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**Building Government-Non-Government Organization-Fisher Partnerships for Fisheries
Management in Bangladesh**

Stream: Fisheries

Discipline: Institutions/Organization

1. Introduction

There are about 13,000 waterbodies (jalmohals) of different sizes (including rivers, canals, haors, baors, and beels) in Bangladesh which are used for openwater fisheries. Common property resources such as fisheries are a significant source of subsistence and livelihood, especially for poor people in developing countries. The term common property resource covers resources used by individuals under a variety of property rights arrangements, in the Bangladesh context these fishery resources are beels (lakes) and flowing rivers, which in 1995 became free access resources without specific conservation arrangements. The poor, although often regarded as the proximate agents of resource destruction, are also usually its first victims and thus have a major stake, perhaps more so than other users, in the management and conservation of resources (Capsitrano *et al.* 1997).

1.1 *International context of community based fisheries management*

Increasing attention has been focused since the 1980s on common property resources, including fisheries. This has included studies of traditional management systems, and work to actively develop greater community participation in fishery management. As a reaction to past failures of

central government management of fisheries, government and non-government organisations have worked to promote both overall co-management by fishers and government, and local community based management. Much of this work has focused on coastal resources, including fisheries, in a wide range of countries; but there are also important inland common property fisheries.

Sugunan (1997) recently reviewed fisheries in "small waterbodies" (up to 1000 ha) in seven countries. Although this focused on closed waterbodies suitable for stocking, it is directly relevant to Bangladesh where most inland fisheries are within this size range, although they form part of larger open systems. Sugnan found community waterbodies to be important in Zimbabwe, Northeastern Thailand, Northeastern Brazil and some parts of Mexico. In many cases these waterbodies had a history of common property and traditional access arrangements for associated communities. Government interventions varied from total state ownership in Cuba, to public ownership and licensing or auctioning of fishing rights in reservoirs etc. to cooperatives in India and Sri Lanka.

In Zimbabwe and Brazil there have been initiatives to develop participatory management of common inland fisheries based on conservation and sustainable development and equitable sharing of resources in the community. This paper describes a similar initiative in Bangladesh, which is notable given the great importance of inland fisheries to much of the 120 million population. Through local community management experiments under this, and other projects, it is hoped to direct public policy towards workable co-management arrangements.

1.2 Past fisheries policies in Bangladesh

Fisheries in pre-colonial Bangladesh were traditionally managed as common property resources through complex systems of tenure evolved in and enforced by local communities. During the colonial period, however, laws passed by the British to maximize state revenue generation gave zamindars (feudal lords) proprietary rights of use, management, and exclusion over water bodies within their estates. The zamindars collected a nominal tax in exchange for use rights to the fisheries which served in effect, to regulate entry and harvest within sustainable limits. When the East Bengal State Acquisition and Tenancy Act of 1950 abolished the zamindari system, the majority of the country's open water bodies reverted to the state. The Ministry of Lands (MOL), one of the most powerful government agencies in the country, currently has authority and proprietary rights over these state-owned water bodies. (Capistrano *et al.* 1997).

The basic mechanism for managing the fishery resources in inland openwaters of Bangladesh has been allocation of fishing rights through periodic leasing. Traditionally, the Ministry of Land leases out waterbodies for terms of one year or three years depending on the type of waterbody through the office of the Deputy Commissioner in each District. In this system the waterbodies are leased out for a specific period of time to the highest bidder, and naturally it is not possible for the poor fishers to lease fisheries. Some waterbodies are leased out to fishers cooperatives in name, but actual benefit goes to the influential fishers or some rich moneylenders. The poor fishers are obliged to work for the lease holder under inequitable conditions. Moreover, since the lessee's attitude is to get the maximum financial benefit from the fishery during the specific lease period, they do not think about conservation of fish.

To overcome these problems, the Government of Bangladesh introduced a New Fisheries Management Policy (NFMP) in 1986 with a view to: diverting the maximum benefit to the genuine

fishers; ensuring the sustainability of the fish stock through implementation of the 1950 Fish Conservation Act; and limiting exploitation to the maximum sustainable yield level. The main idea in the New Fisheries Management Policy was the gradual abolition of leasing fisheries by open auction, and replacement with a gear specific licensing system.

Accordingly, the new policy was introduced in 10 selected waterbodies covering rivers, haors, and baors in different areas in Bangladesh and the management responsibility was given to the Department of Fisheries (DOF) under Ministry of Fisheries and Livestock (MOFL), and this policy was then extended to 264 waterbodies. In the new system gear specific licenses for a particular fishery were issued to "genuine fishers" (full time fishers). The Thana Fisheries Officer was responsible for collection of fees and was accountable to deposit this with the Government. The success of NFMP was indicated by Chowdhury (1993) who showed significant gains in sites where new management was practiced. The share of total returns from fishing going to fishers had increased from 25% to 50%. In a few fisheries, under the Improved Management of Openwater Fisheries (IMOF) project, NGOs and Fishery Officers were jointly involved with the programme to organize the fishers and to provide technical assistance to the fishers. But in 1995 the Ministry of Land abolished leasing in flowing rivers, and licensing in all the sites which were previously under NFMP (except for some which were under long term projects which retained licensing). Subsequently rivers became free access resources with neither revenue requirements nor fishing restrictions, while most beels are leased out.

In the face of these confusing policies under which all forms of fishery property right now coexist, the Community Based Inland Openwater Fisheries Management and Development (CBFM) Project aims to guide formation of consistent policies through local grass root initiatives. The aim is greater efficiency, equity and sustainability in inland openwater fisheries. The CBFM Project is devising and testing models for enabling stronger organizations of fishers which, by representing all the different interests in a fishery, will be better able to establish and ensure compliance with community agreed fishing access rules. In this, it is in marked contrast with the most recent experiment of free access in fisheries management in Bangladesh.

Based on past experience, the project is testing models of enhancing community participation in managing different types of waterbodies through government (Department of Fisheries) working with five NGOs (BRAC, Proshika, Caritas, CRED, and Banchte Shekha) each with their own approach. The fisheries where the CBFM Project is working range from 16 ha. to over 1000 ha. or over 15 km. of river, the communities using these fisheries vary in size and may cover 20 or more villages. Accordingly there is a wide and diverse community of stake holders, including professional fishers and many poor people who depend on fishing for the animal protein in their diet.

This paper discusses experience gained so far in different types of waterbody in empowering local fishing communities, and the process of building partnerships involving Government (GO) and Non-Government Organization (NGOs) and Fishers for this purpose.

2. Community Based Fisheries Management (CBFM) Project Overview

2.1 Objective

The over-all objective of this project is to develop a framework for user-based (i.e., community

and group-based) fisheries management that would promote equitable distribution of benefits to those who are vulnerable in the community and ecologically sustainable use of Bangladesh's openwater and floodplain fisheries. The project objectives are to:

- C develop a framework for community based fisheries by testing alternative models of GO- NGO Fisher collaboration in fisheries management;
- C ensure more sustainable exploitation of openwater fish resources, including protecting natural recruitment of indigenous species to the fisheries for future generations;
- C promote equitable distribution of benefits from fisheries to community peoples;
- C provide alternative employment and income sources to people to reduce pressure on the fisheries so they are exploited more sustainably and incomes are increased during the lean season;
- C reduce illiteracy among fishers by providing adult literacy courses;
- C develop on integrated systems view of human community-fisheries resources relationship;
- C understand the role of the local institutions, traditional practices and ecological knowledge in regulating access to and patterns of exploitation of the fisheries; and
- C generate and disseminate policy relevant information to foster informed debate and advocate necessary policy change.

2.2 Location and types of waterbodies

Three categories of waterbodies: flowing waters (rivers), open floodplain depressions (*beels*), and semi-closed beels and oxbow lakes (*baors*) of different sizes from different areas in Bangladesh have been selected for the project (Fig. 1). The selection of waterbodies was made through coordination meetings between DOF and the partner NGOs followed by field visits to the proposed waterbodies. Mostly, NGOs selected waterbodies in areas where they were already working with general development activities.

In total 28 waterbodies, comprising 12 flowing rivers and 16 *beels* and *baors* (both open and closed) were proposed for the project, but the Ministry of Land has so far transferred only 10 waterbodies (*beels* and *baors*) to the Department of Fisheries. The proposed flowing rivers have not been given to the DOF, but the partner NGOs are working with these fishing communities to improve their lives. Each project waterbody has an individual character in terms of environment, fishery and community. Therefore a range of different management strategies are expected to be appropriate.

2.3 Partnership arrangements

In Bangladesh, establishment of private rights through leasing to individuals has been state policy for collecting revenues from public waterbodies, but it sacrificed social equity and resource protection. However, attempts to direct benefits to fishing communities without strong institutional support also met with failures. Subsequent initiatives of the DOF and NGOs came a long way to providing institutional support to poor users of resources and to establishing a partnership arrangement to achieve social, economic and conservation objectives (Ahmed *et al.* 1997). In addition, in the previous IMOF Project the purpose of the cooperation between Government and NGOs were to: increase participation of local users in managing and conserving the fisheries; utilize NGO experience in

human development, training and organization building; and create alternative or supplementary income opportunities in fishing communities (Ahmed *et al.* 1997).

The continued objectives of partnership development between GO-NGOs and Fishers are to facilitate the community utilizing resources more equitably, and to developed their capability for sustainable use through local management institutions involving GO-NGO-Fishers after the completion of the project. Fig. 2 indicates the general model of project activities and relations between partners, although the details are expected to differ between waterbodies, NGOs and communities.

The role of Government here is to give the user rights of waterbodies to the fisher community through a mechanism of handing over within the government system. The Ministry of Land has transferred waterbodies to the Ministry of Fisheries and Livestock for management by fishing communities for three years, with a condition that the fishers pay the government 25% higher taxes on the fishery in the first year than in past years, and for any extension of community management an evaluation is required. After that Ministry of Fisheries and Livestock (MOFL) says it will extend the hand over of waterbodies to the Department of Fisheries (DOF) though there is no specific commitment or timetable. The Department of Fisheries is responsible for handing over user rights to the waterbodies to the fishers through a Memorandum of Understanding (MOU) with the NGOs (which in this regard represent the fishers).

The Department of Fisheries is the main implementor for research activities, surveys, and overall project coordination. The NGOs have prime responsibility for assisting fishing communities to strengthen their organizations and to develop additional income sources. The International Center for Living Aquatic Resources Management (ICLARM) is responsible, in collaboration with DOF and participating NGOs, for developing research protocols and research implementation; institutional strengthening through training, conferences and workshops; and ensuring close linkages with DOF and participating NGOs.

The donor, Ford Foundation, has provided funds directly to each partner organization as separate grants for a partnership, thus removing financial dependence of any partner on another.

2.4 Vision

In the medium term, after NGOs and DOF have helped local communities and fisher organisations have been established and are managing waterbodies, in a successful CBFM waterbody the expectations are that:

- C Fishers will have been empowered to take responsibility for their waterbody.
- C Central and local government will have recognized the rights of the organized fishing community to manage exploitation of that resource.
- C There will be a representative fisher organisation or committee implementing a management plan agreed among the fishers and with DOF, the local administration and other water users. This body may or may not include other stakeholders.
- C Secure long term tenure over the fishery will have been recognised formally for fishers represented by this organisation and supervised by Department of Fisheries.
- C Agreements will have been reached between the organized fishers and other waterbody users to minimize conflicts.

- C Fishers' livelihoods will have been enhanced and diversified through NGO assistance.
- C The fishers will have access to credit at fair interest rates.
- C To conserve fish stocks, fair limits on fishing will have been established and policed by the fishers.
- C Measures to enhance fish habitats and stocks will have been planned and implemented by the fishers.

3. Overview of Project Activities

A series of preparatory workshops and meetings were held at the start of the project to design (jointly between GOB, NGOs and researchers) the working partnership arrangements, indicators of fisher participation, the research protocol, and then to plan the project site activities in detail. The DOF recognizes that NGOs are expected to have a comparative advantage in working with communities for their economic and social development. The NGOs provide livelihood, employment and income generating opportunities for both fishers and non-fishers which are designed to reduce pressure on fish and promote conservation measures. The NGOs are also mobilizing and strengthening fishing communities using the project waterbodies to empower them to manage resources in sustainable ways. They also take a lead in introducing mechanisms for more equitable access to fishery resources, and in particular assist and facilitate access of organized groups of poor fisherfolk to decision making over the waterbodies they use. Financial and technical assistance in the procurement and management of inputs are also provided by the NGOs.

During the project period various training programmes for the fishers were conducted by the DOF and NGOs (Table 1).

Table 1. Status of Beneficiary Training (late 1995 to December 1997)

Type of Training	Organization	Number of Courses	Number of Participants
Fisheries and CBFM	DOF	09	170
Organization Development	Proshika	154	3208
	CRED	02	40
Human Development	Proshika	170	3664
	Banchte Shekha	03	75
Basic Awareness	Caritas	25	739
	CRED	02	40
Leadership & Management	Caritas	20	560
Professional Skill Development	Caritas	18	455
Women Development	Caritas	05	148
	Banchte Shekha	02	50
Poultry & Livestock	Caritas	05	84
Account Keeping	Caritas	13	300
Follow-up	Caritas	07	189

So far Beel Fisheries Management Committees are functioning in nine *beels* and *baors*, one River Fisheries Management Committee is functioning and others are being formed. In some beels

there has already been success in enabling fishing communities to manage these fisheries, particularly through stocking of fish in semi-closed beels where the fish cannot escape and where the organized fishers have established exclusive rights over the fishery (Table 2). Even in more open beels the NGOs partners, in cooperation with local DOF staff and local elected leaders, have enabled fisher groups to form representative management committees which in one beel (Ashura), one floodplain (Goakhola-Hatiara), and one river (Arial Kha) declared their own sanctuary and achieved effective compliance. In addition cage culture and pen culture were introduced on an experimental basis in Kali Nodi and Arial Kha river respectively by two NGOs (Proshika and CRED) with community participation to test means for communities to enhance fish production and incomes in open waterbodies.

Table 2. Stocking and production of semi-closed waterbodies under CBFM project in 1997/98.

Waterbody	Area (ha)	Carp fingerlings stocked (kg)	Production (kg/ha)	Price value (Tk/kg)	No. of participants	Gross return (Tk per participant)
Shimulia Baor	32	6100	774	23.0	105	5,425
Krishnachandrapur Baor	28	5850	438	22.5	170	1,623
Dhum Nadi beel	76	1800	nh ^a	-	115	
Ruhia Baisa beel	10 ^b	3100	nh ^a	-	70	
Hamil beel	16	3600	803	41.0	137	3,845
Rajdhala beel	50	2000	290	28.0	89	4,562

^a nh = not yet harvested

^b re-excavated part of beel which is now a closed fishery separate from remainder of beel.

The partner NGOs are giving credit to fishers (Table 3), to develop alternative income opportunities for fishers and increase value added from fishing activities (for example through fish processing and trading), and to provide alternative sources of credit and so reduce the level of exploitation by moneylenders.

Table 3. Credit for Income Generating Activities disbursed by NGOs under CBFM project in 1997 (Tk thousand, Tk 45 approx equals US\$ 1).

Activities	NGO				
	Caritas	Proshika	BRAC	CRED	Banchte Shekha
Fisheries					
Boats and nets	190	2,481	-	-	-
Fishing	-	640	-	-	-
Brush pile	55	-	-	-	-
Fish drying & processing	5	13,648	-	-	-
Fish trading	34	288	361	-	-
Net making	-	622	-	-	-
Traps	-	265	-	-	-
Fish sanctuary	-	-	-	58	-
Culture based fishery inputs	208	90	321	222	-

Sub-Total	492	18034	682	280	-
Non-Fisheries					
Plant nursery	8	0	-	-	-
Small business	74	2,743	-	320	169
Livestock	2	155	-	-	-
Rice husking	25	42	-	-	-
Ecological Agriculture	-	2,785	-	-	-
Others	9	2,374	-	-	-
Sub-Total	132	8,099	-	320	169
Total credit	624	26,133	682	600	169
% for fishery related activities	79%	69%	100%	47%	0%
Number of NGO participants	1,144	3,596	450	225	175
Average credit per participant (Tk)	545	7,267	1,516	2,667	966
Interest rate	12%	18%	15%	16%	12%

Note: non-fisheries credit comprises credit given to fishers for non-fisheries activities as extra income sources (these are estimates in the case of Proshika).

4. Building Partnerships and Co-ordination

The project is developing a partnership between Government, Non-government organisations and fisherfolk to manage selected fisheries. The NGOs form groups of poor fishers. Coordination meetings are held at all levels between the partner organizations, and act as some sort of platform for partner organizations.

In order to have a better understanding and strong partnership development between Department of Fisheries (GO) and the national and local NGOs cooperating in the project (BRAC, Caritas, Proshika and Banchte Shekha and CRED) Memoranda of Understanding (MOU) were signed between DOF and the large NGOs and ICLARM and the smaller NGOs (which receive grants channeled through ICLARM). Regular co-ordination meetings have been held between the major partners (Table 4). The meetings have been effective in planning project activities and taking decisions. The steering committee is chaired by the Director General, Department of Fisheries, involves representatives from concerned NGOs, ICLARM, Implementation Monitoring and Evaluation Division (IMED), Ford Foundation and MOFL, and meets at six months interval.

Table 4. Co-ordination Meetings

Type of meeting	Lead organizations	Number
Steering Committee	Department of Fisheries	02
Central	Department of Fisheries	28
Field Co-ordination	Department of Fisheries	39
Community Meeting	Proshika	1261
Community Meeting	Caritas	1720

Project management coordination meetings are held each month by the Project Director to monitor and coordinate the overall activities of the project with the partner organizations. Field

coordination meetings have been held in all waterbodies where the Project is active. These meetings have involved District and Thana Fisheries Officers, the senior administrators of local government, NGO staff at regional and local level, DOF project staff, ICLARM staff, local leaders (such as Union Council Chairperson), and fishing community members. Meetings have been repeated at roughly four month intervals and are designed to give an opportunity for all concerned to understand the aims of the project and how it operates; to discuss problems; for the ideas and achievements of local people to be heard; and for possible new CBFM related activities to be identified.

As a follow-up to these meetings and to ensure local cooperation and coordination between the relevant Thana Fisheries Officers, local NGO staff, and DOF field staff local coordination meetings for each waterbody have been held each month. To help improve local partnerships, both DOF and NGO officers are empowered to supervise the day to day work of the DOF field staff of the project. Their workplans are developed in consultation with DoF and NGO staff, these fieldworkers are primarily responsible for monitoring surveys and for documenting the process of developing CBFM, and are also supervised by ICLARM.

In order to ensuring sustainable and equitable community based fishery management, the Department of Fisheries has extended its full cooperation with the partner NGOs. Initial differences between Department of Fisheries and NGOs have largely been overcome through local and central coordination. However, it has been a problem to obtain and retain rights over waterbodies from local powerful individuals and interest groups, including ex-leaseholders, landowners, and musclemen, often with high political connections. Such parties have claimed part or all of several of the fisheries so that they can continue to collect tolls from fishers. Attempts to combat this have only been successful where Government, NGO, and fishers worked together. In some cases local government has helped the fishers to prevent other people claiming land (for cultivation or fishing) within the waterbodies they possess, but the ambiguous situation in rivers has limited any formal assistance.

Lack of willingness of Ministry of Land to hand over waterbodies to the project has been the major handicap in implementing the project. DoF, NGOs, and the Ministry of Fisheries and Livestock have all cooperated to try to get waterbodies handed over to the project from Ministry of Land.

5. Partnership Experience

5.1 *DOF-Caritas-Fisher*

Caritas has been most active NGO in collaboration with Department of Fisheries in the project and is working in five waterbodies (Table 5).

Table 5. Waterbodies in partnership with Caritas

Water body	Type	Number of Beneficiary	Area (ha)
Ashura Beel	floodplain beel	448	300
Hamil Beel	closed beel	175	16
Rajdhola Beel	closed beel	89	50
Digshi Beel	floodplain beel	286	14
Ubdakhali nodi	river	246	58

In the four beels Beel Management Committees have been formed consisting entirely of representatives from different groups of fishers formed by Caritas. These committees are responsible for all development work in the beel. The development program has focussed on construction of a community center at each beel, stocking of fingerlings in the closed beels, and fish sanctuaries in the floodplain beels. To achieve this Caritas has given both financial and technical support, while DOF has provided logistic and moral support to the fisher community. With a view to sustaining the community initiatives Caritas has a phased plan whereby it will gradually withdraw its support to the groups which will retain their management committees, and which will belong to local federations of groups formed by Caritas which are registered as cooperatives.

Achievements and issues in partnership development include:

- C A good understanding among GO-NGO-Fishers has been developed, occasional conflicts between GO and NGO or among fishers have been overcome through coordination meetings.
- C In some cases conflict over leadership among the fishers groups has put back the flow of improved management in the beels, this was also mitigated through GO-NGO joint intervention.

5.2 DOF-Proshika-Fisher

In collaboration with DOF, Proshika (a large national NGO), is involved in eight flowing rivers (Table 6) for motivating fishers towards community based fisheries management; to organize fisher group; and to provide credit to the fishers with a view to reducing dependence on moneylenders and middlemen, and helping them establish extra businesses which might encourage them to reduce fishing effort or improve fish related incomes.

Table 6. Waterbodies in partnership with Proshika.

Water body	Type	Number of Beneficiary
Kali nadi	River	554
Titas Nodi (ka)	"	402
Titas Nodi (G-G)	"	177
Boyrala Nodi	"	37
Moisherkandi	"	442
Dhaleshwari Nodi	"	1731
Jari-Jamuna & Bachamora Nodi	"	133
Tetulia Nodi	"	131

In 1998 DoF and ICLARM took a lead in recommending that River Management Committees be formed in each river, these would consist of local administration representative, Thana Fishery Officer, Assistant Commissioner of Land, Union Parishad Chairmen, Fisher Representatives, and NGO Representative. The intention is to create a forum where the community can decide on measures to improve fishery management and obtain informal support from local government and the NGO. It is hoped that this will put local pressure on administration and elected leaders to support conservation measures such as restrictions on gears.

Examples of progress so far in these rivers include:

- C Proshika is disbursing credit to all group members. However, there have been difficulties as there is no clear identity to the participants and it has not been possible to identify which credit is going to fishers when some are in mixed groups of professional/traditional fishers and non-fishers (who may be subsistence fishers).
- C DOF is assisting Proshika to pressure local landowners and richer people to restrict construction of fish aggregating devices or brush piles (*katha*) in the rivers, as these are a means of excluding fishers from part of the river and the fishers are then employed to harvest them.

5.3 *DOF-BRAC-Fisher*

BRAC, the largest NGO in Bangladesh, had proposed to extended its co-operation to work with DOF under the CBFM Project for development of fishers and fisheries in 12 waterbodies, but is only prepared to start activities when rights over the waterbody have been assured for the target fishing communities by government since it aims to develop culture based fisheries in semi-closed and closed *beels* and *baors*. So far BRAC is working in four waterbodies since mid 1997 (Table 7).

Table 7. Waterbodies in partnership with BRAC.

Waterbody	Area (ha)	Number of Beneficiary
Dhom Nodi Beel	76	115
Ruhia Baisa Beel	27	60
Shemulia Baor	32	105
Krishnochondro Baor	28	170

BRAC has experience in developing fisher management using stocking in *baors* with DOF

under a separate Beel-Baor Project funded by DANIDA. So far BRAC has organised groups and disbursed credit for stocking. Fingerlings have been stocked in two beels, namely Ruhia Baisa and Dhum Nodi, in collaboration of DOF. During stocking the fingerlings DOF, including the District Fisheries Officer, BRAC and the fishers were present and the size of the fingerlings stocked was checked, indicating that a good relationship has been developed with the NGO.

At the initial stage of the project the fishers in several of these beels raised objections to the involvement of BRAC. Since in three sites there was already a fisher cooperative managing the closed waterbody by irregular stocking. BRAC was seen as a threat to these organisations but a series of co-ordination meetings with Fishers/DOF/BRAC has settled down the relation in a working environment and convinced the fishers that BRAC is working to support the existing fishers (while reducing the influence or even excluding richer non-fishers who belonged to the cooperatives). In one beel the hindu fishing community with BRAC support has been confident enough to resist attempts by non-fishers to grab part of the beel.

5.5 DOF-CRED-Fisher

There are several thousand local NGOs who are contributing to rural development in Bangladesh, CRED is one of these and was invited to work with DOF under the CBFM Project. CRED is working in 15 km of a flowing river, Arial Kha, and supports 225 fishers in its groups. CRED has formed a river management committee comprising local leaders and representatives of the fishers. This committee has set up a fish sanctuary in one part of the river (an area with brush piles which will not be fished and which the fishers have agreed to respect, and a pen has been constructed by three fisher groups in another part of the river where Thai Shar Punti and Silver Carp have been stocked for fish culture in the dry season (when the river level is low).

In comparison to other project sites, the non-fishing local community (leaders) and fishers in this site have shown keen interest to work together in the DOF-NGO-Fisher model (partly because the NGO concerned was created by some of the local leaders). Accordingly, an unique working environment has been created in this site. The fishers and non-fishers are happy to see a fish sanctuary and for the first time they came to know the positive effect of fish conservation measures. The fishers who fished in the sanctuary area are now fishing in other parts of the river, some of them are paid by the NGO to protect the sanctuary from poaching, and some have been helped to start pond aquaculture.

5.6 DOF-Banchte Shekha-Fisher

Banchte Shekha is a regional-local NGO which specifically targets poor and destitute women for its development work. Banchte Shekha is working directly with 175 female group members in Goakhola-Hatiara Beel, these hindu women are involved in free access subsistence fishing in private land in this seasonal floodplain beel. Banchte Shekha has organised groups and provides training and credit for additional livelihood sources. Despite targeting women, Banchte Shekha has been flexible and worked with DOF to form a beel management committee where its group members, male fishers and local leaders are all represented. The committee is responsible for conservation measures including managing operation of a sluice connecting the beel with a river. In the beel there are 85 *kuas* (ditches or

small ponds) where fish from the floodplain congregate in the dry season and which are then harvested completely by the owner. Banchte Shekha has paid for the rent of five *kuas* and the management committee arranged guarding of these *kuas* as sanctuaries for broodstock of floodplain-beel resident species. This *kuas* are being guarded by the male relatives of the group members. They have been able to protect these fish and agreed not to fish during the breeding season, the local council is helping to convince people from other villages not to fish in this beel.

6. Summary of Problems Encountered

Overall the main problems faced in developing community management of inland fisheries in this project have been with the status of waterbodies. The following problems were encountered:

- C Slow hand over of waterbodies from Ministry of Land to Ministry of Fisheries and Livestock and late implementation of inter-ministerial agreement.
- C Flowing rivers are now free access fisheries. There is no clear authority under the project for the community and DOF to prepare and implement fishery access and management plans.
- C Ministry of Land demanded a 25% increase in revenue from waterbodies handed over to poor fishers, then a 10% per year annual increment. This works against the project aim of benefiting poor fishers.
- C Rich people take control of part of fisheries by building *kathas*.
- C In most waterbodies both DOF and NGOs could do more to bring fishers together to agree on management actions, especially conservation of fish.
- C Fisheries are being lost/reduced through irrigation, cultivation, reclamation, and drying up of water.

7. Conclusion

At the community level, the interactions and activities through the GOB-NGO-fisher community partnerships have produced:

- C improved social cohesion amongst fisher groups through community-based work by NGOs;
- C increased participation of fishers in the planning and management of resources;
- C better relations between fishing communities and DOF and between DOF and NGOs;
- C increased sense of resource-ownership among fisher groups capable to become co-managers through skill building and greater participation in the resource management processes;
- C increased livelihood opportunities and human development;
- C an increased team-building spirit and sense of cooperation between government and NGOs through the issue raising and consensus meetings at the start of the project and through partnership development during the project; and
- C increased inputs into government policy and creation of support toward community participation in resource management (e.g. institution building for local level participation and

influence on new government projects to adopt a community based approach to openwater management).

The key stakeholders in fisheries are poor people who fish for their livelihood, they have a leading role to play in responsible fishery management. NGOs in the project work with groups of poor professional fishers, but subsistence fishers and richer stakeholders in fisheries should not be excluded from fishery co-management. Particularly in more open systems such as rivers it has proved difficult to find an appropriate forum or mechanism to achieve this within the working approach of the project. NGOs and government need to review this and co-operate to facilitate formation of wider community based fishery management organizations. To achieve this it is essential that the government give a clear commitment to devolve defined local fisheries management responsibilities to community bodies, otherwise there is a lack of incentive for all partners in the process.

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