

Evaluation Report

Name of the project

**Restoration and Conservation of Biodiversity in the Denuded Hills
of Banskali, Chittagong**

Implementing entity

Dhaka Ahsania Mission (DAM)



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1. Executive Summary

The hills of Banskhali, fall in the Kalipur Forest Range under Chittagong South Forest Division. The hilly terrain was once covered by thick semi-evergreen natural forests which now lie denuded due to overexploitation of forest resources by human. The hills are covered by bush of mitinga bamboo and other shrubs. Besides bamboos and shrubs, natural regeneration of numerous native tree species such as Amloki, Bohera, Batna, Dewa, Chapalish, Dharmara, and Pisle, as well as some medicinal plants such as Ulat Kombol and Tokma also occurs but they are cut at young stage by poor people of the surrounding villages who depend on the forests for their survival. In order to address the forest degradation problem and to reduce human dependency on forests, Dhaka Ahsania Mission (DAM), a Non-Government Organization, has been implementing activities of the project titled “**Restoration and Conservation of Biodiversity in the Denuded Hills of Banskhali, Chittagong**” funded by Arannayk Foundation since June 2009. An evaluation of the project activities was done on 31 December 2011 to assess the project performance against the set objectives by visiting the project field office and attending to presentation delivered by project staff on project performance, and by directly meeting project participant organizations and members in project field sites to gather their responses and views regarding achievements of project objectives. The current project area is located in the Sadhanpur Beat covering an area of only 190 ha. The objectives of the project were: (1) Reduce anthropogenic pressure on the denuded hills of Banskhali to allow natural; regeneration of the forest cover; (2) Establish a functional model for collaborative management system of the Banskhali denuded hills; (3) Strengthen capacity of the Co-management Council and Co-management Committees, and group members as envisaged under the Collaborative Management Model; and (4) Create alternative livelihood opportunities for the forest-dependent poor and extreme poor people to reduce pressure on the hills.

Core and buffer zones for project intervention were identified with help from Forest Department (FD), although reluctance of FD and ownership disputes of hills between FD and local people (and their resistance) were acted as deterrents in the process. 26 Forest User Groups (FUGs) were developed from the forest dependent poor with the total membership of 737 people. A baseline survey on status of vegetation in forests and homesteads and socio-economic profiles of the target communities revealed that Kanok, Goda, Chapalish, Dharmara, Barta, Amloki, Horitoki, Painnagola, Batna, Lotkon, Chatian and Civit were some of the plant species that were lost from the forests according to the local people. People were mainly dependent on daily labour and forest resource collection from the neighbouring forests. Mass awareness campaigns were organized through observance of World Days, community meetings with students of schools and madrasas, imams and puruhits, with general people in mosques and mandirs, and other participants to promote and propagate the concept of forest and biodiversity conservation. Besides meetings, loud speaker announcements, setting up of signboards and publication of leaflets were accomplished focusing on conservation and restoration of forests and communities’ role and responsibilities. In order to facilitate establishment of a functional collaborative management model, 26 self governing groups (FUGs) from 735 forest dependent people were formed, with each group belonging to a project intervention

village forming an apex body called Village Federation, and 3 such village level federations forming an apex body called Union Federation. To ensure a wider participation in co-management, 3 school based eco-clubs were formed by means of which the students met once a month in the school premises with teachers, local elites and FD representatives to discuss about natural resources conservation. Co-management Council and Committees were formed according to Government Gazette Notification. DAM facilitated regular coordination meetings among Forest User Groups, Village Federations and Union Federation members, and Forest Department. Capacity building trainings for Co-management Committee members, DAM staff and FUGs on organizational development were organized. Skill development trainings in tailoring, nursery development, bamboo and cane made handicrafts making, Improved Cooking Stove making and setting up and vegetable gardening for group members were organized. Group members identified AIGAs that are suitable for them, such as, seasonal vegetable cultivation, mat making etc. Loans from RLF (made from project grant and group members' savings) were sanctioned to 127 members for need-based IGAs. Seeds of vegetables were distributed 2 times to 697 members and 4400 seedlings of indigenous plant species were also distributed to them. Besides, 151 Improved Stove (Bandhu Chulas) were activated in the project area, and 176 more Chulas distributed to others. Awareness-raising campaigns for various categories of general people have helped to make them aware of the importance of forest and biodiversity conservation, and now they are taking part in all project activities. According to project report, 60% of the forest dependent people under the project support have stopped visiting the hills for resource extraction. Adoption of Bandhu Chula has helped many to decrease their dependence on fuelwood which in turn has helped young saplings of forest regeneration to survive and thrive. Some of the AIG support activities, such as, vegetable cultivation, handicraft production, pottery, and small trade using loans from RLF already provided benefits to the participants and therefore improved their livelihood. Successful development of FUGs and Co-management body formations in different tiers, and improved responsibility and enhanced role playing of members at all levels after capacity building trainings implies a sound institutional development process that has created capable leadership at all tiers. It appears that some of AIGAs such as vegetable cultivation, handicrafts making may sustain beyond project phase-out phase provided that adequate input supports are available from government agencies and NGOs.

Forest regeneration (of seedlings) in project core zones are being hampered- a few people who are not related with project (may be forest encroachers coming from outside) are damaging the seedlings in far-flung corners. Some suggested that project impact zone should be re-determined so as to include all way from Pukuria to Bailchari. Many group members in the hills suffer from safe drinking water and safe/sanitary latrine problems which DAM project did not address adequately. Co-management Council and Committees (CMCs) need to be made functional with active support from Upazila Administration, local elected village leaders and elites, and through placement of necessary funds. Most importantly, the project duration needs to be extended in order for a few significant works such as full functioning of the co-management model and implementation of plantation activities under FD component to be facilitated and brought to completion.

2. Introduction

2.1 Background information

The hills of Banshkhali, a part of the Arakan Range, fall in the Kalipur Forest Range under Chittagong South Forest Division. Kalipur Range, consisting of three Forest Beats- Kalipur, Shadanpur and Pukuria, covers an area of 2686 ha. The hilly terrain was once covered by thick semi-evergreen natural forests which now lie denuded due to overexploitation of forest resources by human. The hills are covered by bush of mitinga bamboo (*Bambusa tulda*) and other shrubs. Besides bamboos and shrubs, natural regeneration of numerous native tree species such as Amloki, Bohera, Batna, Dewa, Chapalish, Dharmara, and Pisla, as well as some medicinal plants such as Ulat Kombol and Tokma also occurs but they are cut at young stage by poor people of the surrounding villages who depend on the forests for their survival. These forest dependent people collect non-timber forest products (NTFPs) such as fuelwood, bamboos, sun grass, broom grass and medicinal plants from the forests. Of the wild species, wild boar, deer and jackal still exist in the area while tigers, bears, leopards, wildhogs, porcupines, some snakes and many birds are lost. Elephants frequently visit the area from the adjacent Chunati Wildlife Sanctuary. Elephants eat bamboo leaves, jackfruit, rice, banana (wild) and bottle gourd, often destroying peoples' properties. Destruction of forests has led to habitat loss of wild animals which is the main reason behind the attack on human properties by the wild animals. In order to address the forest degradation problem and to reduce human dependency on forests, Dhaka Ahsania Mission (DAM), a Non-Government Organization, has been implementing activities of the project titled **“Restoration and Conservation of Biodiversity in the Denuded Hills of Banskhali, Chittagong”** funded by Arannayk Foundation since June 2009.

2.2 Evaluation methodology

An evaluation of the project activities was done to assess the project performance against the set objectives. For this purpose, project field office was visited on 31 December 2011. At the beginning of the field visit, a snapshot view on the project activities and achievements was given by the Field Coordinator, Mr. Borun Barua through a Powerpoint presentation at Kalipur Forest Range Office in presence of the evaluator and stakeholders from Forest Department and leaders of the local project participant organizations (Community Based Organizations). A discussion session followed the presentation in which various issues regarding project objectives, activities and their corresponding outcomes were addressed by the stakeholders. Afterwards, two field sites such as Purba Duaripara and Purba Bailgaon (Ashrayan Prokolpa) were visited so that the evaluator could directly talk to the general project participants and observe the project activities at the field level. This, besides helping direct observation of the project field activities, also helped to compare among the statements provided by the project management staff, key stakeholders, community leaders and general participants with regard to some project activities such as organizational/institutional capacity building, efficiency in alternative income generation (AIG), awareness about forest conservation etc. that cannot be fully judged in a single visit.

3. Context and Objectives of the Project

The Forest Department (FD) started forest restoration programme in 521 ha of the denuded hills in the nineties through establishment of plantations involving both short and long rotation tree species under the Forestry Sector Project (FSP) but the plantation failed due to alleged destruction by local inhabitants, only few trees still standing in the hills in scattered manner. The participatory afforestation project (FSP) offers a benefit sharing scheme that provides for 45% of the final tree harvest to the participants (also harvest from thinning). The main reason for the failure of plantations, as many believe, is the lack of attention to arrangement of alternative income generating (AIG) activities for the project participants. Therefore, it was felt that concerted efforts are needed in order to get the forest and its biodiversity back in the denuded hills through raising people's awareness about the importance of forest regeneration, and creation of alternative livelihood opportunities for the forest dependent people. The current project area is located in the Sadhanpur Beat covering an area of only 190 ha. The objectives of the project were:

1. Reduce anthropogenic pressure on the denuded hills of Banskhali to allow natural regeneration of the forest cover.
2. Establish a functional model for collaborative management system of the Banskhali denuded hills.
3. Strengthen capacity of the Co-management Council and Co-management Committees, and group members as envisaged under the Collaborative Management Model.
4. Create alternative livelihood opportunities for the forest-dependent poor and extreme poor people to reduce pressure on the hills.

4. Project Activities and Outcomes

The project activities and their outcomes against each objective have been described below:

Objective 1: Reduce anthropogenic pressure on the denuded hills of Banskhali to allow natural regeneration of the forest cover.

Activity 1.1: Identification of core and buffer zones in the hills of Banskhali.

Outcome 1.1: Core and buffer zones for project intervention were identified with help from Forest Department (FD), although reluctance of FD and ownership disputes of hills between FD and local people (and their resistance) were acted as deterrents in the process.

Activity 1.2: Identification of target communities.

Outcome 1.2: 26 Forest User Groups (FUGs) were developed from the forest dependent poor with the total membership of 737 people.

Activity 1.3: Baseline survey on status of vegetation in forests and homesteads, and socio-economic profiles of the target communities.

Outcome 1.3: Akashmoni, Mangium, Garjan, Kat badam, Eucalyptus, Mahagoni, Bohera, Gamar, Buddo narikel, Chalta, Jalpai, Gab and Segun were found growing in the forests. Kanok, Goda, Chapalish, Dharmara, Barta, Amloki, Horitoki, Painnagola, Batna, Lotkon, Chatian and Civit are some of the plant species that were lost from the forests according to the local people. The people of the study area were mainly dependent on daily labour (for 50% of total family income) and forest resource collection from the neighbouring forests.

Activity 1.4: Observance of World Days for awareness about forest conservation.

Outcome 1.4: During observance of World Forestry Day (March 21, 2010) and World Environment Day (5 June, 2010) rallies and discussion sessions were organized in presence of all stakeholders including FD and other government officials, village leaders, students and general public through which importance of forest conservation and importance of natural regeneration were emphasized.

Activity 1.5: Organizing awareness meetings.

Outcome 1.5: Awareness raising meetings were organized for students in different schools and madrasas, for 70 imams from 22 local mosques and 30 hindu puruhits, for 400 general people in mosques and mandirs, and for 300 participants through 4 community meetings to promote and propagate the concept of forest and biodiversity conservation.

Activity 1.6: Loud speaker announcements, setting up of signboards and publication of leaflets.

Outcome 1.6: Day long loud speaker announcements were made in winter and spring seasons to prevent people from making fire in the forests. 12 signboards were installed in strategic locations to make people aware about the project intervention for forest conservation. 3000 copies of leaflets focusing on conservation and restoration of forests and communities' role and responsibilities were distributed.

Objective 2: Establish a functional model for collaborative management system of the Banskhali denuded hills.

Activity 2.1: Formation of Groups, Federation and Apex Body- forest dependent people were identified by project field facilitators by selecting those who frequent

to the hills for collection of fuelwood and other non-timber forest products (NTFPs). Groups in different tiers were formed out of those forest dependent people.

Outcome 2.1: 735 forest dependent people formed 26 self governing groups (FUGs), each group having a President, a General Secretary and a Treasurer. Key office bearers of all groups (President, General Secretary and Treasurer) belonging to a project intervention village formed an apex body called Village Federation consisting of a 9-member Executive Committee comprised of a Chairperson, a General Secretary and a Treasurer and 6 general members. 3 such federations have been formed at village level from among which a 9-member Executive Committee of an apex body called Union Federation was elected which comprised of a Chairperson, a Vice Chairperson and a Treasurer and 6 general members.

Activity 2.2: Eco-club formation involving youths.

Outcome 2.2: 3 school based eco-clubs were formed involving students from Banigram Sadhanpur High School, Sadhanpur Girls' High School, and Sadhanpur Palli Unnayan High School. The students met once a month in the school premises with teachers, local elites and FD representatives to discuss about natural resources conservation (20 meetings have so far been organized).

Activity 2.3: Formation of Co-management Council (CMC) and Co-management Committees.

Outcome 2.3: A Co-management Council was formed on 2 March 2011 in Banskhali for conservation of Sadhanpur Reserve Forests and its biodiversity according to Government Gazette Notification which is comprised of 61 general members including 3 advisors. Also a Co-management Committee was formed which is comprised of 31 members and 3 advisors. One meeting of the Co-management Committee was held on 15 May 2011 in which Committee Chairman (UP Chairman) appeared to be non-cooperative.

Activity 2.4: Meetings of Forest User Groups, Village Federations and Union Federation, and DAM coordination meetings.

Outcome 2.4: 26 FUGs each meet once a month to discuss about the goals and objectives of the project, their duties and responsibilities, issues relating to restoration of hill resources and livelihood development. 126 FUGs and 75 Village Federation and 9 Union Federation meetings were held through which group cohesion increased significantly. Besides, DAM conducted coordination meetings with FD (16 such meetings) and other local government officials to foster close cooperation between DAM and all relevant stakeholders and to share issues regarding protection of core zone, buffer zone identification, encroachment, and co-management approaches.

Objective 3: Strengthen capacity of the Co-management Council and Co-management Committees, and group members as envisaged under the Collaborative Management Model.

Activity 3.1: Orientation and capacity building training for DAM staff.

Outcome 3.1: Orientation, capacity building and skill development trainings (a total of 6) were organized for DAM staff between October 2009 and April 2011 to train them on the philosophy, strategies and operational methodologies of the project. Besides, 27 staff coordination meetings were held to promote better understanding of the project programmes.

Activity 3.2: Capacity building training for the FUG members on organizational development.

Outcome 3.2: 1 Capacity building training session for the FUG members on organizational development was held.

Activity 3.3: Capacity building of Co-management Committee members and their visit to forest sites.

Outcome 3.3: A day long workshop on co-management for newly formed committee members was held on 3 March 2011 at Banskhali Upazila Complex which was attended by 28 members which was believed to have generated positive attitude among members towards forest protection and biodiversity conservation. Members were taken to Core Zone forest sites to see for themselves the status of forest regeneration which was believed to have generated in them positive attitude towards supporting forest conservation and help taking proactive role against forest destruction.

Activity 3.4: Skill development training of group members.

Outcome 3.4: 16 Females participated in tailoring training for 15 days, 9 males and 2 females in nursery development training for 1 day, 16 females in bamboo and cane made handicrafts training for 10 days, 2 males in Improved Cooking Stove making training for 2 days, and 100 participants in vegetable gardening orientation training.

Objective 4: Create alternative livelihood opportunities for the forest-dependent poor and extreme poor people to reduce pressure on the hills.

Activity 4.1: Identification of alternative income generating activities (AIGAs) and use of Revolving Loan Fund (RLF) to support the activities.

Outcome 4.1: Group members identified AIGAs that suit them such as seasonal vegetable cultivation, mat making etc. RLF was made from project grant of Tk. 1,50,000.00 plus group members' savings of more than Tk. 1,00,000.00 from which loans were sanctioned to the members on a priority basis determined by needs (members who lacked resources were considered eligible for getting loans). 127 members (120 females and 7 males) received RLF.

Activity 4.2: Distribution of seeds for vegetable cultivation.

Outcome 4.2: Seeds of vegetables were distributed 2 times to 697 members (630 females and 67 males).

Activity 4.3: Distribution of indigenous plant species for homestead and buffer zone plantations.

Outcome 4.3: 4400 seedlings of indigenous plant species were distributed.

Activity 4.4: Activation and distribution of fuel efficient stoves (bandhu chulas).

Outcome 4.4: 151 Bandhu Chulas were activated in the project area, and besides these, 176 more Chulas were distributed to others.

5. Impacts: Awareness and Capacity Development, Livelihood, Institutional Development and Forests and Biodiversity Conservation

Major impacts of the project on participants and their surrounding area are discussed below:

- 1. Capacity development of the established CBOs and Co-management committee-** Training provided on organization management and financial management and organization of regular group meetings helped group members to learn procedures of office management and bank account operation which now they can apply efficiently. Besides, skill development trainings provided on tailoring, nursery development, bamboo and cane made handicrafts making, Improved Cooking Stove making, and vegetable gardening have come of use to the participants as they can reap benefits by applying the techniques for themselves. Capacity building training for Co-management Committee members has helped the members to develop to a positive attitude for forest conservation.
- 2. Awareness about forest and biodiversity conservation-** Awareness raising meetings conducted for students in schools and madrasas, for imams and puruhts, and for people attending mosques and mandirs have helped to make people aware of the importance of forest and biodiversity conservation, and now they are taking part in all project activities. Formation of eco-clubs among schools students has helped to develop responsibility of students and teachers alike for forest conservation which also brought in FD officials and elites to a close contact with educational institutions for a binding relationship for joint responsibility of forest conservation stewardship.

Loud speaker announcements against making fire in the forests have contributed to reduced forest fire incidences. Also signboards and leaflets helped an increased awareness development among general people regarding forest regeneration.

- 3. Reduction in forest dependency-** According to project report, 60% of the forest dependent people under the project support have stopped visiting the hills for resource extraction, and visits to core forest zone by resource extractors and vested interested groups have been reduce to almost zero. Adoption of Bandhu Chula has helped many to decrease their dependence on fuelwood which in turn has helped young saplings of forest regeneration to survive and thrive. Besides, AIG support has helped a percentage of the participants to keep away from going to forests for collection of forest products for earning income.
- 4. Establishment of RLF and its utilization for AIG activities-** RLF funds were created by each of the 3 village level Federations through members' savings and project contribution. Loans from the RLF not only helped the needy members to start AIG activities, but also strengthened group capacities in managing revolving fund operating systems. There was a demand for increasing the size of the Project contribution to the RLF so that project participants can engage in all those AIG activities related to the kinds of trainings they have received from the project management.
- 5. Improvement in livelihood-** Some of the AIG support activities such as vegetable cultivation, handicraft production, pottery, and small trade already provided benefits to the participants and therefore improved their livelihood. However, marketing linkages need to be developed for selling handicrafts in order to make it a sustainable livelihood option.
- 6. Institutional Development-** Successful development of FUGs and FUG body formation in different tiers; formation of Co-management Council and Committees; improved responsibility and enhanced role playing of members at all levels after capacity building trainings, implies a sound institutional development process that has created capable leadership at all tiers, although disagreements exist between members that have been expressed in meetings.

6. Sustainability Potentials

It appears that some of the project activities such as AIGs regarding vegetable cultivation may sustain beyond project phase-out phase provided that adequate input supports (seeds, fertilizers) are available from government agencies and NGOs. Maintenance of revolving savings fund and their usefulness in community livelihood support activities will depend on the prudence of the leadership in the Executive bodies of Village Federations who will manage such funds and on the levels of cooperation to be extended from the group members. Forest and biodiversity conservation objectives could be fulfilled in the long run only if cooperation at multi-stakeholder levels including a continued support from FD

and local elites continues even in absence of the current Arannayk funded DAM project interventions.

7. Weakness/Areas that Need to be Strengthened

Pressure from politically affiliated people is intense in Co-management Committee which hinders smooth functioning of it. Mr. Mohiuddin Khoka, a social worker mentioned that forest conservation (regeneration of seedlings) efforts in project core zones are being hampered due to logistical problem- a few people who are not related with project (may be forest encroachers coming from outside- riverside and seaside areas) are damaging the seedlings in far-flung corners and they cannot be prevented from doing so because FUG members cannot reach them. Mr. Khoka suggested that project impact zone need to be re-determined so as to include all way from Pukuria to Bailchari. Because of delay in decision making regarding fund placement, Forest Department would be able to only achieve just a quarter of the targets of assisted natural regeneration/enrichment plantation to be implemented under Arannayk Funded project in 2012, and mode of afforestation is not yet determined. Many participants that received AIG support from project mentioned that input support (seeds, seedlings, fertilizers etc.) was inadequate. Project allocation of fund needs to be enhanced so that more input support can be provided to participants and an even distribution of such support can be ensured. Many group members in the hills suffer from safe drinking water and safe/sanitary latrine problems which DAM project did not address adequately.

8. Recommendations

Co-management Council and Committees (CMCs) need to be made functional with active support from Upazila Administration, local elected village leaders and elites, and through placement of necessary funds. Continued support from Forest Department is needed for the Co-management model to work. There is a need to prepare a new Forest Management Plan in which the *modus operandi* of community participation has to be detailed. However, DAM has to give effort in producing a suitable database that could be used for formulating a new plan. The group revolving fund (Revolving Loan Fund) needs to be made bigger in size through contribution of larger seed funding from the project so that it can cater to the increased demands of AIG support from the group members for durable enterprise development. While helping participants with AIG support, the project personnel should take into consideration each participant's requirement of money to sustain his/her daily livelihood needs as any shortfall in income may drive the person to earn additional income by extracting forest resources which means deterioration of forest resources, and that will act against the achievement of the project objective of forest and biodiversity conservation in the long run. Food security needs of group members who choose 'hatpakha' making as AIG should be looked after particularly for the months that follow after Baishakh when Hatpakha sale is almost zero. Many members would like support towards purchase of rickshaw vans for doing floating business with agri-products they grow with project support, with some others wanting support towards poultry and livestock-rearing. Many argued that there are still quite a number of eligible forest-dependent people who need to be brought under project group formation process so as to

ensure better achievement of forest conservation objective. Exposure visits for the group members should be arranged for enrichment of their knowledge about forest conservation. Most importantly, the project duration needs to be extended in order for a few significant works such as full functioning of the co-management model and implementation of plantation activities under FD component to be facilitated and brought to completion.