



**Impact Evaluation
of
Community-Based Sustainable Management of Tanguar Haor**



Conducted by
Evaluation Sector
Implementation Monitoring and Evaluation Division
Ministry of Planning
Government of the People's Republic of Bangladesh

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Executive Summary

1. **Backgorund** : Tanguar Haor is a unique wetland ecosystem in Bangladesh which was declared as the 2nd Ramsar site in 2000 to signify its global value. Before formation of community based management system- TH was owned by the Ministry of Land and short term lease was given to the highest bidder/leaseholders for fishing. During leasing period- the leaseholders controlled all the resources of beels and haor beds through out the year and often applied forces and violence to prevent poor villagers from accessing fish and other resources. In 2001, ownership of TH was transferred to MoEF and subsequently the lease system was banned. Ministry of Environment and Forests implemented the project with technical support from International Union for Conservation of Nature (IUCN). Tanguar Haor comprising 100 sq kilometer is located at 4 Unions of 2 Upazilas Tahirpur and Dharampasha under Sumangonj district. The first phase of the project has been implemented from December,2008 to April,2009 with an investment cost of tk Total 393.27 Lakh and the present phase (2nd phase) started in May,2009 which will be ended in June,2012. The broad objective of the project was to form a co-management committee by Tanguar Haor community along with govt supports to protect and conserve the TH resources and help bring about substantial improvement in the livelihood of the poor and marginalized people of TH area.

2. Objectives of the current Assignment:

- I. To review the major activities implemented under the project (first phase) and its functional status at present (on going development phase).
- II. To assess some of the expected benefits/changes related to landholding size, income, housing pattern, employment, standard of living, women status and employment and their overall notions about activities of co-management of TH.
- III. To identify the strengths, weaknesses, opportunities and any possible threats towards project.
- IV. To suggest measures for more effective implementation of on going project activities and its replication in similar other wetland management in Bangladesh.

3. Methodology:

16 village committee out of 73 were selected randomly from which 256 village committee members and 40 villagers (30 non- members + 10 drop out VCC members) were interviewed. In-depth discussion was conducted with 14 key implementers at local and NGO levels. Six FGD meetings were conducted with 6 different homogeneous groups. An observation checklist was used to record implementation status of project activities. 8 Field Investigators having with requisite qualification and survey experiences were recruited and trained for 3 days for collection of data. Consultant and IMED officials cross checked the filled in questionnaires and also conducted FGD and in-depth discussions with concerned people/officials at district and upazilla levels. Survey data were processed using SPSS and findings from In-depth discussion; FGD meetings and Observation Checklist were processed manually.

4. Study Findings:

4.1 Implementation Findings:

- I. Out of 88 villages- 73 village co-management committee have been formed having 4471 male + 1217 female members.

- II. Around 57% of the household of TH has been covered till now.
- III. VCC has deployed 24 community guards from amongst their members.
- IV. 16 Community leaders have been selected and trained by IUCN.
- V. 4 UCC offices have been constructed.
- VI. VCC members accumulated a fund of tk 86.21 lakh from their own self-help credit/savings.
- VII. 3055 disadvantaged HH and 876 underprivileged women of VCC were provided financial assistance of tk. 2,02,52,000 (Till Jan 2012).
- VIII. Demarcation of 5 sanctuaries for fisheries and 2 sanctuaries for birds
- IX. A community based monitoring and evaluation system has been developed.
- X. 2409 awareness programme conducted.
- XI. 18 database have been developed
- XII. Formation of Scientific Advisory Committee and Tanguar Haor Management Authority are already under the process of initiation .
- XIII. Most of the activities implemented during 1st phase and on going phase of the project have been completed within the stipulated time and progress of activities have exceeded more than 100%.
- XIV. Govt and IUCN efforts seemed consistent and proactive despite some leniency and indifference from a few concerned officials at the local level.
- XV. Community people and their leaders have now more interaction within themselves and a sense of ownership, self confidence over management of haor resources have substantially developed.

4.2 Impact/Survey Findings:

I) Socio-economic Profile of the respondents:

Of the total respondents interviewed 62 % are found to be Muslim, followed by 28% Hindu and 10% Christian. As for marital status: (91%) are married and (5.5%) are unmarried and rest of 3.5 % are widowed and divorced. Most of the village community (83.5 %) are found to be illiterate, can only sign and can read and write only and rest of 17.5% people have on an average of 4 years of schooling. As for occupation- majority of them are found dependent on fishing (38%), followed by (35. 2%) on agriculture, (11.5 %) on livestock and (13.5 %) on small business and (02%) on handicrafts,

II) Reasons for non-involvement of other community people:

Out of 30 non-vcc members who were interviewed- 20 % of them showed mistrust and lack of confidence in VCC/NGO activities. 20% of them expressed their illiteracy and lack of understanding. 30 % of them stated that they are not enlisted despite their willingness. 20% for poor amount of loan. 15% of them stated about their inability to deposit tk. 48/= per month as savings to UCC account and 10% of them had no involvement in fishing and are better off in their own activities.

III) Reasons for dropping out from VCC membership:

Out of 10 dropped out people interviewed stated that - losses of crops due to flood and other unforeseen expenses, migration to other places due to marriage and due to inability to continue subscription of taka 48 per month to committee and temporary withdrawal are some of the major causes of their drop out from VCC membership.

IV) Expected socio-economic changes:

Unemployment of the VCC members reduced from 18 % to 5 %. Size of homestead changed from 13.4 decimal 15.2 decimals. Average income earned from commercial fishing is tk 12066 per annum. Average annual income from small scale fishing

increased from tk. 10560 to tk. 21040. Average annual savings increased from tk. 3500 to tk. 6500.

V) Changes in the standard of living:

(53%) of the members who lived in thatched house has now reduced to 17%. Use of electricity also increased from 40% to 56%. Use of open/garden for defecating has also reduced from 18% to 7%. Tendency to use of Haor water has reduced from 35% to 7%. Visitation to MBBS doc increased from 5% to 10%. Intake of fish increased from 3 days to 4.5 days a week

VI) Training and financial assistance:

Of the 190 trained up VCC members 114(60%) could utilize their training in productive IG activities. Some could not utilize IGA training due to inadequate amount of loan. Adequate amount loan money should be on average tk. 40000/=. 15% rate of interest against loan was too high to repay. Most of the loanees (53%) have repaid 75% of their loan money on time and rest of 25% of loan money has not been repaid because installment is on going.

VII) Benefits enjoyed/derived due to co-management:

Most of them stated they can do some fishing for their livelihood with reasonable amount of license fee/card, some (32%) of them stated about social improvement and some (6%) stated loan and training facilities helped to invest in IG activities of their own choice and skill and a few (3%) members stated that co-management did not benefit them much. Despite some of disadvantages- most (97%) of the VCC members stated that they are better off than that of leasing period.

VIII) Problems/difficulties faced by VCC members:

(93%) have stated to have no visible problems. Some (7%) stated about the difficulties which are- bidding rate for fish price is less, Ansar harassed vcc members despite the permit/card and some IGAs are not profitable and not easily saleable.

IX) Suggestions by VCC members for improved functioning of co-management:

Tendering by outsiders should be annulled. Amount of loan money to be increased. Ansar should be replaced by more community guards. More need based/profitable IG activities training for female members. More dams and roads to be constructed under the project and schools and hospitals to be constructed.

X) Sustainability of co-management activities:

Almost 55 % of the VCC members confided that they can sustain without IUCN and govt supports in near future. But the rest of 45 % members stated that co-management activities would not sustain due to lack of committed leadership and management incapability, internal conflicts within members, de-motivating activities from outsiders and in adequate fund.৳

4.3 Findings from In-depth discussion:

Findings and observation made from In-depth discussion with key implementers (THMC officials, IUCN and Partner NGOs officials) at the field levels.

A. Positive opinions/impression on co-management of TH resources:

- i. Mutual understandings and interactions amongst VCC members, UCC and CCC representatives with local administration have been established through concerted efforts.

- ii. Due to development of leadership in the committee- problems and conflicts are now easily solved.
- iii. Data base on Haor resources, accounting system, household information etc have been developed and duly utilized for more transparency and understanding to the committee people.
- iv. The committee people have now more awareness regarding wise use of TH resources.
- v. Hunting of migratory and inland birds has reduced due to vigilance of TH haor community.
- vi. Self-help credit/capital formation by committee people have developed a sense of ownership of TH resources by them.
- vii. 40% of the people have shifted their dependency on fishing due to government impositions of rules and regulations and involvement in IG activities.
- viii. Fish poaching is controlled or limited to great extent through drastic measure of magistrates and committee cooperation and this problem is also virtually solved through supervision by district administration and IUCN awareness programme.

B. Negative notions and external threats towards co-management of TH :

- i. Around 43% of the poor household of the TH community could not yet be included in the CBSMTH project
- ii. Training on some of IGAs have not been fully need-based and seemed not profitable..
- iii. Data base on TH resources did not seem to be easily shared or user-friendly by VCC members and other UCC representatives.
- iv. VCC members not clarified about dividend earning from 36% (benefit sharing ratio) from the sale value of fishes that goes to the CCC fund.
- v. Co-management of TH may be weakened due to lack of dependable leadership, inadequacy of fund and internal conflicts amongst some members of committee and other de-motivational activities from the vested groups.
- vi. Use of snails and shrimps with Lar hook and Gear, Chai for fishing by permit holders is destroying bio-diversity of TH
- vii. Steps taken to protect fish are sound but for conservation and restoration of trees and other bio-diversity seemed limited.
- viii. Dependency on fishing has not reduced substantially because of lack of extensive use of alternative earning activities.
- ix. Fish poaching by some of the members of committee themselves is an inherent threat to fish conservation.
- x. Some of them members of protection force and boatmen of the magistrate have collusive connection with fish poachers.

4.4 Findings from FGD meetings:

A. Positive opinions/impression on co-management of TH :

- i. Livelihood of the poor people has improved and destruction of swamp forests and killing of migratory birds have reduced to a great extent.
- ii. More than 60 % of the four beels(depressions) has been protected as sanctuary for fish as such expected volume of fishes are now available in the Haor.
- iii. Illegal and excessive fishing has reduced due to deployment of community guards from amongst committee people.
- iv. Poor fishers are getting opportunity to fish holding legal license and permit.

- v. Dependency of the community on Haor resources especially fishing has reduced due to training on IGAs and financial assistances from the UCC/CCC.
- vi. Savings through self-help credit formation has boost up their spirit and sense of ownership amongst the committee people.
- vii. Tussle over the use of TH resources within the committee people are now amicably solved by themselves.
- viii. Awareness about TH management is getting instilled through regular attendance in the weekly, monthly, quarterly and yearly meetings.
- ix. People of other haor areas adjoining to Tanguar Haor have also expressed their interest to this form of co-management for their own community.

B. Negative impression and external threats on co-management performance of TH:

- i. Tendency for illegal entry into Haor area by both approved and unapproved fishers has increased than that of the period of leasing system.
- ii. Sometimes local touts and muscled youth hooligans apply force for illegal fishing
- iii. Due to absence of committee at upazila level - the Upazila officials from both administration and technical sides are found not attached with any coordination or implementation of project activities.
- iv. The committee members can not participate in tendering for fishing due to lack of risk taking experience and financial incapability- as such deprived from fair price
- v. Availability of fish, presence of birds, volume of swamp forest and other aquatic lives are not observed as much as was during leasing period.
- vi. The misuse or over use of TH resources has increased and threatened the bio-diversity and environment of the area due to collusive understanding between some Ansar members and the fish poachers
- vii. Some of the IGAs products are found not profitable or easily marketable.
- viii. A lot of fingerlings and small fishes are lost due to large scale commercial duck farming in the Haor/beels during breeding season of fish.
- ix. No timely measure to check early or flash flood which causes loss of crops, aquatic plants and grass reeds and fishing difficult as well.

C. Sustainability and replicability of co-management system:

- i. The committee members are not yet well informed about the process of co-management or motivated and experienced enough to manage TH resources in a cooperative way. So, assistances and supportive monitoring need to be kept ongoing by both Govt and IUCN till committee leaders and people feel themselves well-equipped and confident.
- ii. The fishers/fish farmers are very poor and not yet financially sound enough to carry out their fishing activities.
- iii. Through introduction of similar committee, self-help credit formation and accounting system, proper use of haor resources, participatory monitoring and evaluation of their own activities, data base of village and household business, alternative IGA training etc could be replicated in other wetland management of Bangladesh keeping in conformity with topographic and socio-economic situations and local likes and dislikes of the community.

4.5 SWOT analysis of Co-management of TH resources:

- i. Strength, Weakness, Opportunities and Threats (SWOT) analysis has been approached to review some of the major internal strengths and weaknesses/constraints of the co-management and some of its opportunities and external threats towards community based sustainable management of Tanguar Haor resources and livelihood of TH community.
- ii. The team observed that members of project steering committee, IUCN officials and THMC members are proactive about co-management activities with exception to few
- iii. Most of VCC members, UCC and CCC representatives are found committed and urged to improve their livelihood and preserve TH resources, voice their decisions, developed sense of ownership, self dependency and self-saving habits etc. While at the same time, some violation of fishing norms by some members, fish poaching by outsiders, indifference of some of concerned officials, dropping out of memberships are demotivating towards co-management concept. More analysis is detailed in chap 4.

4.6 Recommendations

- i. Involvement of concerned govt. officials should be persistently maintained to sustain the spirit and confidence of Haor community towards co-management of Tanguar Haor.
- ii. Formation of Scientific Advisory Body and Tanguar Haor Management Authority should be made functional as soon as possible.
- iii. National wide awareness on TH resources should be telecast through TV channels.
- iv. Upazilla Management Committee may be formed to get UNO and Upazila UP officials more closely associated and motivated to oversee management activities of TH.
- v. Concerned ministry and agencies, local level private donors should be engaged for plantation of reed plants (hizal and karach), swamp forests, and other herbal plants.
- vi. Ansar members should be gradually replaced by more of community guards.
- vii. A lot of interested villagers who are willing to join VCC should be enlisted in VCC
- viii. Some sort of co-operative markets should be built in an easily accessible place so that fishers, farmers and traders could get more competitive and fair prices of their products.
- ix. In case of large scale commercial duck farming- ducks should be kept in the cages during 2- 3 months of breeding season of fishes.
- x. The committee people may be motivated to generate their own funds for making small drainage/outlets and small scale embankment for controlling flow of flood water.
- xi. Artificial feed for fish growth and highbred fingerlings especially curb fishes may be released in the haor water bodies.
- xii. To get a fair price for fishes- Bangladesh Fisheries Development Corporation may be involved to get the job of buying and selling fishes caught by fishers of the committee.
- xiii. Health facilities for treatment of common local diseases along with family planning services should be more intensified and extended to the remote portions of Tanguar Haor.
- xiv. Some more secondary schools, colleges and madrasha may be constructed as per local demand of the community.
- xv. Timely maintenance and repairs of embankments or sluice gate or other outlets should be ensured by the concerned district office.
- xvi. Submergible road networks within the TH area may be developed for easy access to remote markets and credit facilities.
- xvii. Training on IGAs should be more intensive and refresher courses may be introduced and be need based and be more profitable as well.
- xviii. Amount of loan money should be adequately provided as per need and volume of trade/business enterprise.

- xix. Specialized banking facilities may be introduced to supplement loan amount for more profitable investment in IG activities.
- xx. Survey may be carried out every year to examine depth and height levels of TH beds.
- xxi. Survey report on fish, birds, plants, fishing catching techniques, health hazards and sickness of the Tanguar people need to be done on yearly basis.
- xxii. The area of Tanguar Haor should be demarcated if physically or hydrologically viable and plausible
- xxiii. Beels and canals of Tanguar Haor and adjacent beels need to be dredged due to increased siltation and sulphur pollution at required interval.
- xxiv. Small scale fish processing industry and eco-park/eco-tourism may be developed if goes in conformity with Ramsar principle.
- xxv. More supervisory supports and monitoring of co-management activities should be ensured by IUCN and Partner NGOs to sustain the growing awareness, tempo and commitment of the co-management members.

4.6 Conclusion:

- i. It is evident from discussion with community and key implementers that conservation and restoration of mother fisheries, flow of migratory and inland birds, aquatic plants and reeds and swamp forests of the TH have improved.
- ii. Majority (98%) of the VCC members are better off than that of leasing period when only leaseholders along with some of their associates enjoyed the TH resources exclusively.
- iii. The project has helped the people to form a reasonable amount of funds from their own savings and share from the sale of fishes which also helped them to invest in profitable IGAs that consequently have reduced their dependency on fishing.
- iv. Some of the practices such as self-help savings/credit formation and accounting system, use of fishing norms, participatory monitoring and evaluation of their own activities, data base system for committee offices and members information etc may be replicated in other Haor/Wetlands of Bangladesh keeping in conformity with topographic and socio-economic situations and local likes and dislikes of the people.
- v. To sum up in a nut shell that if the strengths and opportunities towards improving the performance of co-management are more focused and reinforced and weaknesses within the project and possible external threats towards co- management are minimized- then it is reasonably expected that co-management may become more sustainable and time-tested for replication in management of other wetlands/haor resources.