	—	7.700	—	—	—	3.200

Table 4. Unit No. IV

	Types of fish (weight in kg.)									
Date	Bais	Bhola	Chamne chingri	Kanta	Chela	Lal chingri	Pamplet	Phesa	Rangi chingri	Sapla pata
18th Kartik	—	2.700	—	—	—	—	—	—	—	3.100
21st Kartik	—	—	—	—	—	2.000	—	20.000	15.000	—
22nd Kartik	—	—	—	—	—	3.000	—	—	—	6.300
26th Kartik	—	—	—	—	—	6.500	—	—	—	13.200
27th Kartik	—	—	—	—	—	6.000	6.000	—	—	9.800
28th Kartik	—	—	2.600	—	1.800	4.000	—	—	—	1.500
29th Kartik	—	—	—	—	—	—	—	—	—	9.700
30th Kartik	—	—	—	—	—	—	—	—	—	9.500
3rd Agrahayan	8.500	—	—	—	—	4.500	—	5.400	—	8.500
4th Agrahayan	—	—	—	—	—	—	—	11.800	13.000	—
5th Agrahayan	—	—	—	—	—	4.500	—	6.700	—	6.700
6th Agrahayan	—	—	—	—	—	3.500	—	—	—	7.100
10th Agrahayan	—	9.900	—	—	—	—	—	—	—	—
11th Agrahayan	—	—	—	—	—	8.900	—	—	—	1.000
17th Agrahayan	—	1.800	—	—	—	1.000	—	—	2.700	6.700
19th Agrahayan	—	—	—	5.200	—	—	—	—	—	11.200
20th Agrahayan	—	—	—	—	0.700	—	3.600	—	—	2.000

Table 4. Unit No. IV (Contd.)

	Types of fish (weight in kg.)									
Date	Bals	Bhola	Chamne chingri	Kanta	Chela	Lal chingri	Pamplet	Phesa	Rangi chingri	Sapla pata
23rd Agrahayan	—	—	4.500	—	—	—	—	—	—	2.200
25th Agrahayan	—	—	3.600	—	—	1.000	—	—	—	—
26th Agrahayan	—	1.000	—	—	5.400	2.000	—	—	—	3.600
27th Agrahayan	—	—	3.200	—	—	—	—	4.500	—	5.400
28th Agrhayan	—	—	5.900	—	3.200	—	—	—	—	6.300
29th Agrahayan	—	—	0.900	—	3.200	2.200	—	—	—	2.600
1st Paus	—	3.200	5.000	—	—	3.200	—	8.000	—	3.800
2nd Paus	—	—	3.500	—	77.000	—	—	—	—	8.400
3rd Paus	—	—	—	—	3.500	1.000	—	14.000	—	7.500
4th Paus	—	—	1.200	2.700	—	—	—	—	—	2.700
8th Paus	—	—	—	—	3.000	—	—	11.000	—	4.000
9th Paus	—	—	—	—	0.500	—	—	3.400	—	2.000
12th Paus	—	—	—	—	—	—	—	6.500	—	12.200
13th Paus	—	—	—	—	—	—	—	—	—	9.000
14th Paus	—	—	—	—	—	1.000	—	10.000	—	—
15th Paus	—	—	—	—	—	—	—	—	—	9.000
16th Paus	—	7.400	—	—	—	1.200	—	—	—	3.400
17th Paus	—	9.700	—	—	—	1.800	1.800	—	—	—
18th Paus	—	—	—	9.000	1.000	—	—	—	—	5.500
20th Paus	—	—	—	—	—	—	—	11.000	—	—
21st Paus	—	—	—	—	—	—	—	—	—	3.000
22nd Paus	—	—	—	40.000	—	0.800	—	8.000	—	—

Table 5. Unit No. V.

Date	Types of fish (weight in kg.)						
	Bhola	Chamne chingri	Kanta	Chela	Lal chingri	Phesa	Sapla pata
29th Kartik	—	5.400	—	0.900	—	—	19.800
30th Kartik	—	—	—	—	—	—	11.700
1st Agrahayan	—	—	—	0.500	—	—	1.600
2nd Agrahayan	7.200	—	—	—	—	1.800	5.000
3rd Agrahayan	—	—	—	—	—	—	2.700
17th Agrahayan	21.000	—	—	—	1.000	9.000	5.400
18th Agrahayan	8.000	—	—	0.800	0.800	—	1.300
28th Agrahayan	—	—	44.000	0.800	3.100	3.100	—
29th Agrahayan	—	2.300	—	1.000	2.300	1.300	10.000
1st Paus	3.000	1.700	—	—	1.500	1.000	—
2nd Paus	—	—	—	—	1.000	—	6.300
4th Paus	—	—	—	—	3.100	—	6.700
14th Paus	—	—	—	—	0.500	—	12.600
15th Paus	—	—	1.300	—	0.500	—	5.800
17th Paus	4.500	—	—	—	1.000	5.400	8.400
18th Paus	12.500	—	1.000	—	1.000	2.700	8.000
19th Paus	5.400	—	—	—	—	—	3.000
21st Paus	—	—	—	0.400	0.900	—	2.200

Table 6. Unit No. VI

Date	Types of fish (weight in kg.)					
	Bhola	Chamne chingri	Kanta	Chela	Lal chingri	Phesa
28th Kartik	—	5.800	—	—	1.800	—
10th Agrahayan	4.000	1.300	—	—	1.800	—
11th Agrahayan	6.700	1.300	—	—	2.000	—
19th Agrahayan	—	—	36.000	—	—	—
25th Agrahayan	—	—	—	—	0.400	5.500
26th Agrahayan	1.000	5.000	—	—	3.000	—
27th Agrahayan	10.000	—	—	2.700	2.300	—
28th Agrahayan	16.200	4.500	—	—	4.500	—
29th Agrahayan	18.800	—	—	3.500	5.200	—
1st Paus	—	—	—	—	2.200	—
2nd Paus	4.100	—	21.600	—	1.800	—
19th Paus	—	—	5.400	—	—	—

TABLE 6. UNIT NO. VI

Table 7. Unit No. VII

Date	Types of fish (weight in kg.)							
	Bhola	Chamne chingri	Kanta	Chela	Chingri	Lal chingri	Phesa	Rangi chingri
18th Kartik	—	—	—	—	—	—	—	7.700
26th Kartik	—	—	—	—	4.500	4.000	—	1.300
27th Kartik	—	4.400	—	6.300	—	7.200	—	—
30th Kartik	—	—	—	—	—	—	—	—
5th Agrahayan	—	—	35.000	—	—	—	2.700	15.300
10th Agrahayan	7.500	—	3.600	—	—	3.200	—	—
19th Agrahayan	6.300	—	11.700	—	—	4.300	—	9.300
20th Agrahayan	4.000	—	—	—	—	3.600	—	0.500
27th Agrahayan	2.700	—	—	—	—	1.300	—	—
29th Agrahayan	18.000	—	—	—	—	4.500	—	—
1st Paus	—	—	—	—	—	4.500	—	26.000
2nd Paus	—	—	6.700	—	—	5.400	—	18.600
3rd Paus	33.000	—	—	—	—	1.300	—	7.100
4th Paus	—	—	—	—	—	2.200	—	5.400
14th Paus	—	—	0.800	—	—	2.200	—	23.000
15th Paus	—	—	—	—	—	—	—	23.400
16th Paus	—	—	—	—	—	—	—	12.600
18th Paus	20.000	—	—	—	—	1.000	—	9.000
19th Paus	—	—	2.500	—	—	1.000	—	9.300
20th Paus	4.500	—	—	—	—	2.200	—	2.700

TABLE 7. UNIT NO. VII

Table 8. Unit No. IX

Date	Types of fish (weight in kg.)											
	Bais	Bhola	Channa chingri	Kanta	Chela	Chingri	Lal chingri	Magrel	Pamplet	Phesa	Rangi chingri	Sapta peta
12th Kartik	—	—	—	—	—	—	4.000	—	—	—	6.000	3.000
14th Kartik	—	22.500	—	—	—	—	3.200	—	—	—	—	2.500
15th Kartik	—	—	—	—	—	—	—	—	—	—	—	3.600
26th Kartik	—	—	—	—	—	9.600	—	2.400	—	—	—	22.000
27th Kartik	—	—	—	—	3.200	5.000	4.000	—	—	—	—	—
28th Kartik	—	—	—	—	—	—	—	—	—	—	—	9.600
1st Agrahayan	—	—	—	—	—	—	—	—	—	17.000	—	3.800
2nd Agrahayan	—	—	—	—	2.200	—	2.200	—	—	—	—	2.700
3rd Agrahayan	—	5.000	1.800	—	0.500	—	8.400	—	—	7.100	—	—
5th Agrahayan	—	10.000	—	—	5.000	1.800	5.400	—	—	—	—	1.800
10th Agrahayan	—	—	—	—	—	2.000	1.000	—	—	—	—	3.600
17th Agrahayan	—	6.000	—	—	—	—	7.100	—	—	22.800	6.300	6.600
20th Agrahayan	—	—	—	—	—	—	1.200	—	—	—	—	2.000
25th Agrahayan	—	—	—	—	2.000	3.500	—	—	—	24.800	—	—
28th Agrahayan	—	8.000	—	—	4.100	—	5.000	—	—	—	—	—
30th Agrahayan	—	8.300	—	—	4.100	—	—	—	—	—	—	—
									7.700	5.000	12.300	

1st Paus	—	3.700	—	—	4.100	—	2.600	—	0.500	—	—	6.400
2nd Paus	—	4.000	—	—	—	—	2.300	—	—	—	—	1.000
5th Paus	—	—	—	3.500	—	—	—	—	—	—	—	—
7th Paus	5.400	—	—	—	1.500	—	—	—	—	—	—	5.700
8th Paus	—	—	—	10.500	0.900	—	1.800	—	—	—	—	—
12th Paus	—	—	—	—	—	—	1.200	—	—	—	11.700	6.000
13th Paus	—	—	—	—	—	—	—	—	—	—	—	4.500
14th Paus	—	—	—	—	—	1.000	2.200	—	—	—	—	1.000
21st Paus	—	—	—	—	—	—	—	—	—	—	—	6.500
22nd Paus	—	7.000	—	—	4.000	—	—	—	—	—	—	—

Date

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Table 9. Unit No. X

Date	Types of fish (weight in kg.)								
	Bhola	Kanta	Chela	Chingri	Lal chingri	Pamplet	Phesa	Rangi chingri	Sapla pata
12th Kartik	—	—	1.500	—	3.500	—	9.000	12.000	—
18th Kartik	—	6.300	—	—	—	—	—	—	7.200
23rd Kartik	—	—	—	—	—	—	—	20.000	—
24th Kartik	—	—	—	10.000	—	—	—	—	2.500
26th Kartik	—	—	—	—	2.000	1.800	3.400	—	15.400
27th Kartik	—	—	3.200	—	—	2.200	4.500	—	9.600
3rd Agrahayan	—	—	—	—	—	—	7.700	—	—
4th Agrahayan	—	—	—	—	—	—	—	10.000	9.000
5th Agrahayan	—	—	—	—	—	—	—	—	9.000
6th Agrahayan	3.700	—	—	—	3.000	—	9.900	—	3.600
11th Agrahayan	1.200	—	0.900	—	4.300	0.900	—	—	2.700
17th Agrahayan	8.000	—	—	—	1.300	—	6.000	—	—
20th Agrahayan	—	—	—	—	1.500	—	—	—	—
25th Agrahayan	—	—	1.300	—	3.500	—	7.200	—	—
27th Agrahayan	—	12.200	—	—	—	3.000	—	—	—
28th Agrahayan	5.000	—	—	—	1.200	—	—	—	—

29th Agrahayan	10.000	—	0.500	—	2.300	—	—	—	6.500
1st Paus	—	—	—	—	3.100	—	—	—	—
5th Paus	—	—	—	—	—	—	—	—	7.500
7th Paus	10.000	—	—	—	1.000	—	5.400	—	—
8th Paus	—	—	2.300	—	1.000	—	5.400	—	2.700
12th Paus	—	—	—	—	—	—	—	—	3.200
13th Paus	—	—	—	—	—	—	—	—	7.200
14th Paus	—	—	—	—	2.200	—	—	—	7.000
15th Paus	—	—	—	—	1.000	—	—	—	3.600
16th Paus	—	—	—	—	—	—	—	2.200	3.600
17th Paus	4.500	—	—	—	1.800	—	—	7.200	—
18th Paus	8.200	—	—	—	—	—	—	—	—

Date

Types of fish (weight in kg.)

Bhola Kanta Chela Chingri Lal chingri Pamplet Phesa Rangi chingri Sapla pata

(Total of fish caught in kg.)

Table 10. Unit No. XIV

Date	Types of fish (weight in kg.)							
	Bhola	Chamne chingri	Kanta	Chela	Lal chingri	Phesa	Rangi chingri	Sapla pata
12th Kartik	—	—	—	1.000	9.000	—	—	—
13th Kartik	—	—	—	—	2.000	—	—	—
14th Kartik	—	—	—	—	—	—	5.400	—
22nd Kartik	—	—	—	—	—	—	1.800	—
23rd Kartik	—	—	—	1.000	—	—	17.000	2.700
24th Kartik	—	—	—	—	—	—	7.200	5.000
26th Kartik	—	—	—	—	—	—	—	21.000
27th Kartik	—	—	8.500	3.000	—	—	—	14.000
28th Kartik	—	—	—	8.500	—	—	—	5.000
2nd Agrahayan	—	—	—	—	5.400	—	—	—
3rd Agrahayan	—	—	—	1.000	1.000	22.000	—	—
4th Agrahayan	—	—	—	—	3.000	5.400	—	—
5th Agrahayan	—	—	—	—	5.400	—	—	—
6th Agrahayan	—	—	—	1.000	3.000	5.200	—	8.100
17th Agrahayan	8.800	—	—	—	3.000	—	—	—
18th Agrahayan	4.300	—	—	—	3.400	2.300	—	1.000

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1st Paus	—	—	—	—	—	—	—	—
2nd Paus	5.400	—	—	—	2.700	—	—	—
3rd Paus	6.900	2.200	—	—	4.000	—	—	—
4th Paus	—	—	—	3.600	9.700	—	—	1.800
12th Paus	—	—	—	6.000	0.500	—	—	0.500
13th Paus	7.700	—	—	3.200	2.000	—	—	—
14th Paus	1.700	—	—	—	4.500	—	—	9.000
15th Paus	6.700	—	—	2.200	1.000	—	—	—
16th Paus	—	—	2.000	—	1.200	—	8.700	3.700
17th Paus	4.000	—	1.800	—	2.200	—	—	—
18th Paus	—	—	—	—	—	—	—	3.600
19th Paus	8.200	—	2.200	—	2.500	—	—	7.400
20th Paus	3.400	—	—	—	2.700	—	—	8.000
21st Paus	10.200	—	—	—	1.000	—	—	11.000
22nd Paus	3.300	—	—	—	—	—	—	7.200
23rd Paus	8.000	—	—	—	—	—	—	2.500
24th Paus	—	—	10.000	—	—	—	—	—

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Table 11. Unit No. XV

Date	Types of fish (weight in kg.)			
	Bhola	Chela	Lal chingri	Sapla pata
3rd Paus	—	0.800	1.200	2.200
4th Paus	—	0.500	1.300	1.700
7th Paus	—	—	1.000	1.300
8th Paus	2.200	—	1.000	—
14th Paus	—	—	0.500	6.800

Table 12. Unit No. XVI

Date	Types of fish (weight in kg.)					
	Bhola	Chela	Lal chingri	Phesa	Rangi chingri	Sapla pata
12th Kartik	—	4.000	2.000	9.000	25.000	—
13th Kartik	—	0.500	2.000	11.800	20.500	5.000
14th Kartik	—	—	2.000	—	—	—
18th Kartik	7.700	—	0.900	6.800	—	0.900
4th Agrahayan	—	—	2.700	11.700	—	—
5th Agrahayan	—	—	2.700	3.600	—	—

6th Agrahayan	1.800	—	—	6.300	—	—
11th Agrahayan	—	—	—	—	14.000	—
17th Agrahayan	—	—	5.900	6.700	—	3.600
18th Agrahayan	1.800	—	0.500	5.000	—	2.000
19th Agrahayan	1.000	—	1.000	5.000	—	—
20th Agrahayan	—	—	1.300	—	—	—
26th Agrahayan	—	2.700	1.000	—	—	—
27th Agrahayan	—	3.000	1.800	—	—	—
28th Agrahayan	6.000	2.800	3.100	—	—	—
3rd Paus	3.600	—	1.000	8.000	—	—
3rd Paus	—	—	1.500	5.000	—	—
10th Paus	—	—	2.000	5.000	4.500	—
10th Paus	—	—	1.800	—	6.300	—
10th Kartik	—	—	—	—	—	—

Date

Bhola

Chela

Lal chingri

Phesa

Rangi chingri

Sapla pata

Table 13. Unit No. XVII

Date	Types of fish (weight in kg.)						
	Bhola	Kanta	Chela	Lal chingri	Phesa	Rangi chingri	Sapla pata
12th Kartik	—	—	—	3.000	—	21.000	7.000
13th Kartik	—	—	—	7.200	9.000	15.000	2.000
18th Kartik	—	—	—	3.000	—	18.000	1.200
27th Kartik	—	—	7.200	—	—	—	4.900
28th Kartik	—	—	10.700	—	—	—	6.500
29th Kartik	—	—	4.700	1.300	—	—	4.500
30th Kartik	—	—	5.000	4.500	—	—	2.700
1st Agrahayan	8.100	—	0.500	2.700	—	—	5.800
3rd Agrahayan	—	—	1.500	1.000	7.200	—	3.000
4th Agrahayan	3.500	—	2.700	1.500	—	—	6.700
11th Agrahayan	—	—	—	—	—	—	7.700
17th Agrahayan	5.400	—	—	—	4.500	4.000	—
18th Agrahayan	1.800	—	—	2.800	5.400	—	—
19th Agrahayan	—	—	—	2.000	—	—	4.500
20th Agrahayan	—	—	—	1.400	—	—	—
24th Agrahayan	—	—	—	—	14.000	7.200	—

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25th Agrahayan	—	—	—	0.800	3.500	11.000	—
27th Agrahayan	—	—	1.000	3.200	—	—	—
28th Agrahayan	—	—	1.800	4.500	—	—	4.000
29th Agrahayan	—	—	2.000	2.500	—	—	1.000
1st Paus	—	—	3.100	1.000	—	11.000	1.800
2nd Paus	2.700	—	—	2.500	—	—	2.200
3rd Paus	0.900	—	—	2.500	—	—	1.800
4th Paus	2.200	—	—	4.000	—	—	4.500
5th Paus	—	—	2.000	—	—	—	—
6th Paus	—	13.500	—	2.700	—	—	—
12th Paus	—	—	—	—	—	—	7.500
13th Paus	—	—	—	—	—	—	0.600
14th Paus	19.000	—	—	1.000	—	—	—

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Table 14. Unit No. XIX

Date	Types of fish (weight in kg)						
	Bais	Channe	Kanta	Chingri	Lal	Phesa	Rangl
		chingri			chingri		chingri
20th Kartik				16.200			21.600
4th Agrahayan						20.000	
11th Agrahayan						5.400	4.500
18th Agrahayan						8.000	
26th Agrahayan					2.000	8.000	
28th Agrahayan						7.200	16.600
29th Agrahayan							4.500
5th Pous		2.300			2.000		7.700
8th Pous	3.000		7.200				20.000
					1.000		4.500
							3.000

APPENDIX E

Sale of Meja
Table 1.

Unit No.	Date	Weight (in kg)	Amount (in Rs.)
A) Bahardar			
I	23.11.67	150.00	18.75
II	5.2.67	90.00	15.75
III	23.11.67	155.00	19.37
III	5.2.67	95.00	16.00
IV	23.11.67	160.00	20.00
IV	5.2.67	195.00	34.00
V	5.2.67	21.00	13.12
VI	5.2.67	89.00	17.50
VII	5.2.67	100.00	17.50
X	24.11.67	60.00	7.50
XV	23.11.67	140.00	17.50
XV	5.2.67	20.00	3.50
XVI	23.11.67	160.00	20.00
XVI	24.11.67	30.00	14.75
XVI	5.2.67	95.00	16.00
XVII	24.11.67	155.00	19.37
XVII	5.2.67	150.00	26.25
XVIII	23.11.67	145.00	18.12
XVIII	24.11.67	90.00	11.25
Total		2110.00	330.23
B) Professional sorter			
XI	5.2.67	200.00	52.50
XIII	5.2.67	200.00	52.50
XIX	5.2.67	200.00	52.50
Total		600.00	157.50

N.B. Meja is a mixture of mixed fish and is sold at a rate of Rs. 1.50 per kg. (A)

APPENDIX F

Estimate of the present value of articles used in fishing camp (1967-68)

Table 1. Unit No. VII

A) Articles carried over from the previous season

Serial No.	Article	Quantity	Approx. value (in Rs.)
1.	Net	5	4000
2.	Gaber danga (container to store preservative for the net)	2	200
3.	Wire rope		200
4.	Kachhi (strong rope)		300
5.	Bio (wooden hammer)	1	100
6.	Day light	1	50
7.	Jaler chhola (lower part of the net)	5	100
8.	Wooden box, cooking utensil, lantern, etc.		100
9.	Bamboo, fish drying platform, fish carrying basket, hogla, bamboo mat, etc.		300
10.	Dao	6	18
11.	Chhemi	2	2
12.	Chisel	2	3
13.	Axe	2	14
14.	Drum	2	7
	Total		5394

B) New articles

Serial No.	Article	Quantity	Approx. value (in Rs.)
15.	Net	2	1900
16.	Drum for boiling preservative for the net	2	28
17.	Balcha (shovel)	1	6
18.	Drum for storing drinking water	4	16
19.	Bucket	1	4
20.	Lantern	2	11
21.	Fish carrying basket	5	15
22.	Bamboo mat	11	22
23.	Tarpaulin	2	48
24.	Hogla (water twig mat used to thatch the temporary camp)		60
25.	Aluminium pot (used as cooking utensil)	2	20
26.	Karai (used as cooking utensil)	2	10
	Total		2140

A) Total value of articles from the previous season Rs. 5394.00

B) Total value of new articles Rs. 2140.00

Grand Total Rs. 7534.00

APPENDIX G

Main heads of expenditure for the fishing season (1967-68)

Table 1. Unit No. IV

24th Aswin	
Ration, bamboo, wooden post, etc. at Uluberia	Rs. 300.00
27th Aswin	
Marketing	Rs. 100.00
Wooden post	Rs. 100.00
Bamboo	Rs. 100.00
Marketing at Diamond Harbour	Rs. 100.00
Marketing at Kakdwip	Rs. 100.00
Total	Rs. 700.00

(Cost including that for food on the way from the natal village to Jambudwip).

Weekly market (for four months @ Rs. 180.00 per month)	Rs. 720.00
Rice (for four months @ 12 md. per month)	Rs. 480.00
Net repairing	Rs. 100.00
Salary of crewmen	Rs. 450.00
Total	Rs. 1750.00

Table 2. Unit No. VII

Net Accessories	
Preservatives	
Ordinary bamboo (for goja and tana)	Rs. 225.00
Special bamboo (for phang)	Rs. 50.00
Wooden post	Rs. 210.00
Wire rope	Rs. 235.00
Jute	Rs. 75.00
Thread for net mending (8 kg.)	Rs. 36.00
Coconut fibre rope (17 kg.)	Rs. 45.00
Ordinary thread (3 kg.)	Rs. 7.50
Gab (7 md.)	Rs. 70.00
Total	Rs. 953.50
Other Items	
Kerosene oil for camp use	Rs. 101.50
Boat rent	Rs. 330.00
Total	Rs. 431.50
Food stuff, spices, etc.	
Rice—Kartik-Agrahayan (26 mds.)	Rs. 2670.25
10th Paus-25th Paus (19 mds. 4 kg.)	Rs. 686.00
13th Magh-22nd Magh (3 mds. 10 kg.)	Rs. 234.50
Till the closing of the fishing season (5 mds.)	Rs. 350.00
Chilli (25 kg.) @ Rs. 3.50 per kg.	Rs. 87.50
Salt (1½ md.)	Rs. 15.00
Mustard oil (8 kg.) @ Rs. 6.00 per kg.	Rs. 48.00
Turmeric (5 kg.) @ Rs. 3.00 per kg.	Rs. 15.00
Other spices (6 kg.) @ Rs. 7.00 per kg.	Rs. 42.00
Tobacco (2½ md.) @ Rs. 60.00 per md.	Rs. 150.00
Miscellaneous	Rs. 300.00
Total	Rs. 4598.25
Salary of crewmen	Rs. 3680.00

Table 3. Unit No. X (upto first challan)

19th Bhadra: Advance for two boats	Rs. 55.00
16th Aswin:	
Boat repairing (to be borne by the owner of the boat)	Rs. 14.00
Coal tar	Rs. 14.00
Nail	Rs. 14.00
Wood	Rs. 14.00
Carpenter	Rs. 14.00
Handle of the oars	Rs. 14.00
22nd Aswin:	
Bombans (lighter variety of bamboo)	Rs. 14.00
Wire rope for net (10)	Rs. 14.00
Kachhi (strong rope)	Rs. 14.00
Coconut fibre rope (6 kg.)	Rs. 14.00
Hogle (1)	Rs. 14.00
Advance for gojar bans (a type of bamboo) and travelling cost	Rs. 14.00
Sail for the boat	Rs. 14.00
Jute	Rs. 14.00
Narayan puja	Rs. 14.00
25th Aswin:	
Jute (1 md.)	Rs. 14.00
Drum (3)	Rs. 14.00
Rice (1 md.)	Rs. 14.00
Dao and shovel	Rs. 14.00
Repairing of day light	Rs. 14.00
Chatai (bamboo mat) (1)	Rs. 14.00
Chisel	Rs. 14.00
Advance to shareholders (before departure on 22nd Aswin, except bahardar and his brother)	Rs. 750.00
Travelling expense of bahardar	Rs. 100.00
Camp expenses (from 22nd Aswin to 1st Challan on 6th Agrahayan)	Rs. 600.00
Total	Rs. 2404.37

APPENDIX H

Sale account (1967-68)

Table 1. Unit No. IV (First Challan)

Sl. Types of No. fish	Jama (Credit)		Kharach (Debit)	
	Weight	Value (in Rs.)		
1. Bomla	17 md. 30 kg.	Rs. 1603.12	Boat, porter etc.	Rs. 115.50
2. Tabra	12 md. 39 kg.	Rs. 1084.60	Thread and other articles	Rs. 301.00
3. Kekle	5 md. 20 kg.	Rs. 419.25	Cash taken	Rs. 1080.00
			Miscellaneous	Rs. 100.00
			Total	Rs. 1606.50
			Balance in hand	Rs. 1500.47
Total	36 md. 9 kg.	Rs. 3106.97		Rs. 3106.97

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Phuleswar
8th Agrahayan, 1374 (B.S.)

Table 2. Unit No. IV (Second Challan)

Sl. Types of No. fish	Jama (Credit)		Kharach (Debit)	
	Weight	Value (in Rs.)		
1. Bomla @ Rs. 98.00 (per md.)	25 md. 4 kg. 500 grm.	Rs. 2461.02	Boat fare for transport	Rs. 63.00
2. Tabra @ Rs. 90.00 (per md.)	6 md. 1 kg.	Rs. 564.75	Porter charge	Rs. 20.00
3. Kekle @ Rs. 85.00 (per md.)	6 md. 2 kg.	Rs. 514.25	Miscellaneous	Rs. 150.00
4. Chingri @ Rs. 75.00 (per md.)	5 md. 2 kg.	Rs. 378.75	Cash taken	Rs. 2080.00
			Total	Rs. 2233.00
			Balance in hand	Rs. 1685.77
Total	42 md. 9 kg. 500 grm.	Rs. 3918.77		Rs. 3918.77

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6.8.1374 (B.S.)
Phuleswar

APPENDIX H

Table 3. Unit No. VII (First Challan)

Sl. Types of No. fish	Jama (Credit)		Kharach (Debit)	
	Weight	Value (in Rs.)		
1. Bomla @ Rs. 95.00 (per md.)	24 md. 28 kg.	Rs. 2349.50	Cash taken	Rs. 2140.69
2. Kekle @ Rs. 82.00 (per md.)	6 md. 1 kg. 500 grm.	Rs. 495.15	Miscellaneous	Rs. 3.00
3. Tabra @ Rs. 87.00 (per md.)	9 md. 11 kg. 500 grm.	Rs. 803.66	Balance in hand	Rs. 1649.22
4. Chuno Mach (small fish) @ Rs. 48.00 (per md.)	3 md. 500 grm.	Rs. 144.60		
Total	43 md. 1 kg. 500 grm.	Rs. 3792.91		Rs. 3792.91

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Phuleswar
6.8.1374 (B.S.)

Table 4. Unit No. VII (Third Challan)*

Serial No.	Type of fish	Weight
1.	Tabra	3 md. 14 kg. 500 grm.
2.	Phesa	3 md. 34 kg. 500 grm.
3.	Kekia	3 md. 9 kg.
4.	Bomla	12 md. 12 kg. 500 grm.
5.	Sankar	30 kg.
Total		23 md. 20 kg. 500 grm.

Total price — Rs. 2100.00

*Details lacking.

Table 5. Unit No. VII (Fourth Challan)

Sl. No.	Types of fish	Weight	
1.	Bomla @ Rs. 108.00 (per md.)	14 md. 32 kg.	Rs. 1568.40
2.	Kekle @ Rs. 83.00 (per md.)	17 md. 20 kg.	Rs. 1432.50
3.	Tabra @ Rs. 99.00 (per md.)	17 md. 500 grm.	Rs. 1684.25
4.	Bhola @ Rs. 57.00 (per md.)	4 md	Rs. 228.00
5.	Rangi chingri @ Rs. 45.00 (per md.)	5 md. 28 kg.	Rs. 252.50
6.	Halud chingri @ Rs. 100.00 (per md.)	20 kg.	Rs. 50.00
7.	Chata chingri @ Rs. 20.00 (per md.)	32 kg.	Rs. 16.00
8.	Lal chingri @ Rs. 10.00 (per md.)	20 kg.	Rs. 5.00
Total		58 md. 12 kg. 500 grm.	Rs. 5286.65

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Phuleshwar
11.10.1374 (B.S.)

Table 6. Unit No. VII

Account of the total sale (as available)

A) Sale of dry fish to mahajan			
1st challan (6th Agrahayan)	—	Rs.	3792.91
2nd challan (20th Agrahayan)	—	Rs.	4500.00
3rd challan (15th Paus)	—	Rs.	2100.00
4th challan (11th Magh)	—	Rs.	5286.65
B) Char becha or local sale of dry fish in the island			
1st challan (13th Agrahayan)	— 1 md. 20 kg.	Rs.	128.00
2nd challan (22nd Paus)	— 2 md.	Rs.	144.00
3rd challan (5th Magh)	— 1 md.	Rs.	105.00
C) Sale of fresh fish in the island :			
Total (Details lacking)	—	Rs.	739.00
Total	—	Rs.	16795.56

Table 7. Unit No. X (First Challan)

Sl. No.	Types of fish	Jama (Credit)		Kharach (Debit)		
		Net weight	Dhalta Value (in Rs.)			
1.	Bomla @ Rs. 95.00 (per md.)	17 md. 36 kg. 39 kg. 500 grm.	1623.31	Transport, etc.		Rs. 401.00
2.	Tabra @ Rs. 88.00 (per md.)	15 md. 36 kg. 26 kg.	1309.00	Porter charge		Rs. 18.00
3.	Kekle (chhuri) @ Rs. 82.00 (per md.)	8 md. 19 kg. 23 kg.	668.30	Cash taken		Rs. 1081.00
				Balance in hand		Rs. 2100.00
Total		42 md. 2 md. 8 kg. 11 kg. 500 grm.	3600.61			Rs. 3600.61

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8.8.1374 (B.S.)

Table 8. Unit No. X (Second Challan)					
Sl. No.	Types of fish	Jama (Credit)		Kharach (Debit)	
		Weight	Value (in Rs.)		
1.	Bomla @ Rs. 98.00 (per md.)	20 md. 21 kg. 500 grm.	1988.17	Boat charge	Rs. 60.00
2.	Tabra @ Rs. 90.00 (per md.)	7 md. 6 kg.	643.00	Porter charge	Rs. 19.00
3.	Kekle @ Rs. 85.00 (per md.)	7 md. 23 kg. 500 grm.	645.13	Cash taken	Rs. 2100.00
4.	Chingri (best quality) @ Rs. 75.00 (per md.)	1 md.	75.00	Total	Rs. 2179.00
5.	Chingri (medium quality)	4 md. 11 kg. 500 grm.	214.37	Balance in hand	Rs. 1386.67
	Total	40 md. 22 kg. 500 grm.	3565.67		Rs. 3565.67
Sd/- Sanatan Gain 69.1374 (B.S.)					

Table 9. Unit No. X (Third Challan)					
Sl. No.	Types of fish	Jama (Credit)		Kharach (Debit)	
		Weight	Value (in Rs.)		
1.	Bomla @ Rs. 108.00 (per md.)	12 md. 24 kg. 500 grm.	1362.15	Boat charge	Rs. 55.50
2.	Kekle @ Rs. 83.00 (per md.)	11 md. 6 kg. 500 grm.	926.46	Porter charge	Rs. 17.37
3.	Tabra @ Rs. 99.00 (per md.)	13 md. 24 kg. 500 grm.	1347.62	Miscellaneous	Rs. 225.00
4.	Kekle and Tabra	3 md. 25 kg.	394.50	Cash taken	Rs. 1800.00
				Total	Rs. 2097.87
				Balance in hand	Rs. 1932.86
	Total	41 md. 500 grm.	4030.73		Rs. 4030.73
Sd/- Sanatan Gain 10.10.1974 (B.S.)					

Table 10. Unit No. X		
Account of the total sale (as available)		
A) Sale of dry fish to mahajan		
1st challan (8th Agrahayan)	—	Rs. 3600.61
2nd challan (4th Paus)	—	Rs. 3565.67
3rd challan (10th Magh)	—	Rs. 4030.73
B) Char becha or local sale of dry fish in the island		
1st challan (28th Kartik)	—	Rs. 365.00
2nd challan (7th Paus)	—	Rs. 100.86
3rd challan (16th Paus)	—	Rs. 115.00
4th challan (18th Paus)	—	Rs. 290.00
5th challan (23rd Paus)	—	Rs. 160.00
C) Sale of fresh fish in the island (upto 29.1.1968)		
	—	Rs. 223.00
Total	—	Rs. 12450.01

Table 11. Unit No. XVIII		
Account of the total sale (as available)		
A) Sale of dry fish to mahajan		
1st challan (8th Agrahayan)	—	Rs. 3181.00
2nd challan (4th Paus)	—	Rs. 4093.20
B) Char becha or local sale of dry fish in the island		
1st challan (30th Kartik)	—	Rs. 750.00
2nd challan	—	Rs. 400.00
3rd challan	—	Rs. 221.00
4th challan	—	Rs. 243.00
*C) Sale of fresh fish in the island		
12th Kartik to 19th Agrahayan	—	Rs. 206.80
20th Agrahayan to 29th Agrahayan	—	Rs. 87.59
1st Paus to 15th Paus	—	Rs. 140.83
Total	—	Rs. 9323.32

*Rs. 500.00 was taken as dadan from the local fresh fish aratdar.

N.B. Besides 1st and 2nd challan of dry fish, the amount of the other challans was not available.

APPENDIX I

Value of one full share in different shared units (1967-68)

In the following table the value of one share of the shared fishing units, as has been calculated at the end of the fishing season of 1967-68 is shown.

Table 1.

Unit No.	Value of one full share (in Rs.)	No. of Unit member	No. of Net	Remark
VIII	300.00	16	5	
IX	290.00	17	5	
X	331.00	15	5	
XIV	302.00	16	4	
XV	80.00	5	3	Incurred loss
XVIII	325.00	16	4	
XIX	312.00	10	3	

In each unit the bahardar pays some extra money to those of his choice. The amount depends on the efficiency of those persons. The minors, of course, do not get a full share. They get $\frac{1}{4}$ or $\frac{1}{2}$ of a full share according to their efficiency. The owner of the net, who is mainly the bahardar, gets two shares for each net and for the boat gets one share if that is not rented.

APPENDIX J

The rate of *dhalta* or *balan* is not uniform. It varies according to the types of fish. The rate of *dhalta* is more for varieties of fish whose weight decreases more after drying. In Table X the approximate rate of *dhalta* of some of the varieties of fish is shown.

Table 1. The rate of *dhalta*

The rate of *dhalta*

Bomla	@ 2 kg. per md.
Kekla	@ 2 kg. per md.
Phesa	@ 2 kg. per md.
Bhola	@ 4 kg. per md.
Rangi chingri	@ 5 kg. per md.
Lal chingri	@ 4 kg. per md.
Shankar	@ 4 kg. per md.
Small fish	@ 3 kg. per md.

The rate of *dhalta* is also not uniform to all the aratdars. It also varies according to the quality of fish.

APPENDIX K

BHATIALI SONGS

Bhatiali songs are a type of folk songs of Bengal sung by the fisherfolk and the boatmen while plying the boat. Here some of the bhatiali songs sung by the fisherfolk of Jambudwip are noted.

The songs are transliterated in Roman script and the transliteration represents more or less traditional Bengali spelling, but not necessarily pronunciation.

Song 1

ogo prāṇer bandhu je chila,
amāke durdaśa diye kothay lukaila.
o sakhi go gurukalpa tarubij kore āharāṇ
gurukalpa taru aśe karilām ropāṇ.
ropite ropite br̥kṣa bar̥tite lagila
praṇay batāse phal jhulite lagila.
o sakhi go jogamāya āsiya gela
prem bāri diya premer phul phuṭila go
praśakha śakha beṛiya
malay batāse phal jhulite lagila.
tin dibase tinṭi phal jhariya paṛila.
o sakhi go, prāṇer bandhu je chila
amake durdaśa diye kothay lukaila.

APPENDIX K

Free translation

O dear me,
where gone he?
The most intimate friend of mine—
giving me a lot of trouble
Weil Oh friend, gather I did sanctified seed—
And planted the all blessing tree, (*Kalpa taru*)
Quick did it grow
fruits began to swing in the wind of love
Oh dear friend, Jogamaya came in—
blossomed the flower of love
— with water of love
Fruits dangled in the branches and twigs
with the heavenly wind.
Alas, in three days—
Three fruits withered fell
Oh, bosom friend, where gone he,
The most intimate friend of mine—
— giving me a lot of trouble.

Song 2

Hari bala nauka khola
sadher joyar jay
amar man pabaner beg haiyache
badam tene deo naukay
Hari bala jay
man majhi bhai ei kariyo
dhar dheliye baiṭha baiyo
jeman pare na golay (ghurṇi)
maya jati omni riti
tara ek samane baiṭha bay
Hari bala jay
man majhi go bhai
je naukar majhi bhala
pacher theke age gela
phire phire cay

bhāire sujan majhi bole dāki
 nao lagāiya premtalay
 Hari bala jay.

Free translation

Hurrah, start the boat, in the name of Hari!
 the all expected tide is passing by
 The speed of my mental wind has increased. (or
 I feel strongly inclined)
 Do please hoist the sail
 Hurrah, etc.
 Dear brother sailors (crews)
 Do please ply the paddle close to the bank
 Let not you fall in whirl
 The Mayas are so accustomed—
 They paddle at a time
 Hurrah etc.
 Dear brother sailors,
 The boat with good sailor,
 goes ahead from behind
 and cast a searching eye behind
 Well brother, let us anchor the boat to the bank of love
 — call out for dear friends
 Hurrah etc.

Song 3

māji kai jāore raṅgila nao bāiā
 amār khabar niyā jāo ghāṭe nao lagāiā
 O māji, bahut din gata hāiā,
 pita māṭā biyā dila,
 janam gela kandiā kandiā
 bobā swāmīr ghare thāki
 maner dukhā mane rākhi
 apan pāina kaitham khulā.
 māji bāiā
 māji ho jādī tomār naye dhare,
 uṭhāiā neṃ amāre,

mā bāpere deṣe jāiyo diyā
 ar nā hay ṣūna tumi,
 khabar kaiyā jāigo ami
 kaiyo giyā nāiyor nite aiya
 māji bāiā

māji ho, ei bhabete din rāte
 achi bāya janṭāṇate
 tomar kache khabar dilām kaiyā.
 jādī tomār dayā lage
 kaiyo pita māṭar kache
 nāile ṣoke jaba je mariyā
 māji bāiā.

māji ho, kaṅṅla miyā jāi kay,
 deṣ chāri bideṣi hay
 kubāṭase sab nīla hariyā
 māji amār balte jāhā chila
 sakali bhāi core nīla
 kandi ekhan duihastā uṭhāiā.
 māji bāiā.

Free translation

Where goeth thou, Oh sailor, plying the decorated boat,
 Do please halt here and take my message.
 Days and days have passed,
 Parents gave me in marriage
 Life passes in moaning and moaning
 Living with a husband dumb
 Could ventilate my mind, if found one of choice.
 Where goeth thou etc.
 Do take me in, if your boat permits
 And hand me over to parents in their place
 Or you good friend, I request you,
 please tell them to take me at their place
 Where goeth thou etc.
 Well Oh boatman, thus am passing my days and night
 in greatest of grief and agony
 I tell you these to you.
 If you feel compassionate, please tell my parents
 Or I shall die in grief.

Well Oh boatman, fisherman—Kangal Miya tells—
Has away from own land,
Unfavourable wind has swept away my all
O boatman, what reminded thieves have taken away
Now I only cry with folded hands
Where goeth thou etc.

Song 4

amar kakher kalsi giyache bhasi
majhi tomar naukār gheu lagiya,
kalsi khani diya jao aniya
majhi bhai ebar jadi kalsi amar
haiya jay go tal,
majhigo tomar dese jaoya
haibe biphāl.
ami upay ki kari,
amar sayna deri,
grhe jabar samay jay baiya,
kalsi khana aniya
majhi bhai dhire nauka baiya jadi
sagar haite par,
tabe ki kalsi khani bhasita amar
tumi baiya sadher nao,
majhi kon ba dese jao,
baiya dekhi marcha behus haiya,
kalsi khani diya jao aniya.
majhi kon dese tomar daradi
kon desete ghar,
kahare haraiya tumi
haiyacha papar (pagal).
dwija akhile bale
amar sari aiscale
nauka khani rakhiba bandhiya,
kalsi khani aniya.

Free translation

O boatman, my (loin's) pitcher is drifted away
by the waves of your boat

please, do bring back my pitcher here
O boatman, if my pitcher sinks down the water
your home going will be a vain mission
What shall I do, I can't wait any longer
My time for returning home is fast passing away
Do please bring back my pitcher here.
If you slowly plied the boat to cross the sea (river) —
— My pitcher would never had floated away.
Where goeth thou, with your favourite boat
You are paddling being oblivious of all
Do please bring etc.
O boatman, where is your beloved,
where does she live,
Missing whom, have you been to mad?
Twice-born Akhil says, I shall hold up your
boat by the end of my shari
Do please bring etc.

Song 5

tumi kar ba ramapi—katha balago suni
mathar ghomja diyacha phelaiya
bala katha hriday khuliya.

ekhan tumi jaler ghate esle go asamaye
keman tomar pita mata kajhin hriday
tomar sanghe nai sathi
jadi hay go jakati
dese jaba ki dhan laiya.

manda manda samirap bayeche ujan
liluyar batase ure tomar sarikhān.
aha ki kari rupa madhuri
manrap nitecha hari.

mathar ghomja diyacha pheliya.
manda manda samirap bayeche ujan
srote bhasaiya nila tomar kalsi khan.

baul sure se bale
ami desete gele,

tumay nutan kalsi dibe pashaiya,
mathar ghomja diyacha phelaiya

Free translation

Whose wife are you? tell me so,
Have let fall the veil, from head,
Do tell me all you have in mind.
You have come alone to the bank at the untimely hour
How unkindly your father and mother?
If something untoward does happen,
What treasure can you take back home.
Gentle wind is blowing,
Your *shari* is fluttering in the against wind from Lilooya
What a charming beauty you are!
You have absorbed me, body and soul.
Have let fall the veil of head,
Gentle wind is blowing, against current has drifted away
your pitcher.
He tells in *baul* tune,
When I go to my place, I shall send you a new pitcher.
Have let fall the veil of head.

Song 6

kego kanya tumi bidesini
tomar kare, dekhi bina
mari ki namuna.
kothay thikana, tumi kar kamini
tumi seje banabose ghora nanandese
hao ki kanya tumi banabasin
tomar jagate apana keu ki chilana
nai ki tomar pita janani,
kego bidesini.
tomar syamal baran ruperi kiran
arup nayan baka cahani
tomar cad mukher hasi
bara bhalabasi
rabi shasi hate shreshtha mani
kego bidesini
tomar jauban gache phul phutiyaiche
rase hele pare dal dukhani

tomar madhu amkha phule
malay hillole
jakche bhramar din rajani
tumi bala khule
kiba dhan dile
khusi habe cad badani
dwiija akhile bale
dhan dile dhan mile,
naile ki mile paraśmani
kego bidesini.

Free translation

Who you lady of other land,
Have a tyre in hand
What a beauty!
What is your whereabouts, whose are you the better half?
You clad woodland way, ramble in different land,
Have you lady made forest your home?
Was none in the world to call your own?
Have you no father and mother?
Who you lady of other land,
Glow of your bright brownish complexion
Askance look of your dazzling eye, smile of the beautiful face
I love very much, I esteem more than the sun or the moon
Who you lady of other land
Your youthful tree is blossoming
The branches two are hanging low in youthful juice,
In the heavenly breeze of your sweet scented flower are
humming the bees days and nights
Who you lady of other land, give out your mind.
With what treasure, O you beauty,
you will be satisfied.
Twice-born Akhil says, treasure begets treasure,
else no paramani (a costly gem) can be had
Who you O lady of other land.

Song 7

guru tomar prem-nadite jai kerman kari
amar gan badan chira bhira

calte calena tari
 guru keman kari
 prem nadite jale
 isām jahaj nauka cale
 mal bojhai kaire
 amār tarite legeche go lonā
 kon din jena quiba mari
 guru keman kari
 14 poya tarir dhara
 loya (loha) chapa taktāy joṛa
 jete bhay kari
 amār kampabāne jāmp jāne
 (bhay hale nauka rakṣa kara kaṭhin haye paṛe)
 chiṛe gela kanir dāṛi
 guru tomār prem nadite jai keman kari.
 adhin sures bale manre pagāl
 hate nāire mor pāyer sambāl
 upay ki kari.
 guru ekbar nijaguṇe-neo tarāiya
 dui hāte baiṭha dhari,
 guru kari.

Free translation

O Guru, how shall I go to you river of love?
 My rope and sail are torn and rotten,
 The boat scarcely can move.
 O Guru, etc.
 In the vast water of the river of love
 Steamers and boats ply loaded with cargo,
 Alas, my boat has got salted—
 Might sink any day and I might die
 O Guru etc.
 Fourteen quarter cubits is the keel of the boat
 Planks joined together without iron (pegs)
 Am afraid to go out
 In jerking pull at the dusty wind
 (Afraid lest it become difficult to save the boat)

If the corner rope of the sail gives way
 O Guru etc.
 All submissive Suren says—O you mad one
 What shall I do, I have nothing—no provision to get
 salvation
 Guru, have paddle in both hands and save me by your own
 goodness
 O Guru etc.

Song 8

aro ki kandaibar aśa mane bandhure,
 piriter ei ki riti,
 agune kari basati,
 nanan loke nanan katha ghoṣe
 tumi haile niday aśa ki jiban ray
 praṇ bandhure aro ki kandaibar aśa mane
 bandhure sukher aśa prem kara
 ekhan dekhi dukhi dukkher bāṛa.
 dagdha hallām biraha agune
 jibaner aśa cheṛechi
 praṇ bandhure aro ki kandaibar aśa mane
 gagane ek dinamāṇi
 hajar hajar kamalini
 ceye thake dinamanir pāne.
 bhalabasa dibar tare
 sakaler man santa kare
 tumi amāy bad ditecha kena bandhure
 bandhure dekhiba tomari mukh,
 cheṛechi duniyar sukh,
 ei bhābana āche amār mane
 rames kay kena chal kariyācha
 amār bhitar tumi ācha,
 tumi jethāy ami seikhane,
 praṇ mane.

Free translation

O dear friend, do you hope to make me weep further more?
 Is this the way of love?

Living in the midst of fire
 People spread different tales.
 You are heartless, — What hope is there in life.
 O dear friend, etc.
 O dear, loved for pleasure
 Now, I see it greatly for sorrow —
 Being scorched by the fire of desertion —
 Have given up all hope for life.
 O dear friend etc.
 O dear, one and only one sun in the sky
 And thousands of lotuses are looking at that sun
 To love them all and satisfy them all —
 Why you are forsaking me
 O dear, to see you, have given up all worldly pleasure
 This is the only thought in mind,
 Ramesh says, why play deceitful —
 You are within me (one with me),
 Where you are, I am there,
 O dear friend, etc.

Song 9

ajab karigar bandhure, ajab karigar
 prem kacari taiyar kore
 bandhu lukiye acha tar bhitar
 ajab karigar karigar
 amar bandhu bera sandhani—
 jhar batase ghar
 camfari chani (chauni)
 sara ghare ekti tuni
 tala bandha tar bhitar
 ajab karigar
 amar bandhur buddhi camatkar
 gharer sthane sthane lagaiyache elti
 palakete jhalak mare
 bandhu palake lay sab khabar
 ajab karigar

ghater rage rage bandha
 amabasyay ghare ache purpimiar dadi

gharer nay daraja
 cekhte soja
 dui daraja hacar ghar
 ajab karigar
 pagal rameşe bale
 bandhur sange habe dekha
 iman thik thakle
 iman bina payna tare
 bandhu gelare hajar batsar
 ajab karigar

Free translation

A wonderful architect, my dear friend, a wonderful architect,
 Building a mansion of love —
 Hiding yourself in that
 A wonderful etc.
 My friend is very skilful,
 — Mansion not demolished by storm or gale
 — It's covered with leather
 Only one post in the entire house
 It is closed (confined) although
 A wonderful etc.
 My friend is extremely intelligent,
 — has fitted wire (electric) at places in that
 It is alive in the twinkling of an eye
 And my friend takes all information
 A wonderful etc.
 There's knot (joint) in every junction —
 In it is a fullmoon in newmoon day
 There are nine doors in the house,
 — Two are for air chamber
 A wonderful etc.
 Mad Ramesh says, will meet the friend
 if faith is kept in tact
 None gets him without faith
 Thousand years have passed away
 — A thousand years
 A wonderful etc.

Song 10

ami kebal hailam doṣi
 ami sakhi kari mānā
 keha amāy chuyona
 tomra jata parār paṛṣi
 sakhi jao sakhi twarāy, kaiyo bujhāi
 amār janya bandhu bajay nā bāṣi
 se jadi pare kon jogāye
 dekhte amāre aṣi
 ki sukhe āchi ami
 ami doṣi

ami bhabiyāchi dile
 jā thāke kapale
 kadambe jāle sakhi lagaba phāsi.
 amār eiyer ceye maraṇ, śunā sakhiṅgaṇ
 marle habe khuṣi parār paṛṣi
 ami doṣi.

sakhi kaṅgal mīṇa jāli kay
 maraṇ samay jadi mane lay,
 bandhu dekhe jāo aṣi
 amār mane aṣā chila
 aṣā nā purila
 tomāy laye kartam gayā kaṣi,
 ami doṣi.

Free translation

To be blamed is my lot,
 I tell you friend, let none touch me.
 All you neighbours — go and bring home to friend
 Let him not play on flute for me
 If he can manage let him come and see me
 in what a pitiable plight I am.
 To be blamed etc.
 I am thinking, whatever be destined for me,
 I shall hang from the branch of *kadam* tree
 Death is far better than this.
 Hear Oh friend, neighbours will then be glad.

Fisherman kangal Miya says—
 If you like friend — come and see once while I die
 I had hope, hope not satisfied —
 Would go on pilgrimage with to Gaya and Kashi.
 To be blamed is my lot.

Song 11

bhagirathi ei chila jāllār kapale
 aṣamite brahmaḍala māch bajhenā kona jāle.
 sukratārā udaner kāle

jālla ḍaka ḍaki kare
 ayre bhai amra sakal māch dharite jai
 jāllār karma kuṣṭhā śilabrṣi go mā go
 jātte habe gaṅgar jāle,
 bhagirathi kapale.

kata haṅgar kumbhār jāle bhase go mā go
 bhay kare nā jele, gaṅga debir dayā hale
 bhagirathi kapale.

Free translation

O Bhagirathi (the Ganges) was this in the lot of the
 fisherman—

Brahmo ebb on the eighth lunar day
 — No fish hauled in any net.
 At the rising of the (shuklara) morning star
 The fishermen call each other —

Come brother, let us go to fish.
 As misfortune would have it — there is hail storm and rain
 — O mother

We have to go to the Ganga
 O Bhagirathi etc.
 Sharks and crocodiles in their legions
 — do float on the water
 Fishermen are not afraid, if get your blessing
 O Bhagirathi etc.

Song 12

mān jāḥare uskare thakiyo —
 guru dila ek mān sūta base nāmār jāḥ buniyo
 caitanya namete sūta marjan kariyo
 daś indriya tapil purai
 deher mān ḥik kariyo
 mān thakiyo
 sare aṅ kuṛi calerijal
 prathame bunaiyo
 swarga pātāl calerijal prathame juriyo
 ḍhakiya aḥe śaktirūpa
 pare koṣār jāḥ banaiyo
 mān thakiyo
 kulakundalini kalī jatane sajaiyo
 tare jogadane hata lagaye
 base bindir raṅg caiyo
 O bhāi mān jāḥare thakiyo
 adhin ambika bale
 sadhu saṅge jaiyo
 sadhu saṅge paraṣile
 base deher raṅga caiyo
 mān thakiyo.

Free translation

O dear fisherman, be consciously composed,
 Guru has given one maund of thread
 Be knitting the net of the name (of Gurū),
 Polish the thread with the name of Chaitanya!
 Fill the *tapil* of ten sensations (of mind)
 And be composed (of mind)

O dear fishermen etc.

First knit the *chāl* (a part of the net) of eight scores
 and a half
 And join the *chāl* reaching (heaven and earth below)
 i.e. top to sea bed
 It accommodates the all embracing energy
 And knit the *koṣa* (a part of net) at last

O dear fisherman etc.
 Carefully keep your *Kula Kundalini Kalī* (inner self all
 alive)

Join the handle with her name

And be gazing at the beauty of *bindi* net

O dear fishermen, etc.

Poor Ambika says, company of the honest

If you keep the company of the honest,

You will feel composed in body and soul

O dear fishermen etc.

Song 13

māya gaṅga saraswati
 majhe majhe joyar ase tribeni sāṅgati
 je din nadi hay utala
 tin mayer khela lila
 ekjan kālā, ekjan dhala, ekjan lāl mati
 tin dharate smān karile gaurāṅga murati
 māya gaṅga jamuna saraswati

Free translation

Mysterious Ganga, Jamuna and Saraswati
 At times there is fide at the Tribeni confluence
 Then the rivers become rough.
 There is the sportive game of three mothers
 One is black, one white and one reddish in colour
 Dipping into the three streams is turning into a beauty
 Mysterious Ganga etc.

Song 14

amini tomār praṇ he
 amini tomār bandhu re
 bandhu tomār janya ei gokule
 kalankini radha he
 tumini amār bandhu re
 bandhu jathay tathay thaka bandhu. smaraṇ rekho mane
 amī abhagini radhār nāmī likhiyo carāṇe

tumini amār bandhu re
 bandhu re bhāgi gāṅge thāka bandhu,
 ujan gāṅge hana,
 cokher dekha mukher hasi go
 ke kariyache māna he
 tumini amār bandhu re
 bandhu re sarei bāser bāsi
 tate sapta chada
 bāsi e kemane jāne
 kalāṅkini rādha he
 tumini amār bandhu re

Free translation

Am I not your dear beloved,
 Are you not my friend?
 O my darling, for you am I in this Gokul, the outcaste Radha
 Am I not etc.
 O dear, wherever you are, do please keep me in mind
 And write the name of this unfortunate in your feet.
 Are you not my friend (love:)
 You live in the Ganga both up and down stream,
 Who has prevented you if you only see me and smile
 Are you not my friend?
 O love, a straight bamboo flute
 — with seven holes in it
 How does it know that I am the outcaste Radha?
 Are you not my friend?

Song 15

anāther nāth gorāre
 anāther diye kol sāgare bhasāillare
 anāther nāth gorāre.
 gacher bal bakla khānīre gorā
 mācher bal pāni
 dudher bal mākhān chāna
 amār bal to tumi.
 anāther gorāre

samudreri phena haiyare gorā
 bhasi bake bake
 ore tumi haiyo man paban
 amāy tule niyore
 anāther gorā re

dhāiā aīlām, baiyā railāmre gorā
 baṭābrkṣa tale
 ore patra chedi rauda pāre
 āpan karmā doṣere
 anāther gorāre

Free translation

O Gaur, Lord of the destitute,
 Have loved and then cast me thus in the limitless sea.
 O Gaur etc.
 Skin is the strength of the tree,
 Water of the fish,
 Butter and casein of milk.
 But I have you, whom I may call my own,
 O Gaur etc.
 Being transformed into foam of the sea, O Gaur,
 I float from turning to turning,
 Let you be my favourable wind —
 And do pick me up.
 O Gaur etc.
 I hurried and sat in the shade of a banyan tree
 (i.e. under your care)
 But as fate would have it,
 The sun peeps in through the leaves
 O Gaur etc.

Song 16

gaur rūpe nayan diye saigo
 grhe thāka hala day
 jāgare jāgare gaur sonār gaur antare
 hasta diye dekha nāgo sakhi
 amār gay

amar prāṇ jay
giyechilem suradhani
saigo dāṁsila gaurāṅga phaṇi
o go sarper biṣ jhāṛle name
premer biṣe ujan bay
amar prāṇ jay.

Free translation

Seeing the beauty of Gaur, O dear friend,
It's difficult to stay at home.
Wake, wake O dear Gaur, in my heart of heart.
Just feel my body, O my friend.
I think I am dying.
O my darling I went out
But alas was stung by snake like Gaur
Snake poison can be eliminated by incantation —
But the poison of love, it goes up (against)
I am dying.

APPENDIX L

SOME COMMON VARIETIES OF FISH WITH THEIR LATIN NAME*

Local	Latin
Baca	— Eutropichthya vach
Baila (Samudrik bele)	— Sillaginopsis panijus
Baiś	— Chanos chanos
Baṭā (Baṭhā)	— Lates calcariter
Bheṭki (Bhekṭi)	— Johnius belengerii
Bhola (1) Bhola Bheṭki (2) Datnibhola (3) Koia bhola (Samudrik Koi)	— Etroplus suratensis
Bomlā (see Laiṭṭā)	— Leognathus dumsuniei
Cada (Samudrik Cada)	— Chirocentrus
Cheila	— Caridina gracilipes
Cerpaṭi (Kuttar Jibba)	— propinqua
Churi (see Rupa paṭi)	
Cingri	
(1) Camne	
(2) Ghughu (bhuṣi)	
(3) Haldi	
(4) Lali	
(5) Raṅgi	
Garchi Kakṛā	
Garmā (smaller than Rohit)	
see Rohit	
Gongra (Āṛ-ṭangra)	— Mystus aor
Guila (Gule, Poia, Gunṭe)	— Lepidocephalichthys guntea
Haṅgar (Haṅgor)	— Pristis sp.
Honḍra	

*Latin names have not been given where not available.

Local	Latin
Ica—pok (non edible)	
Ica (Ica)	— (1) Palaemon sp. (2) Lobster
Iisa	— Hilsa ilisha
Kamoṭ	
Karul	— Carcharias sp.
Kaṭa	
Kaun	
Kekle (Sankha chur, Kakle)	— Xenentodon cancila
Kharag mach	
Khayra	— Gudusia chapra
Kiran (non edible)	
Koral	
Laiṭṭa (Neru, bomla)	
Lakhyā see Silaṅg	— Harpodon nehereus
Larka	
Lona (non edible; jelly fish)	
Maiṭha	
Med	
Nala (smaller than Garma) see Garma	
Paṅgaś (Paṅgaś)	— Pangasius pangasius
Pata (see Pheśa)	
Pheśa	— Engraulis telara
Pomfret (Chanda Pomfret)	— Pampus argenteus
Pona (Smaller than Nala) see Nala	
Poṭka	
Riśya (Tapse)	— Polydactylus indicus
Rohit (Rui)	— Lebeo rohita
Rupapaṭi (Churi, Pata, Rupabati)	— Trichiurus savala
Sada pheśa	— Ilisha filigera

Local	Latin
Sankar —	
(1) Aigga	
(2) Bana	
(3) Cal bairagya	
(4) Kaṭa bairagya	
(5) Sun suniṅga	
(6) Surja mukhi	
(7) Teilla	
Saplapata	
Sele	
Sila (bhola)	
Silaṅg (Silong)	— Silonia silondia
Sili bhetki	
Simul	
Siring	
Suśuna (non edible)	
Tengra Nuna Tengra	
Tapasi (see Riśya)	— Mystus gulio
Taitapri	
Titmuri	
Tuler dari	

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GLOSSARY*

The local terms are presented in Roman transliteration representing traditional Bengali spelling system, e.g., śrabān, rāmāyān, pūrpimā, paṣ, etc.

The words which deviated from the standard Bengali form are also transliterated on the model of traditional Bengali spelling system as far as practicable, e.g., āmābasyā (standard form amābasyā), maṣkalai (standard form maṣkalai), etc.

The words which have no model of spelling in Bengali lexicons have been transliterated representing tentative local pronunciation, e.g. śabar, śur, etc.

A

Adam Surut	— name of a star
Adhar	— food for fish, bait of fish
Aghran	— a Bengali month (Nov.-Dec.)
Āiṭhāl maṭi	— sticky soil
Āiṭṭa	— loop used to set net
Āiṭṭa - Kāchi	— wire rope used to set net
Ālki	— a type of wave or breaker suddenly comes causing danger to boat men
Āmābasyā	— new moon
Āmaṅgal	— ill luck
Āmsarat	— mango twig having a few odd number of leaves, believed to be auspicious
Āñjali	— offering
Ārat	— godown
Āratdār	— collection agent
Āṣṭadhātu	— an alloy of eight specific varieties of metallic element thought to be auspicious
Āṣṭami	— eighth lunar day
Āświn	— a Bengali month (Sept.-Oct.)

B

Bābla	— a kind of hard and heavy tree
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*List of fishes noted separately in Appendix L.

Bac	— a kind of herb
Badam	— sail of the boat
Bahardar	— leader and proprietor of fishing unit
Baila maji	— sandy soil
Bair kari	— mid sea
Balsakh - Jyaishta	— Bengali months (April-June)
Baka	— semi-lunate shaped piece of wood
Bandha	— without any outlet
Bandha pukur	— a pond without any outlet
Bangal	— people who originally belonged to East Pakistan used in a derogatory sense
Bara baruś	— a part of net
Bara majhi	— head stealer of the boat
Baraṇ ḍala	— sacred winnowing fan containing different worshipping articles
Batasa	— sugar cake
Batsarik śraddha	— annual <i>śrad</i> ceremony
Bam	— local linear measure to find depth of water; one bam = full length of arm stretch of a normal individual
Bayna	— contract
Baynar ṭaka	— earnest-money
Belca	— iron ladle
Bhadai Amabasya	— new moon day of Bengali month Bhadra (August-September)
Bhadra	— Bengali month (August-September)
Bhagi śabar	— fishing unit with members on share basis
Bhai	— brother
Bhaṣa phār	— deserted net-setting posts
Bhaṭa	— ebb
Bhaṭiali	— a special type of folk song of boatmen of Bengal
Bibi	— a female deity
Bigha	— about 1/3 of an acre of land
Bindi jal	— a type of bag net
Bio	— keel
Bom baś	— lighter type of bamboo
Barabaś	— a special type of bamboo

Bor deoa	— process of rinsing net in preservatives for the second time
Bura	— old
Bura jal	— weathered net

C

Cadar	— wrapper
Caitra	— a Bengali month (Macrh-April)
Cal	— a part of net (literally 'roof')
Cal ḍora	— a strong rope used as a part of net
Calan	— sale account
Camaliś	— a kind of tree suitable for dugout boats
Car	— island
Carbeca	— local sale of fish in the island
Carikha	— spinning wheel
Caṭai	— bamboo mat
Chaker baś	— bamboo handle on the top of bio or the wooden hammer
Chandi jal	— gill net
Chay ghari	— sixth hour
Chay ghari tara	— the name of a star rising at 6 P.M.
Choṭa baruś	— a part of net
Choṭa majhi	— assistant steerer of the boat
Ciruni	— comb
Cokh	— a part of net (literally 'eye')
Corā srot	— under current of water
Cor palanti	— a type of game

D

Dab jal	— water of green coconut
Dadan	— money lending system
Dadandar	— one who advances money
Ḍala	— an approximate period between the fifth to the tenth lunar day when the current of water is low
Dakat	— robber
Dakati tara	— a star

Dakhinali	— southern wind
Dari	— crewman
Dao	— bill-hook knife
Dara jal	— a type of gill net
Darsan	— glimpse
Dasami	— tenth lunar day
Dasī or Daiśya	— a wooden needle used for repairing net
Daur	— fish drying rack; also rack for drying net
Dhairja	— a part of fishing net
Dhalta	— excess weight of fish taken by the financiers of <i>aratdars</i>
Dharam baba	— ceremonial father
Dhruba	— Hindu mythical hero
Dhruba tara	— pole star
Dhuti	— loin cloth
Dolpurpima	— fullmoon day of Bengali month falgun (February-March) when a particular festival is performed
Dubacar	— submerged land during high tide
Duba deli	— land visible during low ebb

E

Ekadaśi	— eleventh lunar day
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F

Fakir	— Muslim mendicant
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G

Ga bhagi	— share of an individual in a fishing unit
Gab	— mangosteen
Gab jal	— gab = mangosteen, jal = water; water of mangosteen

Gaber đonga (Gaber nāo)	— half barrel shaped pot where juice of the bark of <i>garan</i> tree, boiled in water is collected to use it as preservative
Gaber kaş	— mangosteen juice used as preservative
Gair	— small waves on the surface of water
Galai	— prow or stern of the boat
Gamari	— special kind of tree suitable for making dugout
Ganga	— presiding deity of the sea
Ganga jali	— coal tar
Gao đora	— a rope fitting with the net
Ganga ghaṭ	— a sacred pot representing the deity Ganga
Gaṅga pūja	— worship of the deity Ganga
Gāra jal	— heavy water
Garaina	— a part of sea bed
Garainar đhak	— a part of sea bed
Garainar gair	— small waves on the surface of water
Garān chal	— barks of <i>garan</i> tree (a kind of tree)
Ghai	— spot where net is set
Ghair kachi	— a strong rope holding net with the boat
Ghaṭ	— place for anchoring boats near khunti
Goja	— a long piece of bamboo used for setting the net
Gojar khil	— a wooden peg
Gola ghar	— store room
Gun	— narrow string of thread

H

Hari	— a Hindu deity
Hari dhvani	— ejaculating sound in the name of the Lord Hari
Harir luṭ	— distribution of sweets in the name of the Lord Hari
Hat	— a cubit length of linear measurement
Hata	— hand

- Hogla — a kind of water twig
Hom — offering in sacred fire

J

- Jāg - deoa — dipping of net in hot juice of *garas*
chal to counteract salinity of water
Jal kaca — process of washing nets in the sea
Jal doano — process of collecting the catch from the net
Jajman — client
Jal kuāla jaoā — when due to velocity of water current, the *khunti* is uprooted or net turns and fish are not hauled
Jamindar — landlord
Jhāu — pine tree
Jiani — increasing the number of meshes of the fishing net at the time of knitting
Jo — the period from tenth to seventh lunar day when the water current is high
Joyār — tide
Joyār - bhāṭa — tide and ebb
Jokār — auspicious sound made by the movement of tongue
Junī bhāṅga jal — a type of water that glows like firefly due to phosphorus content in it.

K

- Kacāl — a type of gill net
Kala maṣkalai — a variety of pulse
Kali pūjār Amabasya — 15th day of the darker half of the month when annual Kali puja is celebrated.
Kān — ear
Kaca halud — green turmeric
Kandip — a kind of tree suited for making dug out

- Kaṭa — iron brush for brushing hemp to prepare thread out of it.
Kapaṭi — a game played in fishing units
Kartik — a Bengali month (Oct.-Nov.)
Kasar — bell-metal plate used as an musical instrument particularly during worship
Kaṣṭha Debi — presiding deity of the boat
Kaṣṭha Durga — same as *Kaṣṭha Debi*
Kaṭha — 1/20th part of a *bigha* of land
Khai — puffed rice
Khāmar — open courtyard for drying fish
Khana — a mythical female astrologer whose sayings are most commonly used by the peasant community
Khanār bacan — saying of Khana
Khāṅg — fish drying platform
Khāri — maximum depth of water where nets are set
Khāri gaṅg — a part of sea bed
Kholā — open courtyard for drying fish
Khūṭi — fishing camp; also a piece of wooden log used to set net
Khūṭir lok — members of the *khuti*
Khūṭir majhi — general manager of the *khuti*
Kirtan — devotional songs connected with the Lord Hari
Koṭal — new moon or full moon period when the catch is expected to be high
Kul kari — sea near the shore
Kṛṣṇa pakṣa — darker half of the month
Kuri — twenty

L

- Lakṣmībar — Thursday when the female deity Lakshmi is worshiped
Loaiyā — a part of the net made of strong thread
Lodh — sticky soil

THE MOON AND NET

M

Ma	— mother
Mach-dhoa jal	— water in which fresh fish has been washed
Maṅgal ghaṭ	— sacred earthen pot
Magh	— a Bengali month (January-February)
Maghi saptami	— seventh day of the darker half of Bengali month— <i>Magh</i>
Mahābharat	— a Hindu epic—a sacred book
Mahajan	— money lender
Majhi	— steerer
Makar	— a mythical fish believed to be the mount of the deity Ganga
Makar samkranti	— last day of the month of Bengali month <i>Paus</i>
Mauja	— big waves in the mid sea
Marani	— decreasing the number of meshes of the net at the time of knitting
Mattha bhaṅga gair	— broken upper ridges of waves in shallow water
Maulabi	— muslim priest
Man	— measure of Bengali weight (37.5 kilograms approximate)
Mayna pakhi	— sea gulls
Maynar sabar	— fishing units with members recruited on salary basis
Milat	— verses from the sacred books of the Muslim
Muni	— Hindu saint
Murkachi	— wire rope holding <i>goja</i> with <i>khuntis</i>

N

Napit	— barber
Niral	— calm water in mid-sea
Narayan	— a Hindu deity
Nauka	— plank boat
Nabami	— fifteenth lunar day
Nila jal	— blue sea water

GLOSSARY

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Nirmal	— clear
Niśi tara	— a star rising at midnight

O

Ojha	— magician
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P

Pā	— foot, length of a foot used to measure the bread of a boat; one side of a mesh of the net
Pak basān or suta mājā	— fixing the twist of the thread before using it to prepare the net
Paker ghar	— kitchen
Paki	— cook
Pañcayet (śālis)	— ad hoc committee to settle disputes
Pañcamī	— fifth lunar day
Pañja	— palm
Pari	— fairies
Paṭā	— half of each horizontal row of meshes in the net
Paṭam	— flat iron nails to join the planks of the boat together
Paṭla jal	— lighter variety of sea water
Pauṣ	— a Bengali month (Dec. Jan.)
Pauṣ samkranti	— last day of <i>Paus</i> —a day in the middle of January
Phāi	— a flat bamboo split used as an implement to make net
Phalgun	— a Bengali month (February-March)
Phaṅg	— a piece of light bamboo used as floats and to keep the mouth of the net open
Phār	— when <i>khuntis</i> are planted on both sides of the net to hold it firmly
Phār gāra or Phār deoa	— process of planting the <i>khuntis</i>

Phoṭ kaṭa	— disturbed water
Prasād	— food articles offered to deity
Puja	— worship
Pūrṇima	— full moon

R

Ramayāṇ	— a Hindu epic
Rāśi	— sign of the zodiac
Rāś nam	— name of an individual in accordance with the position of the planet at birth
Rāś pūrṇima	— full moon day of Agrahayan (November-December)

S

Sagar mela	— a pilgrimage centre in the Sagar Island in the Bay of Bengal
Sagu	— sago
Sajag nauka	— lively boat
Sal	— a type of tree
Sala	— wife's brother
Saṇ	— hemp
Santir jal	— chanted water
Saptami	— seventh lunar day
Saṅgara or Saṅga nauka	— dugout
Saraṇ paṇa jal	— chanted water to avert evil spirit
Sat	— seven
Sater ḍala	— fifth to eleventh lunar days in the brighter half of the month
Sat jali	— the name of a star
Ser	— Bengali grain measure (930 g approx.)
Sabar	— fishing unit
Sanir paṇali	— booklet in verses depicting the life of the deity Shani
Sani puja	— worship of the deity Shani

Siṅga Dīṅga	— names of two stars
Suk tara	— name of star
Siddha cal	— boiled rice
Sobar ghar	— bed room
Sona ruṇa jal	— turmeric paste diluted in water thought to be auspicious; literally it means gold and silver dipped water which is believed to have purifying effect

Srabāṇ - Bhadra	— Bengali months (July-September)
Sraddha	— rite in commemoration of deceased
Suddhacār	— living in austerity
Sundari gach	— a kind of tree
Sukla pakṣa	— brighter half of the month
Sur	— knot of the mesh
Sutar	— carpenter

T

Tail	— a torpedo shaped split of bamboo used as an implement to knit the net
Tana	— a piece of special type of light bamboo used for setting the net
Tanar baś	— a type of bamboo used to set the net
Taṇar khil	— a strong wooden peg used to set the net
Tar	— narrow string of thread
Tarja	— splitted bamboo—a part of dug out boat
Taur	— spindle
Thoṭ	— beak
Tiner ḍala	— seventh to ninth lunar days in the darker half of the month
Tithi	— lunar position
Tulsi	— basil

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THE MOON AND NET

U

Uchiṣṭa khabār	— polluted food
Uludhwani	— see jokar
Uṭla	— a wire rope which is a part of the fishing net
Uttarali	— northern wind

Z

Zamidār or Jamidār	— land-owner
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THE MOON AND NET



The panoramic view of the fishing camps



A fishing camp. The shrine of the deity Ganga is seen on the right



A covered shrine of the fisherfolk from E. Pakistan

THE MOON AND NET

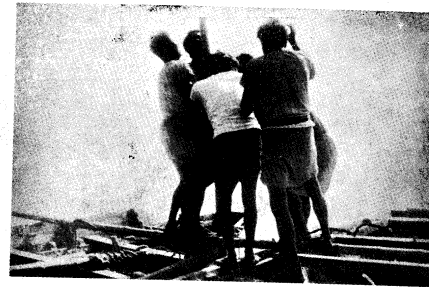


An open shrine of the fisherfolk of W. Bengal proper



Fetching drinking water

THE MOON AND NET



Planting of wooden posts to set the net



Going to set the net



Collecting the catch

THE MOON AND NET



Arrival of the catch



Carrying the catch to the camp

THE MOON AND NET



Sorting the catch

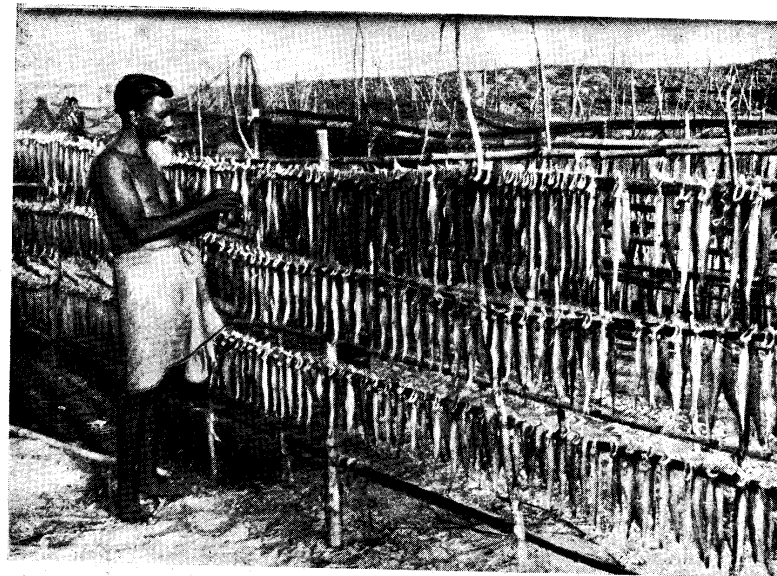


A professional sorting unit



Drying the fish

THE MOON AND NET



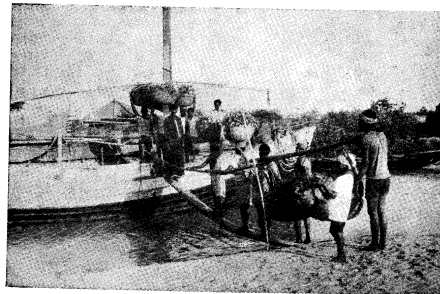
Drying latta fish

THE MOON AND NET

THE MOON AND NET



Fish drying platform

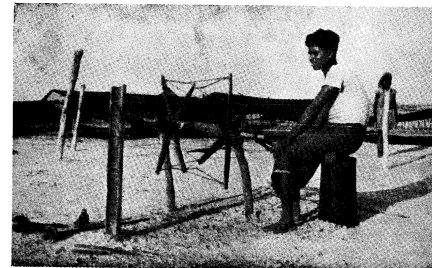


Transporting the dry fish to the mahajan

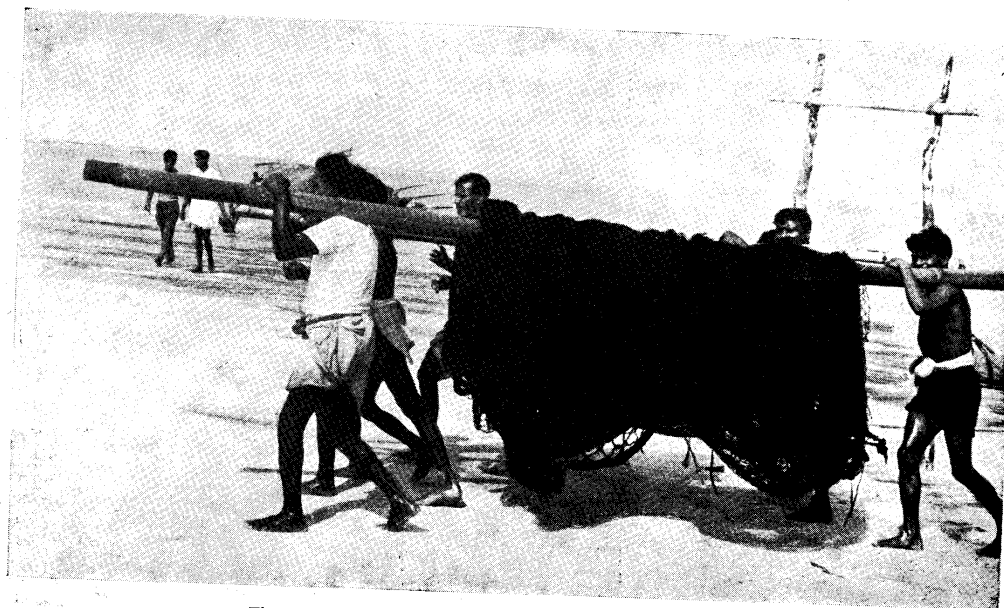
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Petty traders visit the fishing camp

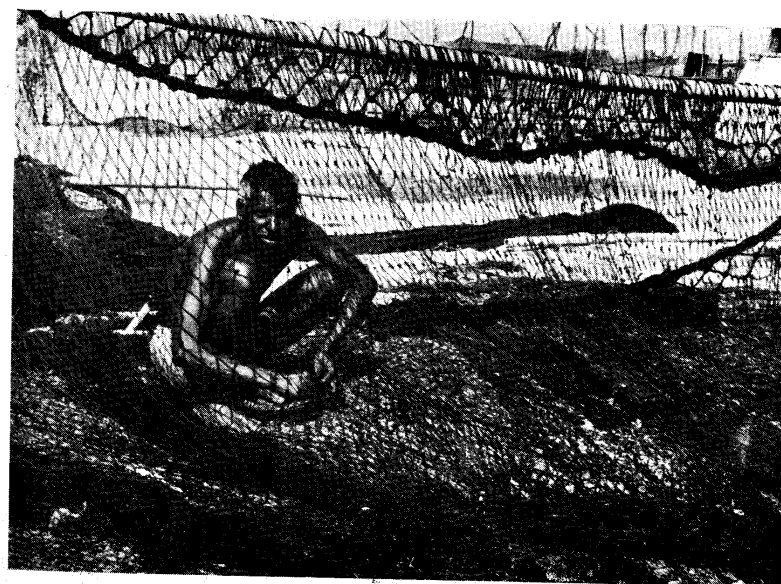


Preparing thread for repairing the net



THE MOON AND NET

The net is brought back to the fishing camp for proper treatment



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Net preparing is a common affair

THE MOON AND NET



Returning with firewood



Boiling preservative of the net

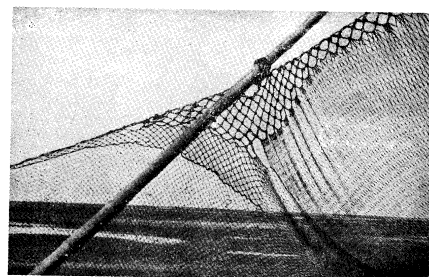


The net is spread over the rack after applying preservative

THE MOON AND NET



Drying the net



"Eye" of the net

THE MOON AND NET



An idol of the deity Ganga



Returning from the sea after fetching water for the propitiation of the deity Ganga

THE MOON AND NET



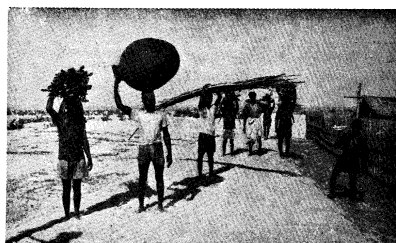
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