CHAPTER 4

PROPERTY RESOURCES AND THE FISHING PRACTICES

This chapter deals with the fishing practices in the Barak Valley with reference to the two fisheries; namely, the Shonebeel and the Barak river. It aims to understand the nature and types of the fishing being practised by the fishing communities in the given property resources of the fisheries. The fishing practices in the given setting consist of types of fishes, fishing techniques and tools, fishing patterns, fishing management, fishery rituals and fishing cycle whereas the property resources comprise the Common Property Resources (CPRs) and the Private Property Resources (PPRs). These practices have been examined in the context of dynamics and interplay of the two types of property resources under the two fisheries. Thus, the chapter contains a discussion on the types and dynamics of property resources, fishing practices and comparison of the property resources and the fishing practices in the two fisheries.

THE PROPERTY RESOURCES

In the Barak Valley, generally, two types of fish property resources are available; viz., Private Property Resources and the Common Property Resources. The Private Property Resources (PPRs) are the resources which are being exploited by the owner(s) of the fishery while the Common Property Resources (CPRs) are those ones which can be exploited communually by the community people or by a group of the people (Jodha 1994). Private fishery

owned privately is looked after solely by its owner who decides fishing, selling of fish or their domestic consumption while in community fishery the such matters are to be decided by the community. Further, in community fishery, other agencies like Government and co-operative societies are involved in its management. The Government earn revenue by auctioning its fish for some specific period either to a cooperative society or to an individual or group of individuals. Generally, a beel fishery in Assam is dealt with by the Assam Fishery Development Corporation (AFDC) under Government of Assam while a river fishery is handled by the Deputy Commissioner (District Administration) of the concerned district. Generally, the tender for auctioning fisheries to the community fisheries is invited in the month of March for three years.

THE SHONEBEEL FISH PROPERTY RESOURCES

In the Shonebeel, both, the private property (fish) resources and the common property (fish) resources are found.

Shonebeel has an area of 3,179.24 acres. But during the rainy season (April – September), flood water covers approximately 5,000 acres of area. The additional area submerged by the flood water belongs to private land holdings and fisheries which remain submerged from the last part of May to that part of September. During the period, the entire water flooded area convert into CPR and CPR fishing is practiced in it. Before starting CPR fishing, a general body meeting with of the fishermen of the Shonebeel is held by the secretary of the Shonbeel Fishermen Cooperative Society Limited (SFCSL). In the meeting, the member-fishermen of SFCSL decide to ban fishing for three and half months, i.e., from 1st April to 15th July in the beel in order to allow the fishes to grow as this period is high time for breeding.

Hence, fish may breed properly. On completion of the period fishing is started. That is, after 15th July the catching of fish is started. As the flood water start receding from the month of October or so, the land gradually emerges out to be available for private cultivation as well as PPR fishing and in the winter the additionally submerged land entirely converts into PPR. Even in the winter when the PPR land holdings remain vacant they are used as the CPRs for the purpose of movement of people and cattle as well as grazing of cattle.

According to Office of the Settlement Officer Land and Revenue Branch, Ramkrishna Nagar, Karimganj, approximately 2000 acres of land is utilized for cultivation. Nearly 200 acres of cultivable land generally remains uncultivated. The cultivators do not take any risk to cultivate it because the beel area being low-lying gets flooded on sudden rainfall. Besides of overuse of chemical fertilizers in paddy cultivation, the land quality is continuously getting degraded. About 4% of the land is affected by serious water logging and eutrophication. This means that a significant proportion of the land may be considered as sick and it needs tending (Kar 1984).

After the recession of water in the winter (October – March), the vast area of the Shonebeel's private land holdings re-emerge and the CPR converts into the PPR. Thus, there is a constant interplay between Private Property Resources (PPRs) and Common Property Resources (CPRs) due to sub-merger of vast wetland tracts in the rainy season (April-September) and recession of water in the winter (October – March). In the rainy season, when the water submerges the entire area, it becomes CPR and any fisherman of the beel can fish anywhere in the beel area. However, in the winter when the water

recedes the land holdings re-appear to become the PPR and then only the private pond holders can catch fish from their own ponds.

Thus, in the Shonebeel there is a regular conversion of the CPR fish to the PPR fish and vice versa under the functioning of the natural environment.

THE BARAK RIVER FISH PROPERTY RESOURCES

In the Barak River fishery there is found only the CPR type of fish resources round the year. Right from its entry into the Barak Valley the river has been divided into a number of part fisheries each under a co-operative society and each fishery has fishermen registered under it. Fish may be caught by any registered member of the co-operative society formed for that particular part fishery. Each of the co-operative societies has jurisdiction over the specific zone (Part fishery) of the river, where its members can catch fish. Each member of a particular cooperative society has a legal right to catch fish within the river's part allocated to it. In Cachar district, the entire Barak is divided into nine parts. Each part is controlled by a registered co-operative society. The fishing practices are accommodated within the nature and the dynamics of the fishery. Thus, the Barak river embodies the part fisheries of the CPR nature.

Briefly, the two fisheries differ in terms of the nature of the property resources. The Shonebeel regularly witnesses a conversion of PPR to CPR and vice versa in a year whereas the Barak river remains CPR only round the year.

THE FISHING PRACTICES

The fishing being practised in the two fisheries is discussed in terms of types of fish, fishing patterns, fishing tools and techniques, fish behaviour's

knowledge, fishing rituals, fishing cycle, fishing management and fish marketing and consumption. The fishing practices in the two fisheries are discussed below separately.

THE FISHING PRACTICES IN THE SHONEBEEL

As the Shonebeel fisheries signifies a regular interplay between the CPR and the PPR fish it reveals various dynamics of the fishing practices going on there. In the Shonebeel the following practices are prevailing presently.

Fish Typing

There are various types of fish available in the Shonebeel. The fishermen have given local names to these varieties to identify them. These types have significance for fishing from the view point of market and people's choice. Commonly available fish species under the CPR type are as follows :

Chart 4.1 : Fish Species in the Shonebeel Fishery

Sl. No.	*Local Name*	*Scientific Name*
1	Puti	*Puntius ticto*
2	Tengra	*Mystus spp.*
3	Moka	*Amblypharyngodon mola*
4	Cheng	*Channa punctatus*
5	Bame	*Mastacembalus sp.*
6	Baccha	*Eutropicthys vacha*
7	Chapila	*Gudusia chapra*
8	Chela	*Oxygaster sp.*
9	Mrigel	*Cirrhinus mrigala*
10	Magur	*Clarius batrachus*
11	Singi	*Heteropneustes fossilis*
12	Koi	*Anabus testudineus*
13	Goroi	*Channa orientalis*
14	Kangla	*Notopterus notopterus*
15	Japani Rui	*Cyprinus carpoi var. communis*
16	Boal	*Wallago attu*
17	Baus	*Labeo calbasu*
18	Lacho	*Cirrhinus reba*
19	Elong	*Bengala elanga elanga*
20	Khalisa	*Colisa fasciatus*
21	Grass Carp	*Ctenopharyngodon idella*

22	Rani	*Trichogaster fasciatus*
23	Chanda	*Chanda nama*
24	Bag	*Bagarius bagarius*
25	Bashpata	*Ailia coila*
26	Ilish	*Hilsa ilisha*
27	Rohu	*Labeo rohita*
28	Silver carp	*Hypopthalmichthys molitrix*
29	Chingri (shrimp)	*Macrobrachium sp.*

Source : Field Survey Conducted During January 2005 to December 2006

Some types of fish have a high socio-cultural value. Puti (*Puntius ticto*) and Rohu (*Labeo rohita*), the two varieties, are widely used by the Hindus, particularly the Bengali speaking people (which includes both Patnis and Kaivartyas) as these fishes have scales on their bodies which are considered auspicious for any activity. During a marriage ceremony, it is mandatory to bring and keep *rohu* fish in the bride's as well as bride groom's family and finally it is eaten. Besides, on the last day of the annual Durga Puja festival when the Goddess Durga is taken for *bisarjan* (dispersion) ceremony, *puti* or *rohu* fish will be kept near the main door of every house. *Cheng*, *singi* and *magur* are widely eaten by anaemic patients or by any patient in the post-operative stage, believing that it supplies ample blood to the patients. *Chingri* (Shrimp), *Hilsa*, *Vacha*, *Boal* and *Bashpata* are in high demand in the domestic market because of their delicious dish variety.

Out of these common varieties, some species have become increasingly rare in the last ten years. These are :

1. Boal *Wallago attu*
2. Bacha *Eutropicthys vacha*
3. Chapila *Gudusia chapra*

Besides, several varieties of fish in the Shonebeel and a large number of aquatic birds such as *pani-khauri*, kingfisher, adjutant stork, crane, *harali*, etc. are

available. But, gradually the number of the aquatic birds has been dwindling due to ruthless hunting of these birds. The local fishermen enjoy the taste of their delicious meat. Apart from the aquatic birds, the Shonebeel has been hosting the Siberian migratory birds till two decades ago. But, now a days, these birds have stopped to arrive. There has taken place a massive clearing of the *Hugla* and *Nalkhaghra* forests wherein these birds took shelter earlier (Tapadar 2008).

The Fishing Pattern

The CPR fishing pattern is almost similar everywhere in the Shonebeel fishery. Most of the fishermen prefer fishing in groups because generally big nets are handled comfortably in the beel. However, for domestic consumption, the women folks are preferring individual fishing as they generally use hooks, traps or small sized nets. The entire beel fishery is under the control of the Shonebeel Fishermen Co-operative Society Limited (SFCSL) and a registered member of the SFCSL can fish anywhere in the beel. Actually, the Society divides the entire beel into a number of zones. Each fishing community/group_tries to fish in the zone allocated to it. However, there is also found frequent conflict between various groups or communities arising out of intrusion into other's zone for fishing. In the winter, mostly the PPR fishing is practiced and individuals catch fish from their own ponds. A little of the CPR fishing is practices in a few rivulets, canals, etc.

The Fishing Tools and Techniques

The Shonebeel fishermen mainly use five tools for fishing; namely, *jals* (nets), boats, canoes, hooks and traps.

Jals

Patnis are considered experts in knitting fishing nets. Before 1990, all the fishermen of the Patni community knit their own nets as well as those for

other communities. The Patnis had such expertise as they could knit the nets even in the dark. They had expertise especially in cast net. But their new generation is quite ignorant about the techniques of net making as they get machine made and cheaper nets in the market. Previously, the housewives and the old persons were engaged in making such nets. The machine made nets have robbed the Patnis of their traditional skill and income, especially the women folk and the old persons. Now-a-days, all the fishermen of the Kaivartya, the Patni and the Mahimal prefer to purchase nets from the market. Various types of nets and their specificities are shown in the following chart :

Chart 4.2 : Types of Gears (Nets) Used in the Shonebeel Fishery

Sl. No.	*Type of gear / Net*	*Local Name*	*Mesh size (in mm)*	*Net size*	*Number of fisher - men required to operate*
1	Drag net	*Berjal*	61 – 115	61 – 155	7 to 9
2	Gill net	*Fashjal / Lung jal*	80 – 140	80 – 140	1 to 3
3	Cast net	*Ghurrainna jal / Jaki jal*	70 – 190	70 – 190	8 to 10
4	Bag net	*Kona jal / Bostanet*	Not available	Not available	2
5	Dip net / Liff net	*Dekhli jal / Khoral jal*	80 – 200	32 ft	1
6	Siene and drag net	*Mahajal*	70 – 190	1800 x 3000 ft depth 32 ft.	15 – 20
7	Rod and Line	*Borshi*	Not available	Not available	2
8	Trawl / dragging gear	*Ferry jal*	15 – 30	60 ft – 180 ft depth 140	4
9	Purse net	*Illisha- Kangla jal*	80 – 140	100 ft – 140 ft. depth 35 ft.	2

Source : Field Survey Conducted During January 2005 to December 2006

Boats

Boats are essential in the Shonebeel both for fishing and transportation. Four types of boats are used for fishing purpose. These are (i) Canoe, (ii)

Boat, (iii) Ghumti boat, and (iv) Sail boat. All the boats are generally made from timber of *Jaroil* and *Rata* varieties of trees, available in the Karimganj market. The speciality of these wood varieties is that they are quite durable in water. That is why in the dry season (winter season) when the water recedes they submerge the boats in pond water in order to protect them from getting cracked under the impact of heat from the Sun.

Canoe (*Dingi Naouka*)

It is a very small and narrow boat, about 10 to 12 ft. long. One side of the boat is at par with the water level while the other side is raised above it. To keep the boat in balance the boatman sits on the lower side of the hull. Because of its light weight it moves fast. Even a young boy or woman can handle it.

Boat (*Nouka*)

This is a boat big in size having a length of 18 to 20 feet. It can carry more weight and atleast twenty passengers. It is paddled by two persons.

Ghumti Boat (*Ghumti Nouka*)

This boat is also widely used. The speciality of the boat is that it has small roof which safeguards the passengers on board in the event of heavy showers. The roof is made of polythene sheet or bamboo or thatch. In the night when the fishermen get tired while waiting for fish they can sleep or take rest inside the Ghumti Nouka.

Sail boat (*Paltula Nouka*)

The fishermen in the Shonebeel are expert in using sail boat. Depending upon the wind flow, they use the sail boat and this consumes less energy by using wind power effectively. As a result they get more benefits by investing less efforts in paddling the boats.

Generally, the fishermen get prepared their boats by hiring artisans from some places, especially from Katigorah of Cahcar district. It takes almost a month to build a big boat. Of course, it also depends upon the number and ability of the boat makers. To shape the boat, the boat maker bends the wood as per the requirement by using specific instruments. The newly made boat is painted with bitumen for its long lasting.

Fishing Nets (*Jals*)

There are various types of nets /gears/ *jals* used for fishing. But due to the depletion of several fish species, many of the nets have become obsolete. Most popular nets were : (i) *Hugar jal*, (ii) *Dorar jal*, (iii) *Chhick jal*, (iv) *Fash jal*, (v) *Jhupra jal*, (vi) *Chhatka jal.*

Hugar Jal

Huga means chapila fish (*Gudusia chapra*) and the net used to catch it is called Hugar Jal. Presently the hugar jal is not found in the beel owing to extinction of this fish variety. It is believed that the sound of frequently moving machine boats affects the fishes as these fishes are staying at the upper layer of the water. Earlier, through the Kakra stream, the *chapila* fish were used to entered the beel. But now a sluice gate constructed on Kakra river hinders entry of this species into the beel.

Dorar Jal

It has become extinct as it is mainly used to catch Aair fish (*Aorichthys aor*), Bame fish (*Mastacembalus sp.*), Tengra (*Mystus spp.*), Puti (*Puntius ticto*), etc., which have already endangered in the beel.

Besides, Jhupara jal which was mainly used for catching rohu (*Labeo rohita*), Boal (*Wallago attu*) and Ghania (*Labeo gonius*) while *Chik Jal* was used

for catching Rohu (*Labeo rohita*) and Catla (*Catla catla*) and the Chhatka Jal was used for catching chapila fish (*Gudusia chapra*).

The following are the nets / gears / traps generally found in use in the Shonebeel.

Mahajal

The *Mahajal* is a very big net (1800 ft to 3000 ft x 32 ft) woven out of cotton threads. Its use requires a team of fishermen. At least 15 to 20 fishermen are required to use this net. For using this net, at least two canoes are required for placing the nets properly while 4 to 5 big boats are required, each, generally carrying four to six members. The *jal* generally carried on big boats. The cost of the net is about Rs. 80,000/- to Rs. 1,00,000/-. This net is available at the Karimganj market. As it is mostly impossible for individual fisherman to purchase the *jal* of such a cost, the fishermen generally purchase it jointly. They also select their group leader in a meeting to avoid any kind of dispute over the *jal* and everybody is bound to follow his order. However, if any dispute arises during fishing they discuss and sort out it in a democratic way. The *mahajal* type of fishing is entirely based on co-operative system. All the fish caught are sold in the market on that very day and the amount is equally distributed among the partners. Now, for this type of *jal* one may have to hire fishermen from other places. In this case, the *jal* owners possess all the customary rights. The fishermen leave for the fishing ground after taking their meal generally by 6 to 7 pm and reach there by around 7 to 8 pm. Having reached there the members begin to release the net from the boats which takes almost an hour, i.e., between 8 and 9.30 pm. During the placement the members from canoe help the other members. The net in water weighs more

and the co-operation of all the members is required. The entire process requires atleast 4 to 5 hours. Generally they deploy it twice a night and return home after selling the fish from 7 am to 8 am. This routine goes on through out the season. Notably, the first day of the fishing is celebrated in a tea party meet held exclusively for the members of the *mahajal*. The group of *mahajal* is formed by the nearest members or the kinsmen or friends. Generally all the members involved in the fishing expedition of *mahajal* are the sharing partners of the total catch.

In the 1960s, the number of the users of mahajal was used to be more i.e., 15 to 20. From the 1970s the number has come down to 10 to 12. The fishermen now think that using of other types of net is more profitable and accessible as other types of net require more fishermen and they cost less than the mahajal.

Patan Jal or Fash jal

Patanjal is now most widely used net. It is made of synthetic fibres easily available in the market. It has intertwined holes of different sizes to trap different types of fish. The *jal* is about 150 ft in length. A special boat is used for operating this net. The boat size is generally 15 to 18 ft. One side of the boat's hull remains at the water level and the other side remains above the water level to maintain the balance. The fisherman sits at the lower side of the hull and releases the net. After the *jal* has been released in water and fishes have been caught in its holes, the net is lifted up. This type of fishing is practised solely by individuals. A single fisherman can easily use this 14 to 15 ft. long *jal*. However, for an individual fishermen it is not possible to invest a huge amount of Rs. 60,000/- to Rs. 90,000/- and therefore, generally two or

three fishermen join together to purchase the *jal* and take up fishing expeditions jointly, or sometimes, besides a few, the other members remain inactive partners by investing a certain amount only on some specific terms and conditions.

Ghurrainna Jal

It is a small *jal* mainly used for catching small varieties of fish in shallow waters. It requires a boat with a size of about 18 to 20 feet long. The boat carries three fishermen members : One stays aboard boat and the other two members get down into the water to deploy the net. A corner of the *jal* is fixed at a certain point and the other edge is moved in a circle inevitably coming to the first point. In order to keep the *jal* in place undisturbed some bamboo posts may be fixed. Like the *patan jal*, it is also made of synthetic fibres easily available in the market.

Hooks

The hook is also known as *datia*. With hooks, a single fisherman can catch fish easily by using single canoe. A nylon rope is fixed with a variety of barbed hooks placed at an interval of 1 or 1.5 ft. The length of the rope is approximately one km and every barbed hooks will take a bait of earth worm or flour paste. This rope is released in water and after sometimes the rope is lifted and the fish are collected from the hooks. Thus, it is a continuous process of arranging baits and collecting fishes.

Other Nets

When the water begins to recede, the fishermen widely use *Ural* jal or Jakijal (Cast net). Besides this, *Paloinjal* or *Tanajal*, *Berjal* (drag net), *Kona jal* (bag net), *Ferry jal* (trawl), *Ilisha – Kangla jal* (purse net) etc. are also used.

Fishing Traps

For domestic consumption, the fishing communities widely use traps.to catch fishes. Mainly these are : (i) *roonga*, (ii) *dori*, (iii) *pharong* and (iv) *polo*.

The traps are made of bamboo. They are placed at the junction of water streams. With these traps generally small fishes are caught. Sometimes, Boal (*wallago attu*), Kangla (*Notopterus notoptems*),etc. are also caught by these traps.

For catching fish, the people use various trap techniques variously : (i) For domestic consumption, they widely use *roonga, chhepa, dori, pharong*, etc. by placing them at the junctions of water streams (ii) There is another technique applied by the fishermen to catch fish. The fish with scales, while laying eggs, flare up the scales to protect and fertilize their eggs under the scales. But the fish not having scales at all or not having dense scales go down under the water to lay eggs by making holes called *khabis* in a muddy ground. The fishermen search such *khabis* by placing *chara* (bait) made of rice and dust of *methi* to attract the fish and fishes are caught by using hooks. These types of fishes are mainly Boal (*Wallago attu*), Kangla (*Notopterus notoptems*), Chital (*Notopterus chitala*) etc. (iii) Besides, in another technique called *panichhanda,* two fishermen get down into water upto their hips and stand confronting each other. Then, they start pushing back the water so as to create an artificial whirl in the water. By doing this, many of the fishes come up into the whirl. The fish varieties like tengra *(Mystus spp.),* Koi (*Anabus testudineus*) Magur (*Clarius batrachus*) etc. are caught easily by using this technique.

Generally, when the fishermen catch the fish by *mahajal* (siene and drag net) and *Berjal*, they apply various techniques. While deploying the net, one

side is kept open and then two or more fishermen create an artificial wave in the water at least 20 ft. away in the open side of the net. The fishes get scared and run towards the net. Meanwhile the other fishermen close the net and lift it. By this technique, the fishermen catch a good number of fishes.

The Fishing management

Owing to the regular interplay between the CPR and the PPR fishing management is available for, both, private fisheries and common fishery in the Shonebeel. There is found a number of natural fisheries in the beel's catchment area. Of these, the most important private fisheries are : *Boroikuri*, *Bhasankul*, *Panch Tikri*, *Kalakuri*, *Rona* and Chota beel. Kuri means low-lying place in *Sylheti* dialect of Bengali language. The natural private fisheries are distinctly characterized by floods. In the summer, they get inundated by the flood water and become common property resource while in winter, after the recession of the flood water, these fisheries re-surface and are each leased out by the SFCSL to a group of individuals for catching fish from September to March. As the common property they are exploited by any one. But as the private property they remain under the control of individual owners.

For the PPR natural fisheries, there prevail some rules and regulations informed by the Shonebeel Fishermen Co-operative Society Limited (SFCSL). which takes the beel on lease from the Government for seven years. Assam State Fishery Development Corporation (AFDC) under the Government of Assam is the agency to look after the beel fishery on behalf of the Government and SFCSL takes it in lease from AFDC, Guwahati. The AFDC has right to cancel the contract signed with SFCSL and to give it to any new party on lease, if the latter fails to make regular payment of the fixed installments. To collect

revenue, the SFCSL may further seek tenders from individual members or their groups. Generally, it invites the tender for the period from September to February in a year. Fishes are generally caught during the month of March. Generally, the various natural fisheries of the beel are leased out to the different individuals. As the flood water recedes faster from the upper portion of the beel and therefore the natural private fishing of the upper part will be protected from CPR fishing. In the last part of October, the middle part of the beel from November and the lower portion of the beel from the last part of November. The lessee will take care of nurturing of fishes and sell it in the month of February and March.

Before allowing the fishermen, the CPR fish exploitation, the SFCSL holds a meeting of its members. In the meeting each member can express his views on the way of fishing for the year. The members decide about the method of the CPR fishing where they specify the type of nets to be used to avoid overexploitation of fish resource and fish seeds. Once decided they cannot alter it and violation of decisions leads to severe punishment like not allowing to catch fish through out the year. In the rainy season they use *Mahajal* (siene and dragnet), *Patanjal* or *Fash jal* (Gill net), *Ghurrainna jal* (Cast net) and *Berjal* (Drag net).

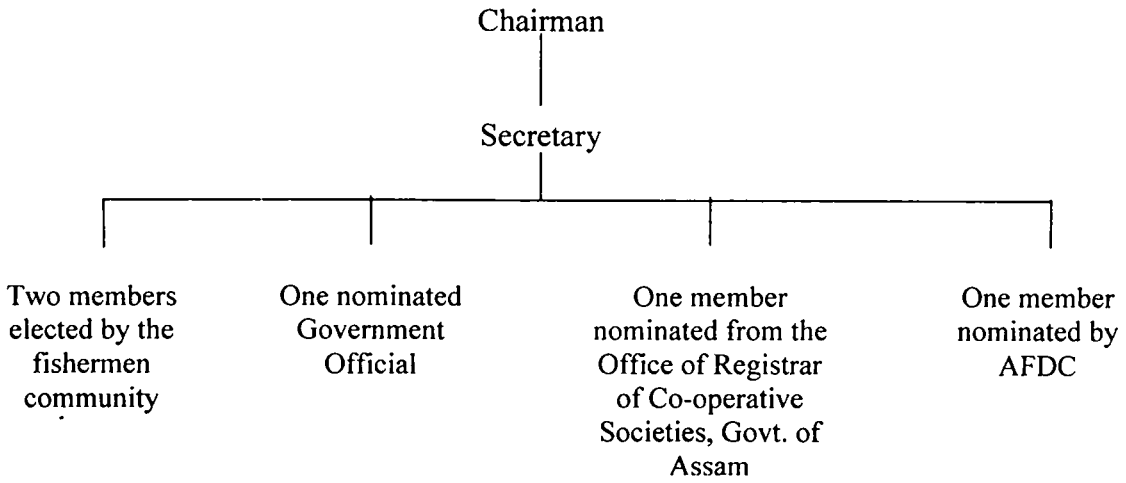
In the entire beel, only seven *mahajals* are used daily. In Devadwar, only two *mahajals* are found while in Belala no mahajal is found. Besides these nets, bag net (*Kona jal*), Dipnet *(Khora jal*), Dragged gear (*Ferry jal*), Purse net (*Illisha – Kangla*) are also used. *Kora jal / Dekhi jal* (Dip net) is generally placed in streams. Apart from these, *Chhatkajal, Horonjal, Regjal* /hooks (*Borsi*) and traps are used in shallow waters. The hooks are placed on the

same rope at an interval of about one foot. Different species of fishes require different types of hooks which are available in the market. In the meetings all the members openly discuss and express their views and pledge to abide by the decisions made. Finally, sweets are distributed among the members present. The meeting is absolutely restricted to the members only. The fishing rights in the beel can be availed only by the permanent inhabitants of the beel. Even a landholder but not resident of the Shonebeel is not allowed to catch fish from the beel.

However, the Talukdar community of Boroikuri do not abide by the rules of the SFCSL. Actually, they do not have the fishing rights in the beel as per the constitution of the society. According to the constitution a registered member is allowed fishing in the beel. But they are fishing in the beel either by applying muscle power or by their amicable relations maintained with the fishing communities. Thus, aberrations in the fishing management are going on side by side.

The Government is collecting revenue from either the individual lessee or from the group of lessees or from the SFCSL, while SFCSL is collecting the revenue from each and every member of the society. After the elimination of the zamindari system in 1966 SFCSL was established in 1975. Any fisherman can become a member of the society by purchasing a membership card for Rs. 11/- in favour of the SFCSL by depositing the amount in the Assam Co-operative Apex Bank Limited, Ramkrishna Nagar Branch. For proper working of SFCSL there is constituted a committee of elected and nominated members.

The structure of the SFCSL is given below :



Thus, SFCSL has a Chairman, a Secretary and five members; namely, a Government official, two officials from the Office of Registrar of Co-operative Societies and an AFDC official. There is also an office bearer and a peon. Two members as well as Chairman and Secretary are elected by the fishermen members of the society besides, a peon and an office bearer is appointed by the committee. Thus, the committee of the SFCSL is constituted with seven members of which four members are elected for fishing management purpose and two employees are appointed for its office maintenance.

The primary goal of the society is to develop economically the fishing communities by proper fish exploitation in the beel. The society is responsbible for the fishing communities' socio-economic development such as road construction, repairing, construction of roads, bandh repairing, etc. The society has laid down the following rules for fishing in the beel :

(i) To catch the fish in the beel, each and every fisherman has to register under this society by purchasing a membership card.

(ii) All the members have to abide by the rules of the society.

(iii) At any cost they will not to be allowed to catch fish during the breeding season, i.e., from the 1st day of April to the 15th day of July.

(iv) They cannot go for open fishing.

(v) During the period of banned fishing, if anybody is caught for fishing, he will be expelled from the fishing for the whole season.

(vi) To solve any type of fishing related problems of the fishermen.

Upto 1997, the total membership of the beel under the society was only 2,882. In the year 1997, Tapan Kumar Das took the charge of Secretary and Sri Rathi Kanta Das as Chairman of the society. Thereafter, its membership has gone up significantly. According to the information from the Office of the SFCSL, upto 2007, the membership has touched the figure of 4,225.

To control the society and manage the beel fishing at the Government level, AFDC, Guwahati, plays an important role. The society receives the beel on lease from AFDC for 7 years. However, AFDC has every right to lease out the beel to any individual(s) or any private party. If the Society fails to pay regular installments of the fixed amount, AFDC may cancel the contract and lease out the beel to a new party. To collect revenue the Society further seeks tenders from individual members or their groups. Half of the revenue collected is paid to the AFDC and the other half is retained by the Society. But informal sources of the society revealed that the revenue collection is shown much less by the Society than that actually collected. The revenue remaining with the Society is utilized for the development of the villages. Sometimes there have been disputes between AFDC and the Society over the annual increase of the revenue. Generally AFDC gives relaxation in payment to the lease holders in the 2nd year, 3rd year and so on in the annual increase (10% per annum) of the original tender value. In 2004-05, AFDC did not give any relaxation to the Society in the annual increase of revenue payment and the society disputed

over it. The AFDC withdrew the contract with the Society and leased out the beel to an individual, Jitendra Das. The Society filed a suit in the court of law, which gave verdict in favour of the Society and the beel was given on lease to the Society again.

Its fish production and revenue in the month of December 2004 and January 2005 as recorded in the Office of the AFDC, Rongpur, Silchar has been given the following table :

Table 4.1 : Production of Fish in the Shonebeel

Month	*Weight of the fish (in tonnes)*	*Society's benefit (in Rs.)*	*AFDC office's benefit (in Rs.)*	*Total (in Rs.)*
December 2004	1,958	43,745	43,745	87,490
January 2005	2,748.66	63,622	63622	1,27,244

Source : Assam Fishery Development Corporation, Rongpur, Silchar

However, informal sources have reported the business of at least three crores taking place every year. This indicates the corruption and lacuna in the beel's management at the cost of the socio-economic development of the fishing communities and the revenue contribution to the state. The Society does not interfere in the matter of the PPR fisheries of the natural ponds once these are leased out.

The Fish Behaviour Detection

Through their observations and experiences the fishermen have gathered a sound knowledge about behavioural peculiarities of various fishes on certain occasions and periods. They know that when it is the sunrise or sunset; '*vashan mach*' (the fishes generally found in the top layer of water) such as Chapila (*Gudusia chapra*), Bash *pata* (*Ailia coila*) and *Lacho* (*Cirrhinus reba*) come in

schools (groups) over the water surface everyday. They wait for the catch. Then, they are sure that in the 8th night of the full moon, at around 2 a.m., the fishes do surface on the water. By their experience they are quite aware that small fishes are mostly found in shallow or stagnant water and big fishes in deep water. The fishermen are so experienced that they can guess the type of fishes merely by looking the nature of water in a given area. In the winter when the water begins to recede, they know that the fishes will be moving towards deeper water. So they create barriers of branches of *Sheora* tree and bamboo to retain them in the vacated area for catch. Another interesting behaviour of the fishes is observed in the rainy season. The fishermen have experienced that when the sky is overcast and thunder starts, the fishes swim against the current of water; the fishes play and jump in the water. The fish species such as Koi (*Anabus testudineus*), Magur (*Clarius batrachus*), etc. swim on the surface and reach the banks of the beel. The fishemen wait there to catch them. In the rains, their catch is always encouraging.

Fishing Rituals and Taboos

The fishermen perform some rituals before starting fishing in the rainy season and also they observe some meal taboos on certain days and occasions. The Muslim fishermen of Belala (Mahimal) organize a ritual, to offer some auspicious dish in the name of Allah either at home or in the mosque before they set out to catch fish in the rainy season (April to September). On the occasion, the fishermen distribute sweets among the children of their village. Similarly, the Kaivartya of Kalyanpur and the Patnis of Devadwar worship Kalki Narayan (a Hindu God) before they start fishing. It is believed that the ritual performed will bring them greater fish catch than they desire.

The fishermen, particularly the Kaivartya and the Patni are mostly followers of Sri Sri Thakur Anukul Chandra Paramhansa. Therefore, they abstain from non-vegetarian meal on Friday. Besides, during the periods of some worship such as the *Kartik Puja*, *Laxmi Puja*, *Bipadnashini Puja*, *Chaitra Sankranti* (last day of *Chaitra* month of Bengali calender), they take vegetarian food only.

The Fishing Cycle

As the fish resources are regularly converted from CPR to PPR and vice versa the fishing follows a cycle of activities in a year. It is being discussed below :

From April 1 to July 15

Generally, during the period, the rainfall starts and low-lying area of the beel undergoes the rain water. The SFCSL bans the CPR fishing as this is the prime breeding season for the fishes. During the period, no one is allowed to fish in the beel. Besides, the Government of Assam also restricts fishing in the period. According to Assam Fishery Rules 1953, no fishermen can use the nets having the mesh size less than 7 cm. from 1st April to 15th July and nobody can use the bamboo made traps having the size less than 2.7 sq. inch. For promoting the fishery movement (Blue Revolution) the Government of Assam has banned for the whole year using of mosquito nets of the mesh size less than 1 cm. If anybody is found violating the ban, the SFCSL will debar him from fishing in the beel for the entire season. At the same time, the violation of Government rules is also seriously punishable as per the law.

July 16 to September 30

Generally, it is the golden period for the fishermen to collect big fishes. Owing to the fishing ban in the preceding months, the fishes have grown in big size. Approximately 20 tonnes of fishes are caught daily during the period.

September 15 to November 15

In the period, gradually, water recedes. Therefore the quantity of fish catch also comes down to one and half ton daily.

November 15 to February 15

During the period, the beel water remains logged in a few pockets and the CPR fish collection falls steeply. The fishermen used only the *ural jal / Jaki jal* (Cast net) for catching *Koi* (Anabus testudineus), *magur* (clarius batrachus), etc.

From February 16 to May 15

This is the lean season for the Shonebeel fishermen as the CPR fishes are generally collected only by half a ton per day from the rivulets, channels and small communual ponds. However, the PPR fishes are collected on an average of about 1.5 tonn per day.

Fish Marketing

There are some permanent fish markets for the Shonebeel's CPR and PPR fish products; namely. (i) Fakuagram, (ii) Kalibari Bazar, (iii) Kudali, (iv) Chwak Bazar and (v) Devadwar.

Besides, some temporary markets also come up during the rainy season; namely, (i) Nagendra Nagar fish market, (ii) Ramkrishna Nagar, (iii) Karimganj, (iv) Anipur, (v) Bazarghat, (vi) Patharkandi, (vii) Eraligool, (viii) Silchar (Cachar), (ix) Lala (Hailakandi), (x) Dharma Nagar (Tripura state), (xi) Kailasahar (Tripura state). When the water recedes, these temporary markets also shift their venue accordingly.

According to the nature of periodicity and location these markets are classified as follows :

I. Permanent Whole Sale Markets
   (i) Fakuagram Fish Market
   (ii) Kalibari Bazar Fish Market
   (iii) Nagendra Nagar Fish Market
   (iv) Devadwar Fish Market
   (v) Kudali Fish Market

II. Temporary Markets
   (i) Govind Ganj Market
   (ii) Bazarghat Market
   (iii) Baruala Bazar Market
   (iv) Kirtikona Tea Garden Bazar Market
   (v) Anandapur Market
   (vi) Eraligool Market

III. Outside Markets
   (i) Ramkrishna Nagar
   (ii) Anipur
   (iii) Patharkandi
   (iv) Nilambazar
   (v) Silchar (Cachar)
   (vi) Karimganj town market
   (vii) Hailakandi town market
   (viii) Lala Bazar (Hailakandi district)
   (ix) Dharma Nagar (Tripura state)
   (x) Kailasahar (Tripura state)

Besides the markets many of the villages are covered by the fish traders who ferry their services door to door.

The nature of the markets accessible does have an impact on daily production of the CPR fish. Accessibility of market is a motivating factor among the fishermen to exploit the fish intensively and earn quick returns from it. Therefore, a quick look of daily CPR fish sale from June to August (SFCSL) in the whole sale markets can be taken here.

Table 4.2 : Daily Average CPR Fish Sale in the Whole Sale Markets (June to August)

Name of the Market	*Fish Sale (in tonns)*
Fakuagram Fish Market	5
Kalibari Bazar Fish Market	7
Nagendra Nagar Fish Market	2
Devadwar Fish Market	2
Kudali Fish Market	2
Total	18

Source : Records of the SFCSL, 2006

The data reveal that in the rainy season the whole sale markets receive 18 tonnes of fish daily. Of these Kalibari Bazar and Fakuagram markets receive two thirds of the fish. In the winter, approximately seven tonnes of fish are sold daily.

The marketing system of the Shonebeel is interesting. Just after catching the fishes, the fishermen bring it to the wholesale market. But generally they sell their catch on the boat itself to a first party of buyers. Generally, a fish trader touches a boat and becomes the first negotiator. If he has bought the fish, he would sell it to a second party. And the second party will sell it to a third party. Finally, the third party will sell the fish to the consumers. If this intermediate brokerage can be eliminated, the producers and consumers will get the real benefit of the fish sale. The brokerage increases the cost of the fish for no benefit of the fishermen and the consumers.

Fish Collection, Selling and Consumption

The fishermen collect the fish from the CPR and the PPR in different seasons in a year. A part of the collection they consume and the rest is the

CPR and the PPR fish collected, consumed and sold in the households of the Shonebeel villages in 2005 – 06 is given in the following tables :

Table 4.3 : Fish Collection in the Households of the Shonebeel Villages
(Percentage in parenthesis)

Sl. No.	*Name of the village*	*Sources of fish*		*Total (value in Rs.)*
		CPR fish (value in Rs.)	*PPR fish (value in Rs.)*	
1	Devadwar	10,400 (33.99)	4660 (34.47)	15.060 34.14)
2	Belala	9900 (32.25)	2720 (20.12)	12620 (28.60)
3	Kalyanpur	10,300 (33.66)	6140 (45.41)	16440 (37.26)
4	Total	30,600 (100)	13,520 (100)	44,120 (100)

Source : Field Survey conducted during January 2005 to December 2006

Table 4.4 : Domestic Consumption of Fish in the Households of the Shonebeel Villages
(Percentage in parenthesis)

Sl. No.	*Name of the village*	*Sources of fish*		*Total (value in Rs.)*
		CPR fish (value in Rs.)	*PPR fish (value in Rs.)*	
1	Devadwar	3420 (33.93)	2500 (60.98)	5920 (41.75)
2	Belala	3320 (32.94)	600 (14.63)	3920 (27.64)
3	Kalyanpur	3340 (33.13)	1000 (24.39)	4340 (30.61)
4	Total	10,080 (100)	4100 (100)	14,180 (100)

Source : Field Survey conducted during January 2005 to December 2006

Table 4.5 : CPR Fish Sale in the Households of the Shonebeel Villages
(Percentage in parenthesis)

Sl. No.	*Name of the village*	*Sources of fish*		*Total (value in Rs.)*
		CPR fish (value in Rs.)	*PPR fish (value in Rs.)*	
1	Devadwar	6980 (34)	2160 (22.9)	9140 (30.5)
2	Belala	6580 (32)	2120 (22.5)	8700 (37.9)
3	Kalyanpur	6960 (34)	5140 (54.6)	12100 (40.6)
4	Total	20520 (100)	9420 (100)	29940 (100)

Source : Field Survey conducted during January 2005 to December 2006

The table reveals that the CPR fish collection in the Shonebeel fishery has no significant variations. But in PPR fishery resources, it is seen that the fishermen of Kalyanpur collect nearly twice than that of Belala.

In case of domestic consumption, however, it shows there is no significance difference among the three villages in CPR resources. But from the PPR resources, the people of Devadwar consumed four times higher than Belala and nearly three times higher than Kalyanpur.

The table of selling of fish resources revealed that the people of Kalyanpur sold PPR fish more than doubled than that of other two villages.

THE FISHING PRACTICES IN THE BARAK RIVER

In the Barak river, the fishes are being exploited through out the year. The river Barak is used as a common property resource. Since the river is divided into several part fisheries, fish may be caught by the registered members of the Co-operative Society formed for that particular part or an individual who has been leased out their rights on the part. Each of the co-operative societies has jurisdiction over the specific part in which its members can catch fish. Each member of a particular society has a legal right to catch fish within the river's part allocated to the society.

Fish Typing

In the Barak river also the fishermen have locally typified various species of the fish. Availability of these species is represented various status levels. List of various species of fish found in the Barak river with the respective status.

Chart 4.3 : Fish Species in the Barak River Fishery

Sl. No.	Scientific Name	Availability	Local Name
1	*Ailia coila*	+++	Bashpata
2	*Aoirichthys aor*	+++	Aair
3	*Amblypharyn godon mola*	++	Moka
4	*Bagurius bagarius*	+	Bag
5	*Bengala elanga elanga*	++	Elong
6	*Catla catla*	+++	Katla
7	*Chanda nama*	+++	Chanda
8	*Cirrhinus mrigella*	+++	Mrigel
9	*Cirrhnus reba*	++	Lacho
10	*Eutropichthys vacha*	++	Vacha
11	*Gudusia chapra*	++	Chpila
12	*Hilsa ilisha*	+++	Ilish
13	*Labeo calbasu*	+++	Baus
14	*Labeo gonius*	++	Ghonia
15	*Labeo rohita*	+++	Rohu
16	*Notopterus chitala*	+++	Chital
17	*Notopterus notopterus*	+++	Kangla
18	*Ompok bimacunatus*	+++	Pabda
19	*Pangasius pangasius*	+	Fangus
20	*Puntius sp.*	+++	Puti
21	*Rita rita*	+++	Rita
22	*Wallago attu*	++	Boal

+++ represents common, ++ represents rare and + represents very rare.

Source : Das T 2001, A Study on the Limnology and Capture Fisheries of River Barak, M.Phil Dissertation, Assam University, Silchar.

Briefly, the type of fishing system in the Shonebeel fishing is different from the Barak river fishing. In the beel fishing both the CPR and PPR fishing practices are in operation while in the river fishery only the CPR fishing is being practiced.

Fishing Tools and Techniques

In the Barak river fishery, generally canoes are used. Most of the canoes are used by two individuals. The people of Radha Nagar and Netaji Nagar have taken the membership of the Central Silchar Fishery Co-operative Society Limited. In the river, they generally use *Kurar Jal, Shoral jal, Fash jal, Dekhi jal, Mahajal, Ber jal, Jaki jal, Larbarshi, Basta jal, Bash pata jal, Irer*

horon, etc. Besides, some traps are also used like *dori, roonga, cheepa, pharong* etc. in the tributaries or channels that fall into the river. The fishermen of Balighat also use the same type of fishing tools for catching fishes from their area, i.e., from Tarapur (Sarabpatty Ghat) to Jatingamukh.

Fishing Management

In Cachar district, the Barak river has been divided for fishing into 9 part fisheries called Jalkar fisheries. Each of the part fisheries is being controlled by a cooperative society or an individual lessee. For different types of nets, different amount is paid to the Society by a fisherman. Through these societies, the Government is collecting revenue. The Government generally invites tenders through the Deputy Commissioner, Cachar District, from the Societies or individual(s) to lease out the river's part fisheries for three years. The payment may be made annually by the lessee. But the lessee has to pay 25% of the annual amount at the time of bid purchasing while the rest of the amount has to be paid in quarterly installments. Failing to pay the amount of the first quarter installment, a notice will be served to the Society (lessee) by the Government. If the Society (lessee) fails to clear 2nd, 3rd, and the final, i.e., 4th instalment, each time a notice will be issued. Then, a final notice will be served to the lessee. Thereafter, the Government will have the right to re-allocate that part of the river to other lessee or individual(s). After purchasing the part fishery, the lessee (society or individual(s)) allows its member fishermen to catch fish under the area of its jurisdiction. The Society collects revenue from the individual fishermen as per the type of the nets used by them.

No. 3 Barak Jalkar Fishery stretching from Lakhipur to Sonaimukh is coming under the control of Dilkush Fishery Co-operative Society Limited.

From Sonaimukh to Krishnapur, the river part has the No. 4 Barak Jalkar Fishery while from Krishnapur to Betukandi part has the No. 5 Barak Jalkar Fishery. The No. 4 and No. 5 Barak Jalkar fisheries have now no fishing zones as the parts of the river for these fisheries have been taken by the Government for River Dolphin Project. From Betukandi (Mahisharkara point) to Tarapur (Sarab patty Ghat point) there is the No. 6 Jalkar Barak Fishery. This part of the river has been under the control of the Central Silchar Fishermen Co-operative Society Limited. From Sarabpatty Ghat to Jatingamukh, the river part is the No. 7 Barak Jalkar Fishery, under the control of Machimpur Fishery Co-operative Society Limited till 2006-07. but from the year 2007-08 this fishery has been bagged by an individual, Islam Uddin because the Society fail to pay the requisite installments regularly. This society remained a long time defaulter for not paying the requisite instalments of its tender value to the Government. As a result, the Government has cancelled the tender with this Society and has leased it out to an individual fisherman – Islam Uddin who controls the fishing activities in this Jalkar Fishery of the river. From Jatingamukh to Ghagramukh, the No. 8 Barak Jalkar Fishery is also being controlled by an individual named Mukkabir Ali. After Ghagramukh to Siddeswar, the No. 9 Barak Jalkar Fishery is being controlled by the Fulbari Fishery Co-operative Society Limited. From Siddeswar to Katagang is the No. 10 Barak Jalkar Fishery which is also being controlled by an individual fisherman named Ranu Ram Das. Again from Katagang to Haritikar, No. 11 Barak Jalkar Fishery has been allocated to an individual named Altaf Uddin. Of these Jalkar fisheries two have been undertaken for the present study. Number 6 Barak Jalkar Fishery under the control of Central Silchar Fishery Co-operative Society Limited is being

exploited by the Kaivartya (Radha Nagar) and the Patni (Netaji Nagar) whereas the Mahimals (Balighat) are catching fishes in the zone from the Sarabpatty Ghat to Jatingamukh constituting the No. 7 Jalkar Fishery.

In the rainy season, the Barak river receives various species of fish from its tributaries as well as from private fisheries. The fishes are actually migrating from the upstreams as well as from the lower streams. During flood, many varieties of fish are entering the Barak river from private fisheries also. Besides, the huge water quantity provides a good niche for different species of fish.

In Barak river also, officially fishing is banned during the breeding season, i.e., from 1st April to 15th July. However, non-officially, the fishing is widely practised throughout the year.

The fishermen of Netaji Nagar (Patni) and Radha Nagar (Kaivartya) are registered under the Central Silchar Co-operative Fishing Society Limited which covers the area from Mahisher Kara (Betukandi) to Sarabpatty Ghat (Tarapur). The Mahimal of Balighat, on the other hand, catch the fishes under the Machimpur Fishing Co-operative Society Limited whose area covers from Sarabpatty Ghat to Jatingamukh constituting the No. 7 Barak river Jalkar fishery. Due to non-payment of the Government revenue, these society lost its fishing rights and thus the government has sold again the fishing rights in it to an individual lessee – Islam Uddin.

The fishermen of Netaji Nagar and Radha Nagar are registered under the Central Fishery Co-operative Society Limited (No. 6 Jalkar Fishery). Under this Society, there are presently 254 fishermen enrolled. On the other

hand the fishermen of Balighat are enrolled under the Number 7 Jalkar fishery of the Barak river which is managed by the Machimpur Fishery Co-operative Society Limited. In this Society, 194 fishermen are registered members. Barak river is connected with various streams to Boula haor. The fishermen believe that during floods, the fish make their niche in silent zones of Boula haor. During the winter, the fish are again migrating to the Barak river from the Boula haor. Thus, there are two ways of getting the fish from Boula haor to the Barak river and vice-versa. Earlier, the stock of fish was very good in the river. About 3 kg. of fish could be caught daily even a decade ago but now the daily catch is less than 1 kg. This is due to various factors. First, additional fishermen are now catching the fish in the same area. Secondly, even in the breeding season, the fish are being caught by the fishermen. Thirdly, though there is an official ban to catch fish by using small mesh nets, fishermen are widely catching the fishes with such nets resulting into reduction of the fish stocks in the river. Mostly the fishermen are catching vacha (*Eutropicthys vacha*), in the winter and ilish (*Hilsa ilisha*) in the rainy season. These particular fish species available in the Barak river seasonally.

In the river, generally the revenues are collected by the society as per the type of nets used by the fishermen while the Government is collecting revenue by selling the river part / Jalkar fishery to the society. The revenues for the different jals / nets used by the fishermen are given in the following chart:

Chart 4.4 : Different Jals/Nets Used by the Fishermen of Barak River

Sl. No.	*Local Name of the Nets*	*English Name of the Net*	*Amount in Rs. / Annum*
1	Kona Jal	Bag Net	500.00
2	Holar Jal	N. A.	400.00
3	Ilisha-Kangla Jal	Purse Net	1000.00
4	Maha Jal	Siene and Drag Net	3000.00
5	Irer Horon	Ire Jal	800.00
6	Shoral Jal	N. A.	200.00
7	Bosta Jal	Bag Net	900.00
8	Fash Jal	Gill Net	900.00
9	Ber Jal	Drag Net	1200.00
10	Dekhi Jal	Drift Net / Lift Net	700.00
11	Bashpata Jal	N.A.	200.00
12	Ural Jal	Cast Net	500.00
13	Lar Barsi	Hooks and Lines	200.00
14	Ghan Jal	Fine mesh Net	1000.00

N.A. : Not available

Source : Field Survey Conducted during January 2005 to December 2006

Mostly the types of fishing gears/nets/jals used by the fishermen of the Central Silchar Fishery Co-operative Society Limited in the Number 6 Jalkar Fishery and those fishing under the individual lessee in the No. 7 Jalkar Fishery are given in percentage in the following table :

Table 4.6 : Nets/Gears Used by the Fishermen in No. 6 and No. 7 Jalkar Fisheries in 2004

Sl. No.	*Fish Gears/ Nets / Jals*	*No. 6 Jalkar Fishery*	*No. 7 Jalkar Fishery*
1	Cast Net	100	52.94
2	Purse Net	54.55	70.59
3	Gill Net	36.36	52.93
4	Fixed Net	9.09	17.64
5	Scoop Net	9.09	17.64
6	Siene	14.23	21.26
7	Siene and Dragnet	0	2.1
8	Rod and Line	18.18	35.29
9	Irer Haron	24.23	14.15
10	Basta Jal	2.39	4.12

(Source : Dutta, N. 2004, A Study on the Water Quality of River Barak in Relation to Urban Industrial Impact, M.Phil Dissertation, AUS)

The table reveals of various types of Jals in the Brak river. As these jals are made of synthetic monofilament yarn, they can trap even seeds and small fish.

Fishing Rituals

The fishermen of Netaji Nagar (Patni) and Radha Nagar (Kaivartya) observe almost the same rituals as observed by the Patni and the Kaivartya of the Shonebeel fishery before setting out for fishing. They also worship Kalki Narayan once a year for a good fish catch. Similarly, the Mahimals of Balighat also arrange a Shinni as done by the Mahimal of Belala in Shonebeel.

Fish Marketing

There are some permanent fish markets for the Barak river's CPR and PPR fish products; namely; (i) Rongpur, (ii) Malugram- Itkhola, (iii) Fatak Bazar, (iv) Machimpur – Arunachal, (v) Salchapra and (vi) Tarapur. Besides, some temporary markets are also found where the fishes are sold. The temporary markets are : Madhuraghat, Dudhpatil, Kathalala, Sheikhapara, etc. When a large quantity of fishes are caught it is generally sold in Fatak Bazar (whole sale market) of the Silchar town. The marketing system of Barak river is similar to the Shonebeel fishery. The fishermen sell their catch to the fish trader who finally sells it into the different markets.

Fish Collection, Consumption and Selling

The fishermen in the households of the Barak river villages also collects the fish from the river (CPR) and they are own ponds (PPR) and consume a part of it in a year. The rest is sold in the market. The value of the fish collected, consumed and sold by the villages is given in the following tables.

Table 4.7 Fish Collection in the Households of the Barak River Villages (2005 – 06)

(Percentage in parenthesis)

Sl. No.	*Name of the Village*	*Sources of Fish*		*Total (Value in Rs.)*
		CPR Fish (Value in Rs.)	*PPR Fish (Value in Rs.)*	
1	Netaji Nagar	9930 (43.9)	2040 (27.57)	11970 (39.9)
2	Radha Nagar	5170 (22.9)	4020 (54.32)	9120 (30.7)
3	Balighat	20570 (33.2)	1340 (18.11)	8810 (29.4)
	Total	19800 (100)	7400 (100)	29970 (100)

Source : Field Survey Conducted during January 2005 to December 2006

Table 4.8 Domestic Consumption of Fish in the Households of the Barak River Villages (2005 – 06)

(Percentage in parenthesis)

Sl. No.	*Name of the Village*	*Sources of Fish*		*Total (Value in Rs.)*
		CPR Fish (Value in Rs.)	*PPR Fish (Value in Rs.)*	
1	Netaji Nagar	5930 (60.08)	350 (25.93)	6280 (55.97)
2	Radha Nagar	2070 (20.97)	650 (48.14)	2720 (24.24)
3	Balighat	1870 (18.95)	350 (25.93)	2220 (19.79)
	Total	9870 (100)	1350 (100)	11220 (100)

Source : Field Survey Conducted during January 2005 to December 2006

Table 4.9 CPR and PPR Fish Sale in the Households of the Barak River Villages (2005 – 06)

(Percentage in parenthesis)

Sl. No.	*Name of the Village*	*Sources of Fish*		Total Value (in Rs.)
		CPR Fish (Value in Rs.)	*PPR Fish (Value in Rs.)*	
1	Netaji Nagar	4000 (31.50)	1690 (27.9)	5690 (30.3)
2	Radha Nagar	3100 (24.41)	3370 (55.7)	6470 (34.5)
3	Balighat	5600 (44.09)	990 (16.4)	6590 (35.2)
	Total	12700 (100)	6050 (100)	18750 (100)

Source : Field Survey Conducted during January 2005 to December 2006

The table reveal that the people of Netaji Nagar and Radha Nagar collect more fish than those of Balighat. The people in Balighat are adopting new occupations by commuting to Silchar town while those of other two villages

are still large engaged in fishing. Radha Nagar has so many PPR ponds and therefore it is earning more from PPR ponds while ZNetaji Nagar has more income from CPR fish. Consequently, their domestic consumption and sale of fish patterns are determined by the fish collection pattern.

Thus, in the Shone beel fishery, the nature of CPR and PPR fish collection is different from that of the Barak river fishery. Due to the environmental situation, the beel fishery is converting from CPR to PPR and vice versa while in the Barak river fishery only the CPR type of fishing is practised by the fishermen round the year. The PPR type of fishery is found only in their villages. For practicing the PPR fish, they have to make ponds, tanks, etc. of their own. In these ponds they cultivate PPR fishes. But in the beel, when the water recedes they apply some innovative techniques by digging called *gata* where the flood water is stored for many days whereby they practice PPR type of fish. Besides, some of the villagers have the ponds which are kept well protected by the nets and just before the heavy showers (which creates flood), they pick up all the fishes and sell them in the market.

To sum up one finds that the method of fishing in the Barak river is somewhat different from that in Shonebeel fishery. Generally, in the Barak river, a member fisherman can catch the fish only under their specified zone, i.e., the zone or the part which is concerned to a society or individual under whose fishing rights the fishermen exploit the fish. The procedure of acquiring membership is the same as in the Shonebeel's SFCSL. In the Barak river, the member fishermen deposit their requisite amount to the Assam Co-operative Apex Bank Limited, Silchar Branch, in favour of the lessee concerned. But in the Shonebeel, it is observed that a fisherman has a legal right to catch CPR

fish from anywhere in the beel, though they generally prefer to catch from their own localities whereas in the Barak river one can catch the fish from a part of it wherein one is registered. Besides, the fishing goes round the year in the Barak river fishery while in the beel fishery the CPR fish is caught only during the floods. In case of the beel fishery, the Government is interacting through the Assam Fishery Development Corporation (AFDC), Guwahati, but in the Barak river fishery, the Government is intervening in the fishing process through the Deputy Commissioner, Cachar.

Officially, in both the fisheries fishing is banned in the breeding season but in both the cases, violation of the ban is going on. In the river fishery, most of the fishermen are using small mesh nets in comparison of the beel fishery. As is done by the SFCSL in the Shonebeel every co-operative society of the Barak river fishery will hold a meeting every year before the fishing is undertaken. Generally, it is held before the rainy season. Only the members of the concerned societies will be present. All the members of the concerned society will express their views regarding the fishery, using of fishing gears, traps, canoes, boats, etc. The amount will also be fixed in that meeting for the year about the using of types of fishing gears and also the amount of revenue paid by the fishermen at a time or through installments. The type of nets, jals, gears used in the Barak river fishery are similar to those in the Shonebeel fishery. The differences are widely found only in using of the different kinds of traps. In the beel, the scope of using the traps is maximum whereas in the Barak river a few traps can be used only in the channels and small tributaries. Besides, canoe stealing, net stealing, etc. are also responsible for generating conflicts among the members of the same group or with the other groups. In

the Barak river fishery also, various types of conflicts, problems, disputes arise related to abuse of gears, encroachment of other's fishing rights, etc. All these are generally settled by the societies. But both the fisheries are not indicating any sustainable development of resources and the communities. The resources are depleting and the communities are adopting new strategies for survival.

REFERENCES

Dutta, N. 2004 **A Study on the Water Quality of River Barak in Relation to Urban Industrial Impact**, M.Phil Dissertation, Deptt. of Ecology, Assam University, Silchar,

Das, T. 2001 **A Study on the Limnology and Capture Fisheries of River Barak**, Assam, M.Phil Dissertation, Deptt. of Ecology, Assam University, Silchar.

Jodha, N.S. 1994 **Common Property Resources and the Rural Poor**, In : Ramchandra Guha (ed.), Social Ecology. Delhi : Oxford University Press.

Kar, D. 1984 **Limnology and Fisheries of Lake Sone in Cachar District of Assam (India)**, Ph.D. Thesis Report. Guwahati University. Pp. 197 – 201.

Kar, D. 2006 **Fundamental of Limnology and Aquaculture Biotechnology,** Daya Publishing House, Pp. XVI + 609.

Tapadar, N.I. 2008 **Pakkhi Nidhan Rukhte Hailakandite Joor Tatporota, Shonebeel-e-duti Vishal Jal Uddhar**, Dainik Yugoshankha : A News Daily, December 12, Silchar.

***