



Fish, Fishing and Livelihoods -

Community Based Organisations as Focus for Local Development

Getting out into the countryside

We drove down from the north-eastern divisional town Sylhet, home to many families of Bangladesh origin in London. To our right, seemingly not too distant, the steep hills of Meghalaya (India), rising up straight out of the plains. In between the hills and the road, lush green paddy fields had started emerging from the receding waters.

Meghalaya probably receives the highest levels of rainfall in the world. Early rains in Meghalaya cause short but disruptive flash floods of several meters in Sunamganj in April almost every year. When in May or June the monsoon starts in earnest, the rivers running down from India spill over into the vast inland floodplains (haor area) of northeastern Bangladesh. As the water cannot drain quickly enough through estuarine part of Meghna, the floodplains disappear under several meters of water each year for couple of months.

From the car we witnessed the vast water expanse of one of the floodplains, stretching from the Indian hills right up to road just before we drove into Sunamganj. We saw fish eagles hovering over the waters, and fishing boats in the far distance. In between the paddy fields numerous smaller water bodies remain for the next few months, until most of these will finally dry out at the end of the hot season in March. Then the flooding cycle starts again.

1. Small lake or a large low-lying depression in a floodplain that may be reduced during the drying season during the drying season to a series of beels.



Fish for the happy few

Wild fish are everywhere in the *haors*, but fishing is not "free-for-all". In fact, all these water bodies, large and small, are leased out to the highest bidder through the Revenue Department of the Ministry of Land (MoL). More often than not, this highest bidder then turns out to be a ruthless business-type of person, hiring fishers locally or from elsewhere, intent on squeezing out as much fish as possible.

For instance, by blocking fish from moving through the floodplain channels back in to the main rivers, by pumping out the last ditches or even by using salt to agitate the last fish hiding in the mud. Of course, such disruptive practices have disastrous effects on next-year's young fish, as hardly any brood fish survive into the next flood season.

As lease-periods are for a few years only and there is always the risk of being outbid the next time, the idea of conserving fish breeding stocks for the next harvest by the next leaseholder, does not appeal to the present leaseholder intent on maximizing his returns.

Moreover, local fisher communities are not allowed by the leaseholders and their helpers to pull their own nets or even poke around the edges for a few fish. Virtually surrounded by water, many people in the isolated villages on the *haors* go hungry during the flooding season.

Sunil Biswas (41)

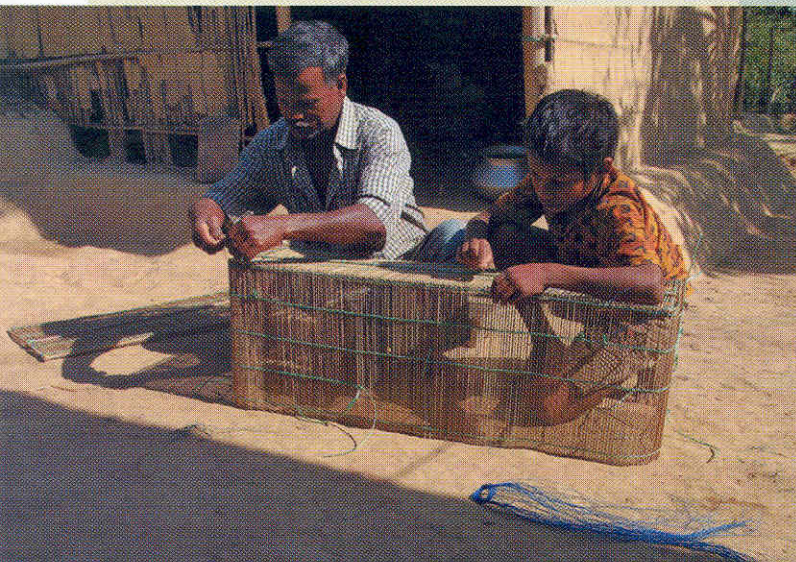
Chandergaon village

Member of Lomba Beel CBO

Sunil Biswas is from a traditional fishing family. However, his family had lost access to their usual fishing areas when the government in 1980 started leasing out all smaller water bodies (less than 20 acres). Then, business crooks bought up all the leases and brought in their own workers.

"Fishing in our area has always been controlled by powerful business people. They have the money for outbidding anybody else. Even when I was a kid, we were forbidden to fish in the beel next to our village. Then, at the end of the hot season the last remaining water was pumped out of the beel by the leaseholder in order to catch all fish.

I was no longer allowed to fish in Lomba beel and would be fined by the leaseholder when caught. But when we formed the BMC (Beel Management Committee), I was allowed again to fish in Lomba beel for the first time in 25 years! "



Changing the pattern of exploitation

The central tenet to Community Based Fisheries Management (CBFM) is that users dependent on a common resource, in this case fishers and other households depending on wild fish to catch, will harvest that resource in a sustainable manner by adhering to sound environmental practices. However, fish stocks become quickly over-exploited, when outsiders control the fishing for maximum profit and local inhabitants have no option but resorting to poaching.

This is where the CBFM-SSEA project has come in. Starting from the assumption that involvement of local fishers along with the other villagers is an absolute requirement in sustainable natural resource management, CBFM-SSEA aims to transferring fishing rights of local water bodies directly to local fisher groups.

Under the CBFM-SSEA project, six 'Community Based Organisations' (CBO) have been formed around six waterbodies. Through motivation, training, awareness and meetings by the partner NGO staff CBOs are becoming local grassroots institutions, capable of ascertaining long term access to 'their' water body and implementing ecologically sound fisheries management practices.

The fishers from the CBO membership were then organised in Groups headed by their own elected 'Beel Management Committee' (BMC) for managing the water body (called 'beel') next to their village.

Basic outline of Community Based Fisheries Management - South and South East Asia (CBFM-SSEA)

CBFM-SSEA in Sunamganj district was designed as a small action-research project, combined with a flexible, development approach ("people first").

- *Six 'Community Based Organisations' (CBOs), consisting of (male) fishers plus other villagers and a small women representation, were formed in the first year of the project. Initial selection was based on a household poverty census by the partner NGOs.*
- *With the help of the two partner NGOs, CBO members got access to small loans to CBO members (interest rate: 12% p.a.). Although micro-credit is commonly used in development activities in Bangladesh, it is still not widely available in Sunamganj district.*
- *In the inception year of the project waterbodies included through direct leasing by the partner NGOs or by sub-leasing arrangement (especially small water bodies less than 20 acres). CBOs received access right from the NGO through a management agreement. However, waterbodies were formally handed over from the Ministry of Land to the Ministry of Fisheries and Livestock in the second and third year of the project. In first year of the project the CBOs were provided lease value as revolving grant money which manage the beel fisheries and resources to save money from fish sales for payment of next year's lease fee.*
- *Environmentally sound management practices adopted, i.e. designation of eleven fish sanctuaries (approx. 10% of permanent water area), observing fishing ban period during the fish breeding season (except for subsistence fishing), ban on small mesh nets, and de-watering. Most CBOs also planted saplings of flood-resistant swamp trees to restore wetland habitat.*
- *Registration of the CBOs with the Department of Cooperatives followed in the fourth year. Registering requires written bylaws, and annual audit of accounts by this Department to ensure transparent sharing of benefits among the CBO members.*

In addition to the action-research in Bangladesh, a similar CBFM approach has been put to test in Vietnam under the CBFM-SSEA Project. The CBFM approach, however, is a very recent introduction to Vietnam and it is too early to compare results. This brochure focuses on the findings from Bangladesh only. For more information, please contact The WorldFish Center, Bangladesh and South Asia Office.

Vision

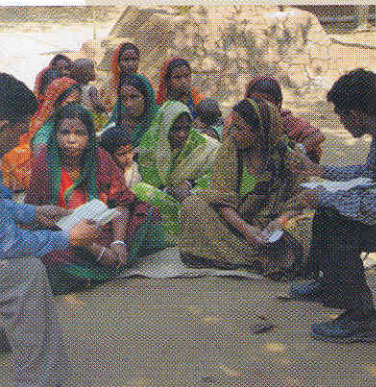


The thrilling underlying issue is that CBFM is not just about improving the fisheries and the environment, but rather about redistributing the benefits of the resources from the water lords to the fishers, almost similar to redistributing *Khas* (govt.) land to the landless poor in Bangladesh (although *Khas* land distribution is a permanent arrangement)! Secondly, by improving the fisheries in the *beels* once the floods have receded, it seems likely that also the fisheries during the high water season will also improve.

Thirdly, the concept of self-management and of democratically electing respective local committee is revolutionary to rural Bangladesh and much of South Asia, where local strongmen have always called the shots. While this may not show within the short duration of a development project, hopes are that these concepts do trickle down into mainstream society if not now, then with the next generation. Some of the youngsters from these fishing communities, one day, are expected to rise out of their communities, and take these concepts with them as they move up.

Right from the start, CBFM-SSEA has involved government staff from the Department of Fisheries (DoF) in assisting the CBOs with obtaining leases of water bodies, conflict resolution, training and capacity building on fisheries management. DoF is also charged with enforcing the fishing rules about types of gear and minimum mesh sizes.

Community Based Organisations as grass root institutions



By establishing the 'Community Based Organisations', grass roots institutions have been created. Registering the CBOs as formal cooperatives has further strengthened the institutional capacity building process. Registration requires - for instance - adoption of written bylaws and an annual audit of the accounts by the Cooperatives Department, ensuring proper and transparent financial dealings.

In ensuring mutual trust and thereby long-term sustainability, CBO office bearers are elected annually by the members, with one seat reserved for a woman representative. This is in fact a big break from traditional practices. To further strengthen the network of the CBOs, a federation committee is formed covering all three CBOs from the same area. This federation committee is also elected by the CBO members from amongst their own office bearers.

Fisheries management practices

For reversing the environmental degradation, a number of measures have been advocated-fish sanctuaries, closed fishing season in the breeding period, ban on small mesh nets and other harmful gears, ban on complete de-watering, and planting of swamp trees. Awareness raising activities on environmental issues both for participants and non-participants further contribute in arresting the declining trend in capture fisheries. Guarding of the areas under CBFM is essential, if only to ascertain ownership of the resource and encourage compliance.

Sharing arrangements

In CBFM, typically fishing for the market is restricted to group members. Notably in Bangladesh, the costs for next year's lease fee are set aside from the proceeds of the large catch at the end of the season (group fishing). Some members who are professional fishers also catch fish for the market on a daily basis (individual fishing). Small scale fishing for daily subsistence is allowed to both group members and non-members, thereby sharing benefits with the community as well as motivating non-members to observe the fish sanctuaries.

Problems and conflicts

Nevertheless, even when CBOs have been formed, and leases transferred and paid, old exploitative patterns will not simply disappear. Based on traditional patronage patterns, locally influential persons do occasionally try to upset the groups or even frighten them away. Concerted action, based on proper procedures and direct access to government officials, has proven decisive in such disputes.

For every water body, there exist stories about former leaseholders, local influential persons, and fish traders etc., who, at one time or another, have tried exerting their control over the resource. Local strongmen create discontent through gossip, rumours, untrue accusations, threats - ready to collect any fall-out from these tensions. It requires a well-organised CBO to avoid the pitfall of bickering.

Resource conflict over Fainda beel (2002-2004)

Project activities at Fainda *beel* were interrupted from the very beginning. It appeared that Muslims from Anwarpur village were quarrelling over the fisheries management with Hindus from Dattagram. But it was not a religious conflict, rather a resource sharing conflict. The local strongmen, afraid of losing their income from the *beel*, hoped to continue as before, using religious strife as a smoke-screen.

- Eight scuffles in 2 years, with at least 100 injured CBO members of which 10 persons seriously hurt; 150 pieces of nets and 5 fishing boats stolen; one motorbike of NGO hijacked; and the guard shed burned down.
- Eight court cases filed by the CBO; police raided the houses of the opposing factions 7 times; 17 boats and 260 nets seized by the police;

Meanwhile, in spite of the conflicts, awareness training and micro-credit activities went smoothly, the CBO became well-organised. Finally, the Ministry of Land handed over the lease of Fainda *beel* to the CBO in 2004.

Market value of the fish catch (not including subsistence fishing) was about 2000 USD in the first year; almost nothing in the second year as a result of the conflict; and about 7500 USD in the third year, and still higher in 2006. These figures clearly illustrate why the conflict was drawn out over such a long period! But more importantly, it demonstrates the cumulative benefits derived from the CBFM approach.

Fish catches increase through protecting the environment

Managing fisheries in such a way as to maintain fish stocks in years to come, requires a sense of responsibility as well as a sense of long-term involvement. Responsible and sustainable practices aimed at protecting the environment can be encouraged through training and awareness raising. Environment protection goes hand-in-hand with increasing fish stocks from the previously over-exploited levels.

Long-term involvement typically means exclusive and guaranteed access for a number of fishing cycles. In simple language, before agreeing to protect the environment, fishers want to be assured that they (and they alone) will reap the future benefits. Transferring leases of water bodies towards genuine users of the resource (either traditional fishers or newly trained people) creates this required long term interest. Fishers who feel secure in accessing the water body in future, are happy to invest time and effort in implementing proper environmental practices.

For instance, fish sanctuaries are maintained and guarded day-and-night. Trespassers are brought to the local *shalish* (village trial) and fined. Several members have informed about the numbers of 'aquatic' animals (frogs and crabs) have been increased, which is a clear sign of the environmental restoration, and that more migratory birds are seen in winter than before when there was no sanctuary. Women have said that they do find much more edible plants around the beel than previously.

Furthermore, implementing simple, enforceable rules such as banned-fishing periods (3 months) and prevention of complete dewatering, has led to a noticeable increase in marketable fish catches. So far, the major fish catch at the end-of-season has increased at least two times since the project started 4 years ago, and CBO members claim that also more non-members are now catching fish around the waterbodies for daily subsistence. The subsistence catch is especially important for non-member households living around the waterbodies, and for all villagers during the time of the fishing ban.

Vushon Purokeasto (36),

Chandargaon village in Biswambharpur upazila
CBO member of Lomba beel

"I have to maintain an 11-member family including my parents and children. I never attended school, but I can sign my own name. I am a traditional fisher, but due to the lease system in the haors I was excluded from fishing and my main occupation was share-cropping, which really leaves very little profit to my hard work. Once, when I tried fishing in the open water, the leaseholder forcefully confiscated my nets.

While I did not understand the idea of the CBO very well at first, I was impressed by the NGO staff supporting us all the way to the district office to get the fishing lease on the beel. Imagine that I had become co-owner of the beel next to our village through the CBO! This really increased my confidence in the NGO. I then started depositing weekly savings, and after one year I received my first loan of 60 USD. I bought a cow for selling milk, and I got three calves in three years. My four cows now have a market value of more than 400 USD!

We completed four fishing cycles on our beel until now. In the first year I received 4 USD only, as fish stocks were still low and lease fee was high as it was a subleasing arrangement. Together with the NGO we negotiated a lower lease fee when the lease was transferred directly to the CBO in the second year, and so that year each member received 17 USD from fishing. In the third year my share increased to 50 USD and last year we got 125 USD each, which clearly demonstrates our progress!"



Women and fish

Gender roles of men and women are largely different in village society. Fishing has always been a male occupation, and many men as well as women frown upon women getting involved in fishing. Of course, destitute women have always gone around catching very small fish and shrimp with push nets, but this has always been a sure sign of decreased social standing.

Nevertheless, forced by economic hardships, new ways are now being explored in involving women in *beel* management, ranging from guarding to full involvement in actual fishing. While this may seem a small step, it is in fact revolutionary in rural Bangladesh.

Abani Mohan Biswas

Secretary of Lomba Beel CBO

"From the beginning of the project, our wives and daughters have been in full support, as they watch over the beel from their houses. Whenever something happens, they warn us and we rush out. Women are also involved in handling and sorting fish at the major harvest. Last year the NGO persuaded us to include three women in our group in recognition of their contribution to managing the beel. Also, as CBO members they have now received their first loans."

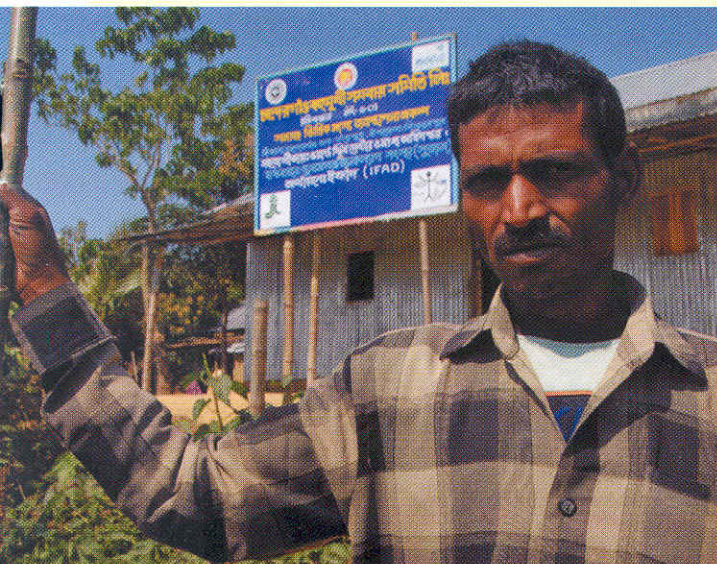


Jhunu Rani (47)

of Gopalpur village

Member of CBO of Chatol Moishakuri Beel, and also representative on the CMC.

"Before the project started, women hardly participated in any fishing activity. Then 10 women from our village joined the CBO and its micro-credit programme. After two years, Promilla Rani (not my sister) and I were invited to become office bearers in the BMC. First we received training in fisheries management and then we took on full responsibilities in selling fish, and in guarding the beel. The BMC even bought a pair of binoculars for us. Eventually, we also took part in the annual final harvest, by catching fish from the mud. At first our husbands did not seem to approve, but they were convinced by other CBO members that there is nothing wrong in catching fish. Now it is accepted in our village that men and women both assist in the final fish harvest."



Good results from the third year onwards

Clearly, the fish stocks in the *haors* are over-exploited. The core assumption in the design of CBFM-SSEA has been confirmed - sustainable fisheries management, by reversing environmental degradation, has resulted in considerable increases in yields.

Water bodies and membership

In general, the water bodies vary in size from 2.5 to 78.1 ha (including temporary water area), and reduce to much smaller permanent water in the dry season. For instance, in dry season Soma Nodi covers around 25 ha of permanent water, which is only 2 ha of permanent water in Nainda and about 1 ha in each of the other four other beels under SSEA project.

General membership for all 6 water bodies stood at 505 persons (including 81 women) in June, 2006. Out of the total CBO membership, 255 were fishers organised in 'Beel Management Committees' (i.e., fishers involved in the group fishing at the end-of-season).

Table-1. Main fish catches (end-of-season)

| | Soma Nodi | Nainda Beel | Chatol Beel | Chatol Moishakuri | Lomba Beel | Chittlia Beel | AVG | CV (%) |
|--------------------|-----------|-------------|-------------|-------------------|------------|---------------|-------|--------|
| Official Area (ha) | 78.1 | 16.0 | 12.4 | 5.4 | 2.5 | 3.3 | | |
| 2003 (kg/ha) | 44.8 | 201.2 | 149.1 | 288.3 | 778.7 | not started | 292.4 | 98.7 |
| 2004 (kg/ha) | n.d. | n.d. | n.d. | 257.7 | 795.6 | 614.7 | 556.0 | 49.2 |
| 2005 (kg/ha) | 160.1 | 298.9 | 282.7 | 559.7 | 1,495.2 | 635.2 | 572.0 | 86.6 |
| 2006 (kg/ha) | 259.4 | n.d.* | 336.9 | 656.4 | 1,674.3 | 755.0 | 736.4 | 78.0 |

n.d. = no data; no or incomplete fishing, due to resource conflicts, excessive waterweeds, etc.

* Nainda beel: no fish harvested in 2006 (whole beel guarded as sanctuary, with hopes for higher harvest in 2007)

** CV = Coefficient of Variation

Fishing

It generally took two-to-three full cycles for the CBOs in getting organised. For instance, some CBOs experienced initial setbacks in asserting effective control over the water bodies they had obtained. And the effects of sanctuaries and closed seasons only become fully apparent after several annual cycles.

Three types of fishing is usually practiced in CBFM-SSEA working areas - group fishing with large seine nets at the end-of-season; individual daily fishing during the flood season; and subsistence fishing around the edges of the water bodies with small gears. The average catch per water body from group fishing increased from 292 kg/ha in 2003 to 736 kg/ha in 2006 (up 251%). This clearly shows the increasing trend in each water body (Table-1) and corresponding coefficient of variation (CV) were 98.7% in 2003 and 78% in 2006.

CBO members expressed that individual daily catches have also increased, and that more non-members are now fishing for subsistence around the water bodies. Note that conflicts made group fishing impossible in 3 beels in the second year (2003).

Fishers' income

The actual combined fishing profit (fish sold minus operating costs) for all six *beels* increased from 5,072 USD in 2003 to 21,043 USD in 2006. Before sharing the fishing profit amongst the fishers, next year's lease fee payment is first deducted. While the lease fee eats heavily out the first year fishing profit, it is much more reasonable in a well managed fishery in its 3rd or 4th year of operation. Fishers' share hovered around about 20 USD per fisher in 2003 and 2004 (av. of 6 waterbodies), increasing to 40 USD per fisher in 2005, and 100 USD per fisher in 2006 (Table-2). Corresponding coefficient of variation (CV) in 2003 was (106.7%) higher than (50.2) 2006, which means that in 2003 in income distribution had less equity than 2006.

Table-2. Profits from the main fish catch at the end-of-season; lease fee to be reserved from these profits; and fishers' share

| | 2003 | 2004 | 2005 | 2006 |
|----------------------------------------------------------------------------|-------|-------|-------|--------|
| Total Fishing Profit (6 water bodies: USD) | 5,072 | 2,225 | 9,855 | 21,043 |
| Total Lease Fee (6 water bodies: USD) | 2,501 | 3,166 | 3,180 | 3,180 |
| Fishers involved in major catch(number) * | 148 | 56 | 261 | 225 |
| Fishers' Share (average of 6 water bodies) (USD per fisher) | 23.5 | 17.2 | 40.3 | 102.0 |
| Fishers' Share Coeff. Variation (%) | 106.7 | 46.4 | 43.3 | 50.2 |

* Data from all 6 waterbodies (except where no catch data were available, see Tab.1)

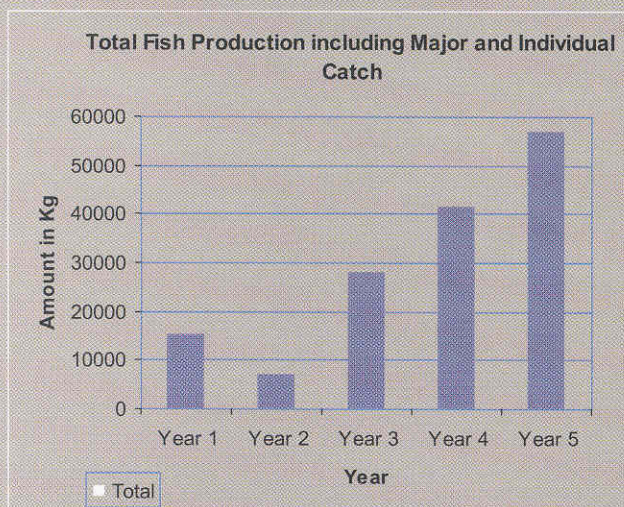
**Excl. 30 fishers from Nainda beel, where no fish were harvested in 2006 (255 fishers in total in 2006)

Fishing profit = Market value of fish minus operating expenses

Fisher's share =(Fishing profit - Next year lease fee), divided by the number of fishers

1 USD = 68 BDT in 2007

Following figure show that volume of total fish catch including catch of group fishing and from individual fish catch monitoring. Over five years project period total volume catch has increased from Kg 15214 to Kg 56958 which is about 374% higher than the base year 2002.



Micro-credit works wonders! (sometimes, at least ...)

At the start of CBFM-SSEA, most of the better-known Bangladeshi NGOs involved in micro-credit and training had not established any branches in Sunamganj district yet. When designing the project, it was felt that the six water bodies to be brought under CBFM-SSEA were not sufficiently large-enough resources for employing large groups of people as fulltime fishers. Micro-credit administered through the project was then considered as a means to involving the communities at large by providing access to alternative livelihoods.

While there is no clear direct link between organised fishing in CBOs and micro-credit, what matters most from the development perspective is that micro-credit may dramatically improve the lives of certain individuals otherwise left out, as has happened in several instances in CBFM-SSEA as well. Some stunning success stories came out as micro-credit was provided to these remote villages for the first time.

Savings and micro-credit

All 505 CBO members are enrolled in the savings scheme in order to strengthen their financial capacity. Total savings stood at 2,966 USD up to June 2006, averaging 6 USD per person. The small savings are indicative of the level of poverty and the limited credit absorption capacity of the CBO members. The project does not prohibit the use of these individual savings when needs or opportunities arise.

Presently 321 CBO members are enrolled in the micro-credit scheme, aimed at encouraging Alternative Income Generating Activities (AIGA). Cumulative disbursement credit has been 15,159 USD in 4 years, averaging 47.2 USD per person. Repayment is largely on time, with cumulative repayment standing at USD 7,359, averaging 23.5 USD per person (Table-3).

While the amounts of credit disbursed appear small from a banker's perspective, CBFM-SSEA has rather emphasized fisheries management, institution building and training. Overburdening group members under financial obligations increase the risk of disrupting the development process. It is clear, however, that NGO support after completion of the project cannot be financed out, interest earnings from micro-credit and the CBOs must be carefully weaned.

Table-3. Cumulative micro-credit disbursement, repayment and savings (up to June 2006)

| | Soma Nodi | Nainda Beel | Chatal Beel | Chatal Moishakuri | Lamba Beel | Chitlia Beel | TOTAL |
|--------------------------------------|-----------|-------------|-------------|-------------------|------------|--------------|--------|
| Cumulative Savings (USD/Person) | 3.6 | 8.8 | 9.3 | 7.8 | 8.9 | 6.4 | 2,966 |
| Cumulative Disbursement (USD/Person) | 40.4 | 51.7 | 35.0 | 61.9 | 46.5 | 59.5 | 15,159 |
| Cumulative Repayments (USD/Person) | 15.6 | 24.1 | 19.0 | 36.2 | 26.3 | 31.8 | 7,539 |

NB: All beels except Chitlia Beel: year 3 = 2005; Chitlia Beel: year 3= 2006.
1 USD = 68 BDT in 2007



Jabed Biswas (26)

Chandargaon village
Member of Lomba beel CBO

Jabed is a fulltime fisher from a traditional Muslim fishing family, earning about 1 USD from his daily fish catches. While securing the right to fish in Lomba beel as member of the BMC was already a step forward, Jabed jumped at the chance to get started in Alternative Income Generating Activities (AIGA). After receiving one day training on duck rearing, and with a loan of about 50 USD, Jabed started his own duck farm with 400 baby ducks.

As Jabed explains, "During the flood season, I take my ducks out in the shallow areas of the haor to feed on soft waterweeds, snails and shrimp, and at night I go round the haor to set my fish traps. Initially it was difficult to make weekly repayments, but things improved when my ducks started laying eggs. When I sold the grown ducks, I cleared all my debt. While I had not made much profit this time, I was now an experienced duck rearer.

The following year, I took a second loan of 100 USD, from which I bought 600 ducklings and renovated the duck shed. I sold off the first 200 ducks for 180 USD just after two months! When the ducks started laying eggs, I earned about 8 USD each day from selling about 300 eggs daily. I spend half of this money for extra duck feed and weekly loan repayments.

This project not only helped me securing my fishing rights as a traditional fisher, it also helped me go beyond fishing with Alternative Income Generating Activities (AIGA) in order to improve my socio-economic status.



CBO groups as a pathway to alternative livelihoods

The formation of CBOs and BMCs has given several individuals a pathway to alternative livelihoods. In some cases this has led to spectacular upward socio-economic mobility, thereby forming the basis for a local "middle-class" as counterweight to traditional patterns of patronage.

There are a number of case studies showing that individuals, through joining the CBFM-SSEA CBOs, have actually graduated out of fishing. Some fishers have actually turned into fish traders; some bought their own rickshaws that are hired out during the fishing season. Once destitute women, through credit support have been able to start their own small grocery outlets and tea shops and by this route gaining a financial basis and increased social standing.

Sukumar Das (37)

Pangaon village, Derai Upazila
Member of Soma Nodi CBO

The CBFM-SSEA project started in Soma Nodi in 2002, with the transfer of Fainda beel. Sukumar decided to join the BMC, as he considered himself a professional fisher. However, it soon turned out that Sukumar had other qualities as well!

"I am from a traditional fishing background, and I regularly fish in order to provide food for my family. I had an irregular income, sometimes as a day-labourer, sometimes as a rickshaw driver. During the rainy season it is almost impossible to find a job, and that is also the time when fishing is difficult as waters are high and the young fish have not yet had time to grow. After joining the project, I got a loan of 30 USD with which I bought 3 sheep. The following year, I got another loan of 150 USD and bought 7 sheep and 100 ducklings. From selling eggs, I earned around 40 USD per month. Later I sold all the ducks when they stopped laying and earned about 150 USD. I sold 4 grown sheep for 50 USD and later on, I sold another 5 sheep at about 100 USD. Loan repayment was never a problem for me.



Now, two years after the start of CBFM-SSEA, I earn 1.5 USD per day as a rickshaw driver. I have now eight sheep, which represent at least 125 USD in savings. I also managed to repair my house after it had partly submerged in recent flash floods. I also harvested 1000 kg paddy from fields that I hired, and I bought an additional 600 kg paddy when prices were low. So, my family has now at least two meals every day, and my daughter is admitted in primary school!

Before, as I didn't have any property or savings, I had to go without anything to eat during periods of bad weather, or when I went ill. These worries have all gone now. Moreover, I want to be a big sheep farmer, and even buy some land. I do not need any further credit as I have become truly self-supporting from my rickshaw. However, I am still interested to learn about other income generating activities from the NGO".

Promila Biswas (42)

Gopalpur village
Member of Lomba Beel CBO



Promilla explained: "I was married off by my parents when I was just fifteen years old, with only three years of primary education. I never worked outside my small house. My husband is from a traditional fishing background, catching 1-2 kg of fish every day which he sells for about 1-2 USD. This was clearly not sufficient for our household of seven people, and we often only had one meal in a day.

Then, I joined a women group within the Community Based Organisation four years ago. We received awareness training by the NGO, and we started making weekly savings in the CBO account. When the NGO staff was convinced about my sincerity, I received my first loan of 30 USD. Actually, before the project you could only borrow money from a 'loan shark' at 15% per month, while the NGO charges only 12.5% per year. With the loan, I bought materials for making fish traps, which are in high demand during the rainy season. With the whole family we worked long hours every day. If we really pushed ourselves, we could complete almost 30 fish traps in a day, which earned us a profit of 3 USD and we had no problem repaying the loan.

Six months later, I got a second loan for 45 USD with which my husband started selling grocery items from our house, earning about 1 USD per day. Then two years ago my husband stopped fishing altogether as he got too old for the heavy net pulling. He then started as a petty trader going round the villages while I continued our grocery shop at home. Our regular income outside the season for fish traps is now nearly 3 USD per day, and we have managed to enrol both our daughters in primary school."

Community Based Organisations take on welfare functions

A clear indication of CBOs maturing into grassroots institutions is that they have started assuming welfare functions outside the immediate scope of fishing and fisheries management. For instance, when a CBO member needs to be admitted in hospital, the CBO assists by advancing some money to pay for the hospital costs. This is a clear sign of the CBOs integrating within their local societies.

Moreover, CBOs have managed to access other local organisations and government agencies in times of need. For instance, in 2004, flash floods hit Sunamganj three times. The CBOs through the NGO staff managed to get emergency relief for the flood victims a total of 2000 packs of oral saline, 500 packets of rice and clothes etc.



Loxmi Kanto Boishnob (35)

Chairman of Nainda Beel CBO

"We have taken various initiatives on behalf of the community. When our BMC President died, we contributed to the funeral expenses from our fishing income.

During the floods it is very troublesome for kids to attend school in another village across the water. Therefore, we recently opened a school in own locality and appointed a teacher with a salary of 10 USD per month. We are paying her from our fishing income.

We are also planning to install a tube-well here as safe drinking water crisis is a major problem in our village.



Mrs. Rongmala Khatun (40)

Anwarpur village in Derai Upazila
Member of Soma Nodi CBO

"When my husband became ill, I had to start working as a maid. After he passed away, the fishers invited me to bring them tea in the fish landing site. They also advanced a thermos flask to me. I also took a small loan of 15 USD, to buy tea, sugar and milk. Profit on tea is pretty high, and during the season I can sell around 1200 cups per day. By now, I have repaid the loan and price for the flask.

Then I took a second loan of 30 USD to start a small grocery outlet to work during the non-fishing season. The fishers are really nice to me and they don't buy tea from others. While I sell tea, I also get some fish for free."



Sustainability of the results

CBO members themselves are convinced of the benefits of obtaining official lease of the *beels*, and implementation of sound environmental management practices. There is even an example of a CBO which obtained another lease for a second *beel* close to their first *beel*. (story of Mr Jahangir Alam, see box).

Concern has been expressed, however, that local business crooks will more-likely-than-not test the resolve of the CBOs after the project ends, and resource conflicts are likely to erupt. Minimal follow-up, e.g. 3-4 field visits per year by the local NGOs, during a weaning phase of 2-3 years might help address these speculated conflicts.

Mr. Jahangir Alam (32)

Secretary of Chitlia Beel CBO
Teacher in Arabic at a Madrassa School

"Earlier I was involved with some of the present members in obtaining leases in the name of a Youth Cooperative. Our intention at that time was to make a quick profit through subleasing the water body to others. But now situation has changed and we stopped being a nuisance. We have become a part of the village middle class network"

"We are not really the poorest villagers and fishing income is secondary to our main income. The most significant gain out of this new management system is that we learnt many things through NGO training, ranging from sanitation issues to financial management. As a matter of fact, many of us do not need micro-credit, as we now have learnt how to pool our own savings."

"For instance, it so happened that the lease of a tiny beel next to our own beel came up for tendering, and we obtained that second lease from our own savings which we had accumulated under the CBFM-SSEA project. We are now going to implement the same fisheries management on both beels, and we will further increase our group with three new members."



Outreach

While Community Based Fisheries Management may not be the ultimate solution to all poor people of Bangladesh, it does make a considerable contribution to those communities largely dependent on fishing. Apart from the CBFM-SSEA project, some other projects are also using this community based approach and the results are quite encouraging. The outcomes of these projects are being appreciated locally as well as nationally.

The CBFM-SSEA project has confirmed the concept of fisheries self-managed by local user groups in combination with sound environmental fisheries practices as a viable concept, and these successes now need further replication. Floodplains in Bangladesh and other countries in South and Southeast Asia cover more than six million hectares. All in all, there is huge potential for increasing fish catches from floodplains through CBFM.

Lessons learnt

1. Sustainable resource management, which is part and parcel of the CBFM approach, has led to documented increases in yields as well as returns through reversing environmental degradation, compared to the previously existing situation of over-exploitation of fisheries resources.
2. By establishing the CBOs for management of the water resources, and by formally registering such CBOs within the Government system, grassroots institutions have been created which have successfully exerted their legal rights.
3. Initial revolving grants for payment of the first-year lease fee have proven a justifiable expense in light of the objective of establishing large groups of resource-poor households as sustainable CBOs for fisheries management.
4. By making the processes of cost sharing and revenue distribution transparent for all, inside as well as outside the CBOs, planning beyond the day-to-day needs has become feasible as there is now less fear of losing out on one's individual fishing share.
5. Inclusion of resource-poor households in the CBOs has provided several individuals with a route to wealth creation at local scale resulting in upward social mobility, thereby forming the basis towards a local "middle-class" as counterweight to traditional patterns of patronage.
6. Good fisheries management has led to adjusting the number of fishers in relation to the carrying capacity of the water resources; with increasing yields, the pressure from other resource-poor persons on sharing in the fisheries resource can be accommodated by increasing the number of CBO members.
7. Women involvement in actual fishing activities has met serious cultural limitations, making this an option-of-last-resort for seriously deprived women only; nevertheless, inclusion of female representatives in the cluster management bodies has meant that women interests are being represented at the decision-making level for the first time.
8. For CBOs that have not graduated to self sufficiency further support is required. If NGO's are to provide support, micro credit volume should be sufficient to cover costs.

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Produced by



The WorldFish Center

Bangladesh and South Asia Office
House 22B, Road 7, Block F, Banani, Dhaka, Bangladesh
Phone (+880-2) 881 3250, 881 4624
Fax (+880-2) 881 1151
E-mail: worldfish-bangladesh@cgiar.org

In collaboration with



The Department of Fisheries

Matshya Bhaban (10th Floor), Park Avenue,
Ramna, Dhaka 1000, Bangladesh.
Tel: (+880-2) 9571696
Fax: (+880-2) 9571696.
E-mail: cbfm@dhaka.net

In association with SUJON, ERA



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Text
Hans Middendorp

Edited by
A.K.M.Firoz Khan | Alan Brooks

Coordination
Hillol Sobhan

Photo credit
Khaled Sattar- MAP, A.K.M.Firoz Khan, WorldFish Center