Conference Paper 21

Access to Common Property Resources and Poverty Reduction: Inland Open-water Fisheries in Bangladesh

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ABSTRACT

In Bangladesh, experiences from good practices for a Common Property Resources (CPR) identified that it is necessary to choose CPR members from the resource users with clearly defined rights to use the resource with defined physical boundary. The long-term security of tenure is a precondition for establishment of common property resources in the water bodies by the users (mainly fishers and adjoining agriculturists of the water body) themselves. The sustainability of such CPRs depends on the equity in sharing expenses and income; monitoring by the users themselves; graduated sanctions for violations of CPR rules; and development of local forums for resolving conflicts.

INTRODUCTION

Bangladesh has a large number of government-owned water bodies (jalmohals) which have been the focus of a series of development projects over the last two decades. This paper is based on experiences from the IFAD funded Oxbow Lakes Project (OLP-2), Aquaculture Development Project (AqDP), and Sunamganj Community Based Resource Management Project (SCBRMP), but it also draws on lessons from other similar projects, like the Patuakhali-Barguna Aquaculture Development Project (PBAEP), the Fourth Fisheries Project (FFP) and the Community Based Fishery Management Project (CBFM-1 and 2). Together these projects have covered more than 200 water bodies and span a period of almost two decades.

All khas properties come under the Ministry of Land. But MoL does not directly deal with or manage these properties. There are three ways in which their management is dealt with:

- Devolution refers to the transfer of management responsibility and authority over the use of natural resources from the government to other agencies, specifically to non-government agencies.
- Decentralization refers to the transfer of management and authority to lower levels of government.
- Co-management is the system of sharing of responsibility and authority between government and non-government bodies, usually some form of organization of resource users.

There are a number of possible routes out of an open access system. One is to privatize the resource, make it the property of the lease-holder. Another is to turn it into a resource for government organizations to invest in. A third is to turn into a common property resource (CPR) of the fishers. Yet another is to turn it into the common property not of fishers, but of the community. All four methods have been tried in Bangladesh.

Longer-term leases and secure user rights, both necessary for the shift from capture fisheries to aquaculture or other forms of managed fisheries have become possible through a number of projects in Bangladesh. Of the various forms of management possible, which one is likely to have more of a poverty reducing effect?

MANAGEMENT APPROACHES

Before the GoB-IFAD-DANIDA-BRAC, OLP-2 (ox-bow lakes project 2) project, the World Bank undertook a project, OLP-1, for government management of some lakes. These lakes were withdrawn from the auction-lease system and placed under the management of the Department of Fisheries (DoF). Teams of fishers were appointed to carry out fishing, for which they were paid 40% of the value of the catch. This was a substantial improvement in fishers' share, which remained at around 25% in privately-leased lakes.

Budgetary constraints meant that funds for operating expenses, especially stocking in the government-run lakes was often inadequate, or not released on time. As a result private money was also used to carry out stocking, which was not shown on the books. The result was that the government-run lakes were both making losses in official accounts, while allowing a number of officials to earn quite large profits. Of course, the fishers did earn their 40% share of total fishing income.

Forms of decentralization have taken a new shape with co-management, where local government organizations join with the community in managing the resource. The involvement of local government, not as a facilitator, but as a co-manager, has disadvantages as it increases opportunities for rent-seeking.

The best example of the dangers of co-management was in the Third Fisheries Project. With fisheries and local government officials, and, of course, fish traders all involved in completely unregulated and unmonitored "stocking" paid for out of public funds. Unfortunately, this practice was repeated in the Fourth Fisheries Project. As a report pointed out, "… at Boro Beel,… it was widely believed that the stocking was considerably lower than officially recorded" (Aeron-Thomas, 2005, p. 4).

In co-management the resource use decisions are made not by the users, or even the so-called community, but by a negotiation process between the government (meaning its officials) and the users or community. In this negotiation, the balance is weighted in favour of the more powerful officials.

In any case the agendas of government and users may be quite different. As pointed out with regard to the Fourth Fisheries Project, "… it was almost inevitable, given DoF priorities, that 'growth' in production rather than a concern with equity would infuse project activities," (Saleha Begum, 2004, p. 6). Further,

since DoF is "driven by numerical targets the need to 'stock'1 over-rode the need to take time to form strong CBOs (Community Based Organizations) (Rapporteur's Report, 2005, p. 3). This is not unique to Bangladesh or to fisheries. It is common to government departments in other countries too. The experience of various co-management forestry schemes, often called Joint Forest Management, has shown that the agenda of the Forest Department, which is that of the maximization of timber growth rather than maximization of impact on the livelihoods of forest dwellers, invariably dominates the so-called Joint Forest Management committees. A study of numerous such sites in China, India and the Philippines, concluded, "…devolution policies in our case sites have reflected the conceptual frameworks and interests of foresters and, as a result, have disappointed local forest users with different expectations of devolution," (David Edmunds, et al, 2004, p. 166).

But, government departments and local government organizations have an important role in facilitating resource management by users. In various projects, government departments and officials have played key roles in facilitating transfer of water-bodies to fishers and in establishing their user rights. Technical departments, like DoF, have additionally important roles to play in disseminating technical knowledge. As a whole, government and other state organs, have to provide various kinds of public goods that are needed for the development of fishers and fisheries.

What is needed is for a division of responsibilities between government and fishers. As pointed out with respect to forestry, "… convergence [of interests between government and forest users] was more likely to occur where local people and government officials divided roles and responsibilities in ways that enabled local people to make their own day-to-day livelihood choices with a maximum of discretion, while the state provided support for these choices and controlled the quality of public good outputs," (David Edmunds, et al, 2004, p. 168). What may be counter-productive is for increased state involvement in fisheries in new terms, i.e. the terms of poverty reduction, just as forest departments around Asia now justify their intervention in terms of environmental protection rather than timber production targets (Guha, 2001).

While suggesting that the state should play an enabling (through appropriate legislation and decisions) and facilitating (supporting user groups to secure and establish user rights and medium- to long-term tenure), one should note that there is also a positive role for decentralization. Decentralization enables some types of decision-making to be brought geographically, even socially, closer to the affected people. However this does not mean that decisions will be taken in favour of the users. Given the domination of local elites, the opposite is more likely to occur. But the geographical closeness does make it more possible for the users, the CPR, to mobilize and try to influence local administrative

[1] The DoF need to 'stock', also coincides with the officials' need to maximize rent-earning opportunities.

decisions; while, when the decision are all concentrated at the district headquarters, or even at Dhaka, it would be very difficult for poor fishers to bring much influence to bear on those decisions.

Before the OLP-2 project there was a situation where a few lakes were being run under government management, with the usual problems of losses for the government exchequer, while the majority of the lakes were on auction-based, short-term leases. Stocking levels were very low in the leased lakes and most of them were in a derelict condition, overgrown with water hyacinth and other vegetation choking the water bodies. The limited benefits of lake fishing were disproportionately captured by the lease-holders, while the fishers got 25% of the catch.

The private monopoly of the lease-holder could have overcome the externality problem. But there was a problem of difficulty in or high-cost of securing user rights over all the residents of lake-shore villages. At the same time, the lake is not really divisible.2 But granting a private monopoly is not only difficult to enforce (though, it should be less so now than in the early 1990s), but would, as Partha Dasgupta (2005, p. 1611) points out, grant far too much power to one person. Further, and more important for our purpose it would have a limited effect on poverty reduction – as seen the fishers are likely to get 25% of the catch, albeit of an increased catch. This, however, does bring out the point that a managed resource, with investment of capital, is likely to provide some benefits to the fishers compared to a relatively unmanaged resource with little or no investment.

COMMON PROPERTY RESOURCES

In discussing common property resources (CPRs) it is necessary to make a distinction from “open access” systems. In open access systems there is no regulation on the persons who have access to benefits and the quantities that they can fish from the resource. In an open access system the fishers have no responsibility for maintenance of the resource. Even if access is granted only to particular persons (e.g. fishers, or members of an indigenous community) but if there is no restriction on the amount that each person can draw, then there is likely to be a degradation of the resource – if the technology permits a rate of extraction that is greater than the rate of regeneration of the resource.

One of the first requirements in setting up a common property resource (CPR) system is a specification of its members. Extraction should be restricted to a fixed number of users, chosen on the basis of some criteria. In choosing members of the user group there have been three different approaches. The first is that of making membership open to all those who belong to the relevant community. An example of this approach is the Fourth Fisheries Project (FFP). The second is

[2] That is until new, costly and risky technologies like cage culture are adopted.

that of restricting membership to those who participate in the relevant form of labour (fishing or forest products extraction); examples of which are OLP-2, AqDP and CBFM. The third is to combine fishers along with other users, e.g. agriculturists in the immediate neighbourhood of the lake who draw on its waters for irrigating their fields; as has been done in the SCBRMP and in MACH.

The Fourth Fisheries Project (FFP) experience of allowing any person, and not just fishers, in the relevant community, has been analyzed in FFP papers by Mark Aeron-Thomas (2005) and Saleha Begum (2004). These studies provide useful analyses of the problems faced when no distinction is made between fisher and non-fisher community members.

"For the first round (2000-1) of sites, no requirements were set by the project as to the composition of the FMCs (Fish Management Committees), except that they had to be made up of representatives of the VDCs (Village Development Committees). As the VDCs were open to all members of the community, rather than just professional fishers, their representatives were predominantly drawn from local elites. This meant that non-fishers were quickly and firmly in control," (Aeron-Thomas, 2005, p.24). The project responded by changing procedures for the second round (2001-2) of sites, with the VDC being replaced by a Fisheries Sub-Committee (FSC) in each village, and with a requirement that 75-80% of both committees and two out of three office bearers should be genuine fishers.

Non-fishers used their general dominance of local politics, and their ability to provide the capital required for stocking which shows is that it is important not only to specify the sections from whom members of the CPR will be drawn, but also to work out methods of providing access to capital, such that members can provide equal amounts, or equal shares, of capital to the CPR. This, as will be seen later on, is quite important for fishers to establish or retain control over the CPR enterprise.

It is generally better to form a group of the users (e.g. irrigators, fishers, forest users, etc.), rather than the general population of the area.3 There are a number of reasons for this:

- There are divergent interests between users and others.
- User groups have a common material interest in using and managing the resource, even, perhaps, sustainably.
- User groups would be more homogenous than the general population of the area.
- Both benefits and costs would be more transparent in a user group and the returns are likely to make participation worthwhile.
- They are more likely to be able to develop pro-CPR norms of social functioning.

[3] This draws on Harry Blair (1996).

The inclusion of only fishers can be attempted through a condition that membership is conditional on participation in fishing, say, for at least 75% or so of fishing days, as was introduced in OLP-2, and has since been adopted in most other projects. But even this is not fool-proof. In a situation where the fishers, are weak, there could be elaborate fictions to show that all members are participating in fishing, when that is actually not the case. But by restricting members to fishers it is at least possible to reduce the incidence of open domination of CPRs by the elite. In India, community-based aquaculture is also organized on the basis of “common interest groups” (Radheshyam, 2001).

At the same time, the phrase restricting members to fishers may itself need to be extended to include other poor or other relevant users. The first point arises when the number of fishers living near the lake is too few for a CPR. If it becomes necessary to increase the number of members, this could be done by including other poor, who are willing to learn and regularly participate in fishing. This, of course, will only be possible if the returns from fishing are somewhat more than the returns from the alternative, say, daily wage labour.

Another manner in which it could be necessary or beneficial for the CPR to extend its membership beyond fishers, is, for instance, that where the silted up portions of the beel, though registered as khas land, have been occupied by agriculturists. This has been done in both SCBRMP and CBFM, in the interest of getting more support for the CPR. Most of these agriculturists are quite small holders and there is a restriction that they can only make an equal contribution to the Beel User Group’s (BUG’s) finances. They cannot contribute more of the capital and thus claim more of the profits.

Establishing user rights of the fishers CPR over the resource is something that is difficult for CPR members to do on their own. They require support from the local administration and from the community around them. In one way or the other, the establishment and spread of a social norm that accepts the CPR on the water-body, is necessary for setting up and running a CPR. Without this social norm, which itself can be brought about through a number of attempts, each perhaps less conflict-ridden than the last, guarding would be too expensive and might make the water-body itself unprofitable to manage. Social fencing, through an accepted social norm, can considerably reduce the need for guarding, i.e. reduce the transaction costs and increase the return to invested capital and labour.

WOMEN IN FISHERIES

Although women generally do not get involved directly in fishing in most parts of Bangladesh, there are many stages of chain between boat and consumption where women are involved.

Starting with the well-known Mymensingh Aquaculture Extension Project there has been an increasing involvement of women in aquaculture. That project

showed that women, possibly because of their greater time spent in and around the homestead, are able to achieve higher productivity than men in household ponds. OLP-2 initiated a process of women acquiring user rights in ponds on khas lands, though it was often difficult for women to retain their control over these ponds, in the face of attempts of various politically stronger male groups to seize their ponds. AqDP successfully combined training in pond aquaculture with credit, to enable women to set up commercial fisheries in household ponds that had formerly been used for fish culture only occasionally and fitfully. In both CBFM and SCBRMP women have been playing a role in sorting fish and drying fish as a commercial activity.

Combining all these varied tasks within the fish value chain, and adapting a holistic view of this value chain, will enable making a policy for women's involvement in fisheries. SCBRMP has, for instance, decided that women would form 25% of members of the Beel User Groups (BUGs) and have at least one member in the Beel Management Committee (BMC).

Gender equality is both a goal of poverty reduction and an instrument for the same. Thus, when there is an attempt to link fisheries with poverty reduction and the PRSP, it is necessary to consider the manner in which gender concerns can be incorporated in the fishery sector, even in capture in open or semi-open water bodies.

CPR BOUNDARIES

In order to establish a CPR it is necessary to have a clear category of members who are entitled to participate and share in the use of the resource. It is also necessary to have a clear physical boundary, within which the CPR has the authority to manage the fishery. With lakes it is often difficult to set up such clear boundaries. The ox-bow lakes can be turned, with screens or embankments, into water-bodies that are closed for all practical purposes. But with beels in the haor region, such enclosure is not only difficult, but also not even desirable. The existence of mobile fish is essential to the productivity of these water-bodies. In the monsoon period, and until the lakes are more-or-less isolated from each other in the dry season, the whole haor is a single sheet of water. When management is restricted just to the beels, what usually happens is that CPR members guard against poaching in their own areas, and simultaneously go out to poach in other, possibly unguarded areas or in the open waters of the haor. This is especially so in the monsoon period when the fishers have no alternative work. This monsoon fishing is made even more destructive by the fact that this is the spawning period, therefore affecting the productivity of the fishery by a multiple of the fish caught.

The strong externalities within beels in a haor region (a vast flood-plain) makes it necessary to try and bring the whole haor within the management system. Only in that way will it be possible to internalize the benefits of managing the resource,

as, for instance, by making effective a ban on fishing in the spawning period. Thus, as both the MACH and SCBRMP projects have decided, it is necessary to bring under management “entire ecological and hydrological units to the extent possible” (MACH, 2002, p. 85)

ESTABLISHING USER RIGHTS

There has been one important effect common to all of the various development interventions. As compared to the situation in the early 90s, now there is an acceptance of the user rights of the designated lease-holder, whether it is a private individual, a fishers’ group, government department or the community. This, however, is so only for the more-or-less closed baors (ox-bow lakes). Not much of active guarding is needed. Or, when there is poaching it is not a matter of right, but one of stealing. It is not a coincidence that this has occurred in water-bodies where aquaculture has more or less replaced capture fisheries, and fish are the result of stocking and even fertilization with inorganic and organic fertilizers. There is labour and capital involved in all these activities, and not just in the catching of fish, as with capture fisheries.

In the open beels, which are only isolated from the floodplains in the dry season, there is much more guarding required. Again, it is not a coincidence that fishing in the beel is mainly a matter of capture fishery and only secondarily a matter of stocking, i.e. of investment of capital and labour in activities other than capture of fish.

Initially the transaction costs involved in investment in lakes were quite high and years were taken to establish these rights. In the early- to mid-90s OLP-2 it took years and a lot of labour in guarding to establish user rights. But at the time of the AqDP in this decade, it has neither taken as long nor required as much guarding to establish user rights. In a sense, the change in norms of access to resources, identified by Douglas North (2005) as the critical issue in development has, to some extent, been established with regard to leased lakes but this is not yet true in large parts of the flood plain, the haors, which are still regarded as open access. Fishers think nothing of guarding their own beels, but catching fish in the rest of the haor, or even in unguarded beels. Fishing in the haors or even beels is still often a matter of either stealth (fishing in a small boat that can pass unseen in the mist), or might (fishing or guarding with armed parties).

The establishment of user rights of the lessee, where they are fishers, has also become easier because of positive changes in attitudes of various sections of the government. In the early 90s, despite decisions in Dhaka on the handover of baors to the OLP-2, it was not an easy job to actually secure those transfers. There were various obstacles and negotiations at all levels of administration. But more recently, both with the AqDP and the SCBRMP projects, such handovers have become somewhat easier, once decisions are secured in Dhaka. In the SCBRMP sections of the local administration were also willing to quickly

intervene to resolve disputed claims and establish boundaries. All this has accelerated the process of securing user rights of the lessees, where they are fishers. Of course, there are still at times court cases to be resolved. And there are instances (e.g Raisha Beel) where the controlling group stated plainly that they had paid a large sum to the DC's office to secure the lease. But this is a far cry from the situation where there frequent obstacles at every stage4.

In their struggles against former lease-holders or other local elites, and in establishing the user rights of the CPR, fishers necessarily have to rely on an overall acceptance of these user rights by those living around the baors. If large numbers people who are not CPR members continue to catch fish, as they used to before the project, then the CPR members investing in stocking fingerlings would not get a return on this investment. Securing acceptance of the CPR's user rights is thus crucial to the success of the project.

This has been done through a number of channels. The first was to give user rights to the fishers and other poor living around the baors. Those who used to be the main persons catching fish were themselves made the owners of the fishing rights (as CPR members). Although the CPR could establish their user rights just through guarding to prevent others fishing, this would be very costly, whether in terms of their own time (if the CPR members act as guards themselves), or in terms of money (when guards are hired). In fact, any such change in access rights, turning what was formerly an open access system (either because there was no lease, or the lease was not rigorously enforced) into a managed CPR, depends crucially on social acceptance of the change.

Besides the CPR itself, an important factor in establishing user rights is the stand taken by local officials. Where local government officers, like UNO, or department officers, as of DoF or LGED, go to support the CPRs, and where there are visits from higher officials, then there is a demonstration of the measure of official support. This support is very important in gaining social acceptance of the fishers using the baor as their CPR. The NGO too plays a role, not only in organizing the CPR but also in showing its support to the CPR and helping them to negotiate with the local power structure.

The roads built by OLP-2 and AqDP right up to the fish landing centres at each baor have improved the local law and order situation. The clean environment of the landing centre and the lake waters make it a scenic spot. Many persons, such as college students, and officials and their families visit some of these baors on holidays. This too increases the social contacts of the CPRs and increases their social capital.

[4] There remains a problem of excessive lease charges for some water bodies. These often bear no relation to the productivity of the resource, but can be bid up by influential elites who then use the legal system to avoid making actual payments. In other systems wealthy individuals seem motivated to pay over the odds for a lease because of apparent status it confers.

What one can see is that empowerment, as the ability to bring about and sustain a change, is a combination of a number of factors. First, there is the handover of the baors to the CPRs. Second, there is the support for this change from officials. Third, is the acceptance of the general local population and their support. Numerous actions of the CPRs have helped bring about this general acceptance, even if these actions were not necessarily consciously aimed at achieving such acceptance. Finally, what counts in empowerment is the power of numbers, both in terms of the number of members and in terms of the amount of capital deployed in the baor as a production unit.

LEASING POLICY

The difficulty in establishing user rights when combined with the dis-incentive effect of short-term leases, further reduces the return from stocking or semi-intensive aquaculture. When lake fishing shifts from capture to semi-intensive (stocking, without fertilizer use) or intensive (stocking plus fertilizer use) some infrastructure is needed. Landing platforms are needed with connections to the main roads connecting to the markets, so as to be able to carry at a reasonable cost the high volume of fish to the market. Even if the government were to provide this infrastructure, with a short lease there would be no incentive to maintain or improve infrastructure.

Along with this infrastructure investment disincentive, short term leases encourage destructive methods of fishing. There is an attempt to fish out the lake at the end of every year. In the beels this has led to the particularly destructive method of de-watering to catch all possible fish. This reduces the numbers of breeding fish for the next season, leading, over time, to a fall in fish stocks.

Projects, like OLP-2, AqDP, SCBRMP, CBFM-2 and MACH have secured long-term leases, usually of 10 years at a time, but for up to 20 or even 50 years (as in the case of OLP-2).

CIRCUMSTANCES FOR A FUNCTIONING CPR GROUP

Management of a CPR is usually governed by an agreement between the members to cooperate in the managing of the resource and in sharing its benefits. The agreement, if not indefinite, is expected to last at least as long as the group has the lease or access to the resource. What binds the group together is that they have a joint lease over the water-bodies.

Under what conditions is such an agreement to equal sharing likely to last? This question is important given that some members could, at least for some time, break the agreement and corner a higher share of the benefits. Agreement can be kept if all parties discount the future benefits from the CPR at a low enough rate (Partha Dasgupta, 2005). Within this general situation of a low discounting of

future incomes from the CPR, there are a number of specific features that will promote cooperation.

Agreements are less likely to be broken when members care about each other, or have inter-dependent utilities; or, if they have a pro-social disposition however the fishing groups in most of the projects under consideration do not form a homogenous social group. They tend to be a mixture of traditional fishers and other poor, combining Hindus and Muslims and do not have a history of prior collective action. Breaking an agreement to equal sharing of returns is not likely to meet much or even any social ostracism.

Such a situation only reinforces the point that, where there are temptations to break agreements, because the returns are large, then there is a need for punishment for breaking the agreement. The enforcement of the agreement could be either through mutual enforcement by the members or through external enforcement. Mutual enforcement is of course the preferred alternative. If ordinary members could be counted upon to regularly monitor activities of the committee members, and make credible threats of sanctions for those breaking the norms, then it may be quite easy to keep CPRs functioning

Self-monitoring can be taken a step further by peer monitoring. This has been introduced in SCBRMP, where members from one Credit Organization (CO) audit the accounts of another CO. But besides having the knowledge to monitor, the members of the CPR also need to have the power to impose sanctions on those breaking the rules. This is easier said than done. Removing an errant member, or refusing to transact with him for one or a number of years, is not so easy, when the target is one who as a committee member is likely to have developed connections with power brokers in the locality, even if he did not already have them at the inception of the CPR – removing such a member is difficult. This can then lead to a situation where a new equilibrium is reached, wherein some get a higher share of the benefits than others (Partha Dasgupta 2005).

Why do the ordinary members settle for an unequal share? It must be that their benefits are still more than they could otherwise expect. "… even though the agreement is to share the benefits of cooperation unequally, both parties gain from cooperation" (Partha Dasgupta, 2005, p. 1618) and, thus, the CPR continues to exist, although with unequal benefits to members. While this is worse than the situation of a democratically functioning CRP, it is still likely to be better than a situation where there has been no history of a democratically-functioning CPR. In a sense, those trying to corner a disproportionate share of benefits, cannot just take their control of the CPR for granted but, instead, have to buy-off other members.

The biggest source of uncertainty in CPR management in Bangladesh is that of political or bureaucratic interference in the membership of the CPR management

group. Another possible deterioration can take place where persons from outside the group (local elite or officials) free-ride on the CPR and extract a large share of its income. A third possible deterioration relates to the necessity of raising working capital and stocking and other expenses. This usually results in tied transactions with fish traders and fingerling suppliers which will probably affect prices and quality. This can also result in collusion between the traders and the office-bearers of the CPR resulting in the effective takeover of the financial transactions of the CPR, as happened in some OLP-2 baors, after the withdrawal of BRAC from supplying credit.

The above example points to the importance of maintaining equal contributions of capital from each member, preferably through a formal credit mechanism. A CPR with unequal contributions is more likely to be taken over, by those who supply more or most of the capital required. This also leads to a corollary: a beel, where there is no or little stocking and thus capital requirements are also low, is less likely to be a target for takeover by financial interests, as compared to a baor, where stocking levels and capital requirements are both high.

THE ROLE OF NGOs

NGOs have played an important role in all of the CPR projects, except the SCBRMP. They have had two functions. One is to form and facilitate CPR groups. The other is to provide credit, usually as micro-credit to the members but meant for collective use by the CPR.

Credit for stocking is a form of working capital. Finance for stocking can be procured in either one or a combination of three ways. It can be provided by MFIs, or even commercial banks. It can be provided by fingerling suppliers or fish traders, usually the wholesale traders, arathdars. It can also be provided through the CPR's own savings.

The facilitation of CPR formation and support in establishing user rights is another function that NGOs have often been contracted to provide. But NGOs in Bangladesh are basically MFIs. Micro-credit is their core business and all else tends to be subordinated to the goal of giving and recovering credit. Consequently they tend to minimize their other facilitating activities. Experience in the Fourth Fisheries Project, where a number of NGOs, big and small, were involved, showed that a number of NGOs, particularly the small, local NGOs, tended to side with the local elite in monopolizing returns from fishing and side-lining fishers from any real involvement in management5.

Two points come up with regard to the involvement of NGOs. First, it is better to involve national, or large NGOs, rather than small, local NGOs. The local NGOs

[5] See Aeron-Thomas (2005) for details of NGO functioning in the Fourth Fisheries Project, some of it in collusion with DoF officials.

tend to be more linked to local power structures, or unwilling to act in the interests of fishers to confront local power structures. It would then be preferable to involve large, national NGOs, which have a reputation to maintain. This need to maintain a reputation would work in favour of checking local units and even taking action if they collude with the local elite against the interests of the fishers.

At the same time, one cannot simply presume that the interests of the NGO necessarily coincide with those of the project, or the CPR. As the failure of BRAC to fulfil its contracted post-project responsibilities in OLP-2 shows, it is also necessary to devise an incentive system for NGOs, so that it is in their interests to continue post-project support to the CPRs.

CONFLICT RESOLUTION

In any group activity there will always be conflicts often due to domination of the group by a few individuals. Ways of trying to check such domination are through rotating leadership, spreading knowledge, technical and marketing, and mutual enforcement of norms.

Not all of the problems can be solved within the group meaning that some form of conflict resolution process becomes necessary. During the life of a project this is usually through project officials and NGOs. But what happens after a project closes and the CPR group has to manage its own affairs? An important consideration is that it should be local and thus available for low cost and also able to intervene in a timely manner.

There are four ways in which the problem of a forum for conflict resolution has been approached:

- CPR groups can be part of a nested hierarchy, and higher levels, such as cluster-level CPR committee in a haor, could serve as the dispute resolution forum for individual beel CPRs, both for their own internal problems and in disputes between beel CPRs.
- Disputes could be resolved by recourse to the state, however rent-seeking by state officials, may make this costly.
- There have been attempts to develop some sort of local-level dispute resolution mechanisms, in the form of the village shalish. But these have not yet taken off. And, to the extent they exist, they are heavily biased against the poor, women and minorities. The problem with the shalish is not a matter of training to make them more responsive to those they are meant to serve. It is a matter of the shalish having deep roots in the existing socio-political structure of domination by rich men.
- NGOs could play the role of arbitrators (Anna Knox and Ruth Meinzen-Dick, 2001). As experience in the OLP-2 showed, it is preferable to have not just the NGO but also officials of the relevant government department, DoF, LGED, or whichever department is connected with the CPRs. Having both NGO and departmental officials in a conflict resolution or appeals

forum, gives more scope for the weaker persons or groups within a CPR to find someone who will be willing to listen to their appeal, although even this is not fool-proof (Aeron-Thomas, 2005).

POVERTY AND SOCIAL CAPITAL IMPACTS

Taking control of boars as common-property resources, means there is frequent interaction between members of the CPR. Besides working together, they have also build relations as social groups, often participating jointly in festivals (both Hindu and Muslim) and other events. Relations between group members are strengthened by the practice of giving members wages for fishing days on which they are genuinely sick and so cannot work with the rest of the group. The increased interaction between group members, going beyond work requirements, leads to closer relationships and strengthens their internal social capital.

CPR members have seen a substantial change in their economic and social status. In terms of income and consumption status, fishers in well-managed baors of OLP-2, from having been among the poorest in the villages before the project, had come up to a lower-middle status by the end of the project. They felt that they had clearly moved out of poverty. Of course, not all would have made such a move out of poverty, but they felt that many of them had made this move. One way in which this was reflected was in the common understanding that their children, girls and boys alike, would study as long as they could, even beyond high school. Insufficient income was no longer felt to be a reason to stop their studies.

But in Talbaria (AqDP), one of the autocratically-managed baors, where fishers just get a wage of Tk.100 per fishing day (or 20% of the catch in other such baors) that the fishers, though generally very quiet, said that they were poor before the project and are remain poor now.

The change in economic status of CPR members in well-managed baors is reinforced by the fact that CPRs are fairly large economic units, some with net annual income running into Tk.1.75 million (Sirishdia baor, AqDP), Tk.2.0 million (Chand Beel, AqDP), or even more than Tk.2 million (Bahadurpur and Porapara of OLP-2). For such medium-size enterprises, it is not difficult to make donations of Tk.10,000 for local social causes, something that hardly any individuals in these villages would be able to do. The CPRs have used their economic strength to support a variety of local social causes, from primary schools to hospitals and sports clubs.

In the course of the Project the CPR committee members, in particular, have interacted with various government officials and many officials, both from Bangladesh and outside, have visited the baors to see the project. All this contributes to increasing the social contacts of the fishers. With this there is also a new dignity, typified in some leaders being addressed as, for example, “Haldar

Mahashay", meaning "Mr. Haldar", rather than the earlier "jhele", which is a pejorative for the Hindu fishing caste.

To establish the lease rights of the CPRs the fishers, with support from the LNGO and some government officials, have had to struggle against former lease holders and sections of the local elite. These struggles have strengthened their internal cohesion and success has given them a confidence which is noticeable in their manner of speaking and behaving. The hesitation to speak with officials, noticeable at the beginning of the project, is no longer there. Of course, this has not changed uniformly among members, with the leaders much more transformed than others. But over all there is a confidence and cheerfulness that were formerly not present.

CONCLUSION

In concluding this review, we shall sum up some of the desirable design features, or good practices, for a CPR, as they have emerged from the review. Many of these desirable design features correspond to those which in the literature have also been identified as being necessary for a successful CPR (for example, Ostrom, 1990 and 1999).

- CPR members chosen from the users (fishers and/or agriculturists adjoining the beel);
- Clearly defined social boundaries: A set of individuals with rights to use the resource and its physical boundary itself being defined;
- Secure and medium- to long-term lease at an affordable cost;
- Equity in sharing expenses and income, i.e. benefits from the CPR;
- Democratic, transparent and inclusive management of the CPR, with support from external agencies, relevant departments of the state and NGOs;
- Monitoring by the users themselves;
- Graduated sanctions for violations of CPR rules; and
- Conflict-resolution mechanism, such that there can be quick access to low-cost, local forums for resolving conflicts.

For the above a set of enabling conditions is also necessary:

- Government decision to handover lakes to CPRs of users on secure and medium- to long-term leases at reasonable cost;
- Support from relevant government departments and officials to CPRs establishing secure user rights and the boundaries of their resource;
- Infrastructure development to meet the new needs of increased fish production and to bring the water body into the orbit of state governance; and
- Provision of working capital through an MFI or other such official (as against traders' credit) source of credit.

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