

Evaluation Report

Name of the project

Homestead Agroforestry through Improved Management Practices

Implementing entity

PROTTYASHI



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1. Executive Summary

Most of the inhabitants of the areas near Sitakund and Mirsarai Forest Ranges under Chittagong North Forest Division live beside the hill forests and a large number of people are directly and indirectly dependent on the forest resources. They are dependent on forests mainly for fuelwood and other forest resources such as bamboos, phul jharu, sun grass etc, and they cultivate forest land to grow cash crops. Overexploitation of forest resources and erroneous cultivation techniques in the hills cause a huge loss of plant and animal diversity in this area. Moreover, people plant exotic fast growing trees in their homesteads and around farmlands for quick return. In order to address the forest land degradation problem and conservation of biodiversity including native flora in homesteads, PROTTYSHI, a social development organization, working in Chittagong region has been implementing activities of the project titled **“Homestead Agroforestry through Improved Management Practices”** (May2007-April 2012). An evaluation of the project activities was done on 27 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. Therefore, Prottyashi started the Arannayk funded project with the following objectives: (1) Conservation of homestead biodiversity; (2) Restoration of endangered species in and around homestead; (3) Mass awareness creation on homestead biodiversity conservation; and (4) Promotion of alternative income generation activities.

512 households from 20 villages were selected from the project area for project intervention, and they were organized into 20 groups or Community Based Organizations (CBOs). A baseline survey conducted on the biodiversity conditions of the adjacent forests and homesteads and socio-economic conditions of the people generated information necessary for project programme planning. Most of the native valuable species namely, Gorjon, Sonalu, Kadam, Udal, Menda, Telsur, Buisal, Dhakijam, Puti jam, Kui jam, Gab, Kau, Damul, Lota Am are almost extinct from the neighbouring forests that led to extinction of wildlife species like bear, elephant. Income from agriculture dominates over other sources for the households in the project area. Collection of group savings from CBOs was done to raise funds which were added to the project grant to constitute a Revolving Loan Fund (RLF) that were utilized in Income Generating Activities (IGAs) such as mat making, vegetable cultivation, dairy, poultry etc. by the members, and bank accounts opened for maintaining the savings. Project participants benefitted from trainings provided on vegetable cultivation, improved poultry rearing, mushroom cultivation, integrated pest management, making and use of improved Chula and improved management of homesteads. 30,000 seedlings of different species (69 species) including some endangered tree species were distributed among the participants in the project area for planting in the homesteads. Awareness raising campaigns on tree plantation and nature conservation through community meetings, tree fairs, using signboards and posters, staging folk songs on indigenous trees, planting trees in public places were organized. PROTTYASHI provided seeds of some vegetables for planting around homesteads and crop fields. The project also

helped farmers in setting up of permanent composts plants to discourage use of chemicals. Improved Chulas (stove) were distributed to save fuelwood and ensure healthy cooking.

Despite project efforts to create awareness regarding forest conservation, awareness among some of the project participants about the importance of forests and its biodiversity (including wildlife) in environmental conservation did not appear to be satisfactory. Some participants also did not show much interest in planting trees in their homesteads. Project management did not undertake any special studies to assess reduction in forest dependency of people after project intervention. Loans from the RLF helped some of the needy members to benefit from the IGAs such as vegetable cultivation, handicraft production and operation of agricultural machineries. Many participants that received IGA support from project mentioned that input support (seeds, seedlings, fertilizers etc.) was inadequate and not evenly distributed. There was a demand for increasing the size of the project contribution to the RLF to expand support towards IGAs. Unfortunately, capacity building efforts for organizational development of the groups appeared to be poor. The RLF concept to support for IGAs may continue beyond project phase-out depending on the prudence of the group leadership. Although homestead agro-diversity improved in a few cases, agroforestry diversity did not appear to have improved much. Roadside plantations were established by a few members, but due to ownership conflicts the seedlings were uprooted by unknown people. Forest and biodiversity conservation objectives could be fulfilled in the long run only if cooperation at multi-stakeholder levels continues, particularly cooperation from FD must be sought so that people get motivation for involving in forest biodiversity conservation efforts.

2. Introduction

2.1 Background information

Most of the inhabitants of the areas near Sitakund and Mirsarai Forest Ranges under Chittagong North Forest Division live beside the hill forests and a large number of people are directly and indirectly dependent on the forest resources. The people who are mostly dependent on agriculture for livelihood without access to any other occupations are more dependent on forests than those who have secondary sources of income such as business, office/factory jobs. They are dependent on forests mainly for fuelwood and other forest resources such as bamboos, phul jharu, sun grass etc, and they cultivate forest land to grow cash crops. Overexploitation of forest resources and erroneous cultivation techniques in the hills cause a huge loss of plant diversity in this area. Moreover, people plant exotic fast growing trees in their homesteads and around farmlands for quick return. Populations of native tree species are on the decline both from reserved forests and homesteads. Homesteads are getting divided into smaller areas to accommodate for the vast population growth, and at the same time people are setting up mills and factories by destroying hills, natural forests and locally available trees. In order to address the forest land degradation problem and conservation of biodiversity including native flora in homesteads, PROTTYSHI, a social development organization, working in Chittagong region has been implementing activities of the project titled “**Homestead Agroforestry through Improved Management Practices**” funded by Arannayk Foundation since May 2007.

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 27 December 2011. At the beginning of the field visit, a snapshot view on the project activities and achievements was given by the Project Coordinator, Mr. Rajib Mahamud through a presentation in presence of the evaluator and leaders of the local project participant organizations (Community Based Organizations). A discussion session followed the presentation in which various issues regarding project objectives and their corresponding outcomes were addressed by the stakeholders. Afterwards, 3 field sites such as Islamabad, Nijtaluk and Hasnabad were visited so that the evaluator could directly talk to the general project participants and observe the project activities in the field. 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 income generation activities (IGA), awareness about forest conservation etc. that cannot be fully judged in a single visit.

3. Context and Objectives of the Project

In the recent past, various kinds of trees and animals abounded in the hills of Sitakunda and Mirsarai areas. However, due to excessive population growth the inhabitants of these areas became heavily dependent on the forest resource such as fuelwood, bamboo, timber and other products like phul jharu, sun grass etc. Excessive harvests have caused depletion of various indigenous plant species from these forests. Sitakunda and Mirsarai are well known for vegetable cultivation. There is a huge scope of growing vegetable crops along with various trees in the homesteads of the households living in the margins of the hilly areas. Also these areas support growth of huge amounts of patipata which offers bright prospect of entrepreneurships based on handicrafts such as mats, fans etc. made up using patipata. Therefore, Protyashi felt that there is a strong need to enhance forest conservation efforts at homesteads of the households living in the forest margins that should include raising people's awareness regarding biodiversity conservation through homestead agroforestry practices, creation of alternative income generation activities (IGAs) for the forest dependent people. The working area of project is comprised of 21 villages in Sitakunda and Mirsarai. The objectives of the project were:

1. Conservation of homestead biodiversity.
2. Restoration of endangered species in and around homestead.
3. Mass awareness creation on homestead biodiversity conservation.
4. Promotion of alternative income generation activities.

4. Project Activities and Outcomes

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

Objective 1: Conservation of homestead biodiversity.

Activity 1.1: Selection of project area and participant households - Area selection was done through reconnaissance survey and household selection through community mobilization.

Outcome 1.1: Initially 10 villages from Sitakunda and Mirsarai were selected for project intervention, later it expanded to 20 villages. 512 households were selected from the project area.

Activity 1.2: Formation of Groups through Focus Group Discussions (FGDs)- FGDs with target people and community leaders were conducted to form groups.

Outcome 1.2: Through FDGs information related to households' living standard, their income source, status of biodiversity and endangered species of their homesteads and surroundings were noted. The information was used to form groups (20 groups formed). Initially 5 households were taken for formation of each group but later household numbers were allowed to increase after consultation with the group members.

Activity 1.3: With help from expert consultants, baseline and questionnaire surveys in the project area were conducted to generate information for use in project programme planning.

Outcome 1.3: Information related to present biodiversity conditions of the adjacent forests and homesteads, socio-economic conditions of the people of the project area was revealed through the baseline survey. Most of the native valuable species namely, Gorjon, Sonalu, Kadam, Udal, Menda, Telsur, Buisal, Dhakijam, Puti jam, Kui jam, Gab, Kau, Damul, Lota Am are almost extinct from the neighbouring forests that led to extinction of wildlife species like bear, elephant. The diversity of the regenerating plants is good in Sitakunda (26 species) compared to Mirsarai (9 species). Jam, Bhadi, Bohera and Boropata are regenerating in greater percentages in Sitakunda while Teak, Goda, Dharmara and Gamar are regenerating in greater percentages in Mirsarai range. Households in Mirsarai responded that Tentul , Kao, Amra , Chalta and Tal are the main species that are lost and in Sitakunda, Silkoroi , Bahera, Jam and Ata are the main species that are lost from their homesteads. Income from agriculture dominates over other sources for households in the project area.

Activity 1.4: Collection of group savings from CBOs was done to raise funds that can be utilized in IGAs by the members and a bank account opened for maintaining the savings.

Outcome 1.4: Each member contributed Tk. 10-20 per week to the savings funds which then was deposited in the bank account opened at a nearby bank. Pass

books were provided to the participants to keep record and maintain accountability. With the help of Arannyak foundation, PROTTYASHI provided Tk. 2,75,000.00 among the groups. Group members contributed similar amount to the fund which was then used by members as revolving loan fund (RLF) to use in different IGAs (mat making, vegetable cultivation, dairy, poultry etc).

Activity 1.5: Survey and documentation of the prevailing agroforestry practices in the project area were done to identify seasonal and annual crops grown in the homesteads and their associated tree species including climber-tree associations.

Outcome 1.5: PROTTYASHI provided seeds and seedling of different seasonal vegetables (eggplant, string bean, jhinga, korola, chili, cucumber, spinach, papaya, tomato etc) to its beneficiaries. Seeds were collected from BADC urban sales centre, Chittagong, and Upazilla Agricultural Extension Department provided necessary suggestion about advanced cultivation techniques for these species.

Activity 1.6: Trainings and information sharing events related to conservation and improved management of homestead biodiversity were organized.

Outcome 1.6: Project participants benefitted from trainings on improved homestead management provided by the local agriculture office.

Objective 2: Restoration of endangered species in and around homesteads.

Activity 2.1: Identification of endangered species in project area.

Outcome 2.1: Through the baseline survey it was found that the tree species such as Gorjon, Sonalu, Kadam, Udal, Menda, Telsur, Buisal, Dhakijam, Puti jam, Kui jam, Gab, Kau, Damul, and Lota Am already became rare or endangered in the forests of Sitakunda and Mirsarai.

Activity 2.2: Supply of seedlings for planting in the homesteads and its monitoring.

Outcome 2.2: 30,000 seedlings of different species (69 species) including some endangered tree species were distributed among the participants in the project area.

Activity 2.3: Establishment of plantations of endangered tree species in project area.

Outcome 2.3: A plantation of endangered native tree species, Civit, was developed by the members of “Rubber Dam Somobay Somiti” by planting 600 Civit seedlings obtained from the Institute of Forestry and Environmental Sciences, Chittagong University. The plantation appeared to be well managed.

Activity 2.4: CBOs/households were encouraged to identify niche/space for tree planting in the homesteads and community land, and CBOs were supported to facilitate planting of seedlings of endangered species.

Outcome 2.4: Prottiyashi conducted a survey on 35 participant households to assess the conditions of plant diversity in their homesteads after project intervention, and found a total of 48 plant species in those households.

Activity 2.5: Ensure different silvicultural activities (weeding, thinning, pruning etc) in the plantation.

Outcome 2.5: Project Coordinator (Rajib Mahamud) along with advice from Bangladesh Forest Research Institute staff ensures routine silvicultural activities such as weeding in Civit plantation.

Objective 3: Mass awareness creation on homestead biodiversity conservation.

Activity 3.1: Awareness raising campaigns through Community meetings

Outcome 3.1: In 2010-11 Prottiyashi started house to house campaigns during the plantation season (July-September) with a view to increase mass awareness regarding importance of native plants and their conservation. During the campaigns village conservation groups (VCGs) were formed. Each group arranged a community meeting with the villagers whereby they made them aware about the indigenous species.

Activity 3.2: Arranging various programmes on tree plantation and nature conservation in the project area to catch attention of mass people.

Outcome 3.2: Tree fairs were arranged throughout the project period at different places of the project area for drawing attention of the villagers about tree plantations especially of the indigenous tree species. Village leaders and elites, government officers as well as students visited the fairs. Video clips of nature conservation efforts captured with hand cameras were made with consultation of Arannayk Foundation (AF) to draw students' attention. Folk song programmes were organized in two places of mass gathering in the project area where songs prepared on indigenous tree plantations were sung.

Activity 3.3: Planting of tree species in the public places such as school premises and roadside.

Outcome 3.3: While students of Abul Kashem Girls High school visited the tree fair held at Barotakia, seedlings of endangered tree species were provided to them by PROTTYASHI. The teacher guided the students to plant the seedlings in their school premises. Villagers who bought seedlings from the fairs were guided to plant seedlings in roadsides.

Activity 3.4: Use of signboards and posters to promote agroforestry practices in the project area.

Outcome 3.4: Posters containing the themes of the importance of practicing agroforestry, planting of local tree species, and conservation of homestead biodiversity were made and designed in such a format that is not destroyed by rain or heat. 10 screen print posters were prepared with consultation of AF. These posters were hanged in those places (banks, Upazila office, schools and branch offices of PROTTYASHI etc.) where mass people usually gathered and easily attract the attention of passersby. Signboards were placed in some plantation areas to draw attention of the local people and to introduce them with the endangered tree species.

Objective 4: Promotion of alternative income generation activities.

Activity 4.1: Identification of income generating opportunities for the members of the VCGs in their monthly meetings.

Outcome 4.1: Group members gather 4 times in a month where, besides other topics of discussion, ideas regarding vegetable cultivation, mat making, and poultry rearing are shared among the members.

Activity 4.2: Provision of support with regard to alternative income generation.

Outcome 4.2: PROTTYASHI provided seeds of some vegetables for planting around homesteads and crop fields. The project also helped farmers in setting up of permanent composts plants to discourage use of chemical fertilizers in homestead plantings.

Activity 4.3: Organizing trainings related to specific activities.

Outcome 4.3: With the help of local agricultural office and other institutions, PROTTYASHI arranged trainings on vegetable cultivation, improved poultry rearing (organized in Mirsarai, where injections given to 200 indigenous poultry), mushroom cultivation (17 women in Sitakunda participated), integrated pest management, making and use of improved Chula or Bandhu chula (16 people participated) and improved management of homesteads. After getting these training, project participants applied their knowledge in the practical field.

Activity 4.4: Identification of Forest Resources Collectors (FRC) and motivating them to change their occupation, if necessary, by providing financial help.

Outcome 4.4: No visible outcome could be observed.

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-** Although no formal trainings on organization management, financial management were provided to project participants, they themselves developed capacity to organize regular group meetings, and knowledge of bank account operation.
- 2. Awareness about forest and biodiversity conservation-** In 2 (Islamabad and Nijtaluk) of the 3 sites visited, awareness among the project participants about the importance of forests and its biodiversity (including wildlife) in environmental conservation did not appear to be satisfactory. Land-use conflicts and lack of good relationships between local people and Forest Department, and alleged corruption of FD officials in forest land distribution were mentioned as the major reasons towards the apathy of general public for forest conservation. Apparently, project management has not adequately addressed these issues. The participants also did not show much interest in planting trees in their homesteads. However, participants in the coastal village of Hasnabad visited appeared to be much aware about the relationships between reduction in effects of natural disasters and existence of coastal green belts.
- 3. Reduction in forest dependency-** Project management did not undertake any special studies to assess reduction in forest dependency of people after project intervention so it was difficult for the evaluator to assess this. When some participants were asked about where they get the raw materials such as bamboo etc. for making handicrafts from, they appeared a little bit tricky in answering the question- they said they collected those from somewhere else, not from the forests. However, some participants opined that introduction of social forestry intervention by FD in the hills has been responsible for depletion of bamboo and minor forest products upon which local people used to depend much. They now have to move far inside the forests (from hilly terrains of Sitakunda-Mirsarai to those of Fatikchari) to collect whatever resources available there.
- 4. Establishment of RLF including group saving fund and its utilization for AIG activities-** 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.
- 5. Improvement in livelihood-** Some of the AIG support activities such as vegetable cultivation (for example, in Hasnabad), handicraft production (in Islamabad) and procurement and operation of agricultural machineries (in Nijtaluk) already provided benefits to the participants and therefore improved their livelihood. Marketing linkages developed for selling handicrafts have also helped initiating sustainable livelihood based on handicrafts.

6. Institutional Development: Institutional development is an all-embracing issue that appears to be in a fledgling stage at this moment, but which could gain momentum if the issues discussed above are given adequate attention by the project management.

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 who will manage such funds and on the levels of cooperation to be extended from the group members. However, many project participants contacted for interview by the evaluator showed strong determination to hold on to the RLF concept even after the project phase-out. Forest and biodiversity conservation objectives could be fulfilled in the long run only if cooperation at multi-stakeholder levels keeping FD as focal point and involving elites, political and village leaders in the process continues even in absence of the current Arannayk funded Protyashi project interventions. Local people cannot be blamed for their apparent reluctance to forest and biodiversity matters, rather various other stakeholders who control things from distances should come forward to motivate the common people and have them on board.

7. Weakness/Areas that Need to be Strengthened

Many participants that received AIG support from project mentioned that input support (seeds, seedlings, fertilizers etc.) was inadequate and not evenly distributed. 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. A few participants mentioned that more training sessions regarding AIG opportunities need to be organized so that an increased number of members can participate and learn about techniques that can improve their livelihood. Although homestead agro-diversity improved in a few cases, agroforestry diversity did not appear to have improved much. Roadside plantations were established by a few members, but due to ownership conflicts the seedlings were uprooted by unknown people. A few members argued that even if they wanted to plant seedlings in their homesteads, there were no spaces available. Apparently, the project management did not look into the matter seriously. Participants were not demonstrated about how to better utilize homestead spaces for continuing annual (seasonal) planting activities as a regular work.

8. Recommendations

Many members wanted to rear livestock in their homesteads which they think will bring more profit for them. Project management can arrange training and provide support for livestock rearing. Also agricultural input support needs to be increased initially to effectively engage the participants in seasonal vegetable cultivation. The group revolving

fund (Revolving Loan Fund) needs to be made bigger in size through contribution of seed funding from the project so that it can cater to the increased demands of AIG support from the group members. 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. Cooperation from FD and other influential stakeholders must be sought so that people get motivation for involving in forest biodiversity conservation efforts.