

Evaluation Report

Name of the project
Swamp Forest Restoration

Implementing entity
Center for Natural Resource Studies (CNRS)



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Executive summary

'Swamp Forest Restoration' project has been implemented by Sunamganj based NGO Centre for Natural Resource Studies (CNRS), with the financial and technical support from Arannayk Foundation, Dhaka. The main objective of the project is to ensure sustainable conservation of swamp forests in the haor basin of Bangladesh through effective participation and development of livelihood of poorer communities. While the specific objectives include:

- To promote community-based restoration and management of swamp forests in the haor basin
- To regenerate awareness and build capacity of communities including relevant stakeholders on the protection and conservation of swamp forests for the healthy nature and sustainable livelihoods
- To influence national policy, process and structures in favor of restoration and protection of swamp forests and conservation of biodiversity.

The project operates in two upazilas of Sunamganj district viz. Sunamganj sadar and Jamalganj. The project works in two-swamp forests - one named 'Gobindopur Bagh' under Sunamganj sadar upazila and the other is 'Rahimapur-Horihorpur Bagh' in Jamalganj upazila. Both the forest were found semi-degraded and the people living in these haor area are poor. The project activity included, 1) formation Community based organization (CBO), PIC, organize community meetings, 2) plantation of Hijal-Korocho in open haor and manage of the plantation, promotion of timber, fruit and non-timber species at the homestead level, 3) awareness raising activities on wetland biodiversity conservation, 4) organize training programme on organization and development, 5) formation of revolving fund and training on different IGA activities and influence national policy, process and structure in favor of restoration and protection of swamp forest. Duration of the project was June 2009 to May 2012. An evaluation of the project activities was made through reviewing project documents and annual & project completion reports and conducting field visit, Focus Group Discussions (FGDS) with project staffs and community members.

Overall performance of the project based on progress in implementation of the project activities was found at the satisfactory level. Formation of the community groups and project Implementation committee, women's participation in the committee, and initiative taken by the committee for registration, etc. showed good indications of institutional development in the community. From the 7 villages of Jamalganj Upazilla and one village of Sunamganj sadar Upazilla CNRS selected 250 landless, small and marginal farmers including 21 women as direct beneficiary and received loan from the organization. CNRS formed two community based organization with 11 members of executive committee in Jamalganj and 12 members executive committee from Sunamganj Sadar Upazilla and the main responsibility of CBOs is to better provide protection of the bags. Community group meetings were held once in a month, forest conservation and development issue was also discussed in every meeting.

To create access of the poor community members' through AIG fund CNRS has established a revolving fund from the project and initiating a participatory saving program (BDT 20-50/month)

from the group members. Normally loan was sanctioned for 6 months and installment was recovered in the meeting. Different AIG activities undertaken by the groups were nursery establishment, homestead gardening, poultry and duck rearing, cow rearing (milky cow), small village shop and homestead tree plantation. CNRS organized 7 training programmes on vegetable gardening, 6 training programmes (in each site) on Organizational and Leadership development, Forest conservation management, planning and organizational capacity development for CBO members, and CBO capacity building on organization and co-management, 2 half day (in each site) long training programmes on account management and fund utilization.

CNRS observed World environment day, Forest Day, World wetland day and Earth day observation, community people, government administrative, teachers, students were present. The CBOs organized folk song and folk theatre performance at Jamalganj and Sunamganj sadar upazilla. Both the performances were organized on awareness building on conservation of Hijal-Koroch forests. The local community leaders were also participated in the performances.

Community Groups took lease 55.65 acre land from 126 land owners of Gobindapur village and 109.63 acre khas land from Deputy Commissioner, Sylhet on a 10 years agreement basis. CNRS planted saplings of Hijol and Koroch in two project sites at 49 acres (22 acres at Gobindapur site and 27 acres at Rahimapur-Hariharpur site with Hijal and Koroch. Survival percentage of Koroch (73.13 %) is better than Hijal (26.64 %). The plantations need good management so that the seedlings attain a reasonable height and can overcome the stress of coming flood. October-November is the best time for planting, at that time soil holds moisture and saplings gets a better chance of survival after planting. There is scarcity of obtaining saplings of Hijal and Koroch for restoration programme, on the contrary natural regeneration is not possible as wetland of this area is deforested earlier. A Root sucker has been used for the plantation programme. The nursery techniques of this two species is not well developed, concern NGO collect the samplings from other distance areas through vendors. The project initiated Murtha (Patipata) at the homestead level. The community people conserved the existing naturally grown cane (*Calamus sp.*) stands at the Rahimpur-Hariharpur bag and further extended the cane cultivation at the homestead level also. They also introduced economic and medicinal plants like Arjun, Basak and Chikrassi at homestead level.

Level of awareness on biodiversity and forest conservation is not same among the general community and project participant, and needs to be developing further involving Upazilla level stakeholders. Promotional activities done so far were not sufficient to increase awareness among the local community people. The community people of the area especially at Jamalganj are very poor, and have limited access to the local natural resources. They need more resource input and technical assistance to carry on the organization. If the project ends, their access to technical knowledge and organizational capacity building will be limited. Therefore, further support is needed for the groups so that achievements made so far can be sustained and furthered, until the groups achieve self sufficiency. Center for Natural Resource Studies (CNRS) has been working with many funding agencies on livelihood improvement and natural resource management. CNRS has a good base with facilities of office and staff at haor district of Sunamganj and its Sub-districts. Community organizations have leased private and khas land for 10 years and only part of the land has been planted with Hijal and Koroch. Therefore, the remaining areas may be able to be planted if they are supported with fund and technical

support. However, considering progress and achievements of the project activities and the fact that CNRS has acquired some skills and knowledge in the field biodiversity conservation activities working with communities, CNRS can contribute in making further progress in the wetland restoration programme. Therefore, it is suggested that the project activities should be continued for 2-3 years.

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1. Introduction

The wetlands of Bangladesh located mainly in the North-eastern region have a great ecological, commercial and socio-economic importance. The wetlands are recognized as containing very rich components of biodiversity of local, regional and national significance. The forest resources (swam and reed land plant) in the haor area have no proper conservation and management techniques, for which those are declining gradually. Despite a growing awareness of the need of protecting the environment, degradation has occurred rapidly during the last three decades. As a result, country's ecology has been damaged, forests depleted, wetlands destroyed, and biodiversity of the wetlands considerably degraded. Due to the excess pressure from overpopulation, the wetlands are also under serious threat with most of it being encroached upon by the local people. In recent years, as a direct consequence of agricultural expansion, many wetlands have been shrunk or disappeared. Such degradation has brought about a loss of biodiversity, reduction in fish habitat and loss of wetland-based flora that are a valuable source of a wide range of non-timber forest products (NTFPs).

Most of the wetland forests are located in Sunamganj and Netrokona district rich with two major species Hijal and Koroch along with many associated species is now almost devoid of any natural forest except in some small areas. For the last few years there has been unplanned harvesting of branches of trees, as a result destruction of the remaining natural swamp forests occurred seriously. However, some NGOs like CARE, CNRS and Forest department, IUCN, Department of Fisheries has come forward for restoration of these forests. But the establishment of new plantation is not enough when compared with harvesting and destruction of naturally grown trees. Centre for Natural Research Studies (CNRS) received financial and technical support from Arannayk Foundation (AF) to identify in creating mutually supportive links between human well-being and wetlands management with respect to poverty reduction of local communities and wetlands conservation. During the three year (2009-2012) project period, SUS implemented biodiversity restoration and income generating activities (IGA) with the participation of local communities for achieving objective goal.

From the Terms of Reference, the objective of this report is to evaluate, assess the completed project 'Swamp Forest Restoration' implemented by 'Centre for Natural Resource Studies' (CNRS) and funded by Arannayk Foundation (AF). The aim of this evaluation is to determine the relevance and fulfillment of objectives, and the efficiency, effectiveness, impact and sustainability of the project. The review was largely based on the information produced by the project, interaction with communities, stakeholders and project staff. A Field visit to 'Centre for Natural Resource Studies' at Sunamganj was conducted in 04-06 January, 2012 (Annexure-1). The field visits involved meetings with key project personnel and with key stakeholders in the respective areas. It also involved focused group discussion and interaction with men and women of disadvantaged group organized and supported by the project.

2. Context and objectives of the project

Arannayak Foundation (AF) has responded positively by taking initiatives to support restoration and sustainable management of swamp forests in the north-eastern part haor basin areas of Bangladesh. Center for Natural Resource Studies (CNRS) supported the goals and objectives of Arannayak Foundation (AF) and given the responsibility to restore two semi-degraded patches of swamp forests in Sunamgonj district. The project operates in two upazilas of Sunamgonj district viz. Sunamgonj sadar and Jamalganj. The project works in two-swamp forests - one named 'Gobindopur Bagh' under Sunamgonj sadar upazila and the other is 'Rahimapur-Horihorpur Bagh' in Jamalgonj upazila. Both the forest were found semi-degraded and the people living in these haor area are poor.

The broad objective of the project is to ensure sustainable conservation of swamp forests in the haor basin of Bangladesh through effective participation and development of livelihood of poorer communities. While the specific objectives include:

- To promote community-based restoration and management of swamp forests in the haor basin
- To regenerate awareness and build capacity of communities including relevant stakeholders on the protection and conservation of swamp forests for the healthy nature and sustainable livelihoods
- To influence national policy, process and structures in favor of restoration and protection of swamp forests and conservation of biodiversity.

3. Project activities and outcomes

Activities and Outcome against Objective 1 (promote community-based restoration and management of swamp forests in the haor basin):

Activities and achievements in relation to objective-1 after the completion of the project period are as follows:

- At the beginning of the project CNRS shared the project goal, objectives, activities and area of project intervention with the local government (DC, UNO), local people's representatives (UP Chairman, ward members), land owners and community members.
- CNRS organized 10 discussion meetings where community people of 8 villages of Jamalganj and sunamganj sadar upzilla of Sunamganj district. Main objective of the discussion meeting is to collect information on overall situation of wetland forest, dependency of community people on swamp forests, impact of swamp forest degradation on local population. CNRS also collected key information from other projects working in this area
- CNRS selected two sites, which include 7 villages of Jamalganj upazilla (Rahimpur, Arshinagar, Chinamara, Sholachura, Gopalpur, Rajapur and Hariharpur) and one Village of Sunamganj sadar upazilla (Gobindapur). CNRS took lease 55.65 acre land from 126 land owners of Gobindapur village and 109.63 acre khas land from Deputy Commissioner, Sylhet on a 10 years agreement basis. CNRS planted saplings of Hijol

and Koroch in two project sites at 49 acres (22 acres at Gobindapur site and 27 acres at Rahimapur-Hariharpur site)

- CNRS collected base information (number of households, literacy, occupation, dependency on forest resources etc) of village profile. After discussing with the community people CNRS finalized two sites for restoration swamp forest species
- After selection of project area CNRS collected information on the existing trees (Hijal and Koroch) at Gobindapur and Rahimpur-Harirampur site (Annex-2)
- CNRS formed 4 PICs in the plantation site (for two years) and provided the overall responsibilities for restoration of degraded swamp forests planting with 40000 planting with Hijol and Koroch saplings during 2009 and 2010. PIC organized 11 meeting during these two years.
- During the project duration (1st June 2009 to 20th November 2011) CNRS planted saplings of Hijol (*Barringtonia acutangula*) and Koroch (*Pongmia pinnata* or *Millettia pinnata*) at two project sites (Gobindapur-22 acres and Rahimapur-Hariharpur-27 acres) in the year 2009 and 2010 under the direct supervision and monitoring of the PICs (Annexure-3). The plantations were managed by subsequent weeding and adding organic fertilizer for establishment and quick growth of the saplings.
- The project initiated Murtha (Patipata) at the homestead level. The community people conserved the existing naturally grown cane (*Calamus sp.*) stands at the Rahimpur-Hariharpur bag and further extended the cane cultivation at the homestead level also. They also introduced economic and medicinal plants like Arjun, Basak and Chikrassi at homestead level.



Fig-1: Homestead in the haor



Fig-2: Cow dung stick, leaves and grass used as fuel

Observation and learning

CNRS involved key stakeholders of the project area like local communities, people's representatives, and local government body prior to the project intervention. Different discussion meeting with the community people will help to undertake different activities on biodiversity conservation and poverty reduction through IGA. CBOs have been successful for getting lease of Khas land and also private land for restoration of swamp forest. They have established plantation with Hijal and Koroch. Survival percentage of Koroch (73.13 %) was found better than Hijal (26.64 %). They collected root suckers from a distance area (Darmapasha) and planted them immediately collecting from there. They followed clear weeding method for plantation management. CNRS also initiated planting medicinal plants, fruit trees and timber trees at the homestead level.

Comment

Pre-discussion workshop/meetings with different stakeholders are sufficient. CNRS had a target of planting 40000 seedlings of Hijal and Koroch. They had achieved 80% success with planting 31984 saplings of the above mentioned species. However, percentage of Hijal saplings planted were 44% and survival percentage was also very poor (26.64%). During the visit some vacancy filling activities was going on. The CBO members told that the month October-November is the best time for the plantation programme. Plantation management is satisfactorily good. However instead of clear weeding, line weeding method could be tried. Line weeding can reduce the cost of weeding and also may help in natural regeneration of other associated species. Along with Hijal-Koroch some other species like Pitali, Barun and Jarul could be tried in a small scale to assess their performance in inundated area. Quality saplings may reduce the mortality rate. A plantation journal should be maintained which will keep record of all the plantation activity. PIC has been formed from the CBO members; Upzilla level GO and peoples representative may also include in the PIC.

Activities and outcome of Objective 2. (Regenerate awareness and build capacity of communities including relevant stakeholders on the protection and conservation of swamp forests for the healthy nature and sustainable livelihoods)

Activities and achievements in relation to objective-2 after the completion of the project period are as follows:

- CNRS organized community level meetings to aware on the importance of wetland forest and its management problems like destruction of forest by grazing and other biotic interferences. Community members of different occupation attended the meetings and CNRS organized such 44 meetings where 2328 community people participated.
- CNRS formed two community based organization with 11 members of executive committee in Jamalganj and 12 members executive committee from Sunamganj Sadar Upazilla and the main responsibility of CBOs is to better provide protection of the bags.
- CNRS facilitated to organize 40 (out of 42 targeted) CBO meeting to discuss on their organizational capacity development, cash flow discussion and on forest management.
- CNRS organized targeted 7 training programmes for 150 project beneficiary on vegetable gardening with the support from Upzilla agriculture officer and the 148 participants were female. They also distributed vegetable seeds of 6 species.

- CNRS organized 6 training programmes in each site on Organizational and Leadership development, Forest conservation management, planning and organizational capacity development for CBO members, and CBO capacity building on organization and co-management at two project sites. Total 130 members participated in the training programmes.
- CNRS organized 2 half day long training programmes on account management and 2 trainings on fund utilization both at Jamalganj and Sunamganj. Both male and female members participated in the training programmes.
- CNRS supported 2 project beneficiaries, one at each site for nursery entrepreneurship development and organized 1 training with nursery development of locally important species and grafting of mango and boroi. Both male and female members participated in the training programmes.
- CNRS distributed 40 improved cook stoves at a reduced price to the most vulnerable members and mostly depend on bag for firewood.
- The CBOs organized folk song performance with artist from Rahimapur-Hariharpur Hijal-Koroch bagh Unnoyan Songothon at Jamalganj and Sunamganj sadar upazilla. Also they have organized folk theatre at the same venue with the help from a theatre group named as Bhandan. Both the performances were organized on awareness building on conservation of Hijal-Koroch forests. The local community leaders were also participated in the performances.
- CNRS installed 170 red alert flag to aware the fishermen, fishing boats and engine boat carrying passenger to understand the haor area and to restrict movement.
- CNRS observed World environment day, Forest Day, World wetland day and Earth day observation, community people, government administrative, teachers, students were present.
- Members of both the CBOs have deposited their savings in the banks, in addition of their savings Rahimpur-Hariharpur CBO have collected some funds from other sources.
- CBO of Sunamganj organized a coordination meeting with FD and discussed on different forestry practices.

Observation and learning

They have adopted different tool for awareness creation on the conservation of Hijal-Koroch forests. Folk song and Folk theatre performance were encouraging. Various discussion meetings among the different groups of local communities those who are not directly involved with the CBO were also carried out. Two CBOs with an executive have been formed at Jamalganj and Gobindapur site and two discussion meetings have been made with them during my visit. In the discussion meeting CBO members told that they received

Comment

A large number of female members were present at the discussion meeting at the Jamalganj; however some participant told that they are representing their husbands as their husband is working in the field. A satisfactory number of training programme have been organized in two years on organization and development (4 nos.), CBO capacity building and leadership development (4 nos.), forest conservation (4 nos.), vegetable gardening & nos.), nursery techniques (2 nos.) account management and fund utilization (half day for each). Further

training programme on organization and development, CBO capacity building is required. Training programmes on different IGA is not enough and needs to be further assessed.

Activities and Outcome of Objective 3. (Influence national policy, process and structures in favor of restoration and protection of swamp forests and conservation of biodiversity.)

Activities and achievements in relation to objective-3 after the completion of the project period are as follows:

- The CBO, Jamalganj got lease 109.63 acres of Khas land of Rahimapur-Harharpur bagh under Beheli and Sachna Bazar Union Parishad of Jamalganj upazila from DC Sunamganj for restoration and conservation of Hijal-Koroch forests. Under this agreement the community will have the right to use this khas land for 10 years. The benefit sharing percentage government 20%, CBO 10%, beneficiaries 53%, replanting 10%, Union Parisad 5% and CNRS 2%.
- The CBO, Sunamganj Upazilla got lease a private land for 20 years agreement. The benefit sharing mechanism is similar except that the land owner will get 20% benefit instead of government.
- 17 community members of CBO, Sunamganj participated in the road plantation programme of FD
- Both the CBOs have applied for the registration for their organization.

4. Impacts

The current and first phase of the project lasted only for three years (2009-2012), it may be too early to assess the impacts of the project during this review; however, it should be possible to determine some early trends towards realizing the following immediate effects.

Improvement of Livelihood

The evaluator's observation is that the project approach of integrating livelihood programme with conservation is very relevant to the context of the local level. Because the majority of the community people of project area mainly in Jamalganj are very poor who without additional incentives of improving their livelihood opportunities, would not have been able to give time to conservation activities. Because, only long time return from conservation programme is not appealing to them.

The revolving fund given to the project beneficiaries and development of their fund management capacities have created access to the poor project participant to small, interest-free loans for undertaking various alternative activities. The most common income generating activities under taken by the project participants include vegetable cultivation in their homesteads, cattle rearing, poultry farming, fishing, duck rearing, small trading etc. Income derived from these activities has been used to improve food security, primarily through improved access, with improvements in food consumption and dietary quality. Incomes have also been used to support health and education costs, and for building up savings. All the livelihood activities are not directly linked with the biodiversity conservation and restoration, some of them necessarily do not have link to the conservation but become necessary to undertake for the project implementation. Because, the revolving fund not only supported them for extra earnings, it has also strengthened the group dynamics and cohesion for their sustainable institutional development. The beneficiaries involved in IGA activities are mostly women and CNRS organized 17 discussions with women groups for undertaking various IGA activities. The rate of repayment of the revolving loan is encouraging and these can operate like micro-finance

mechanisms to sustain and expand the development of alternative livelihood activities of the groups. Beside the revolving fund, CBOs in the projects undertook participatory saving schemes. In the participatory saving schemes, the members of the CBOs deposit BDT 20 to BDT 50 per month to an account in the monthly meeting.

Increased Conservation activities and awareness

The project has made significant impact on environmental quality and conservation, it has started planting wetland species the project area and community awareness in this issue has been a major achievement. Center for Natural Resource Studies (CNRS) selected two haor areas of Sunamganj district for their project intervention and the areas are now almost devoid of any natural Hijal-Koroch forest. Thus restoration of the swamp forest in the open haor can provide an important ecosystem services to the people of the area- providing fuel wood, increasing fish production, acting as breeding ground for fishes. Beside the restoration of Hijal-Koroch in haor, the project has also contributed on homestead biodiversity conservation planting with timber and non-timber species and local capacity building on biodiversity. The different awareness creation activities among mass communities, different groups of people who consciously or unconsciously destroy or damage the forests and with local leaders will certainly have a positive impact on biodiversity conservation.

Organizational Development

Through community mobilizing the project has been able to get access to government Khas land and also private land. Center for Natural Resource Studies (CNRS) has formed two CBOs at two project sites and provided training with organizational development and management, account management, fund utilization and leadership development. They participate in conduct meetings for discussing conservation and IGA activities. The project has been able to increase the empowerment for women and involved in various Income generating activities. Sustainability of the impact that has been achieved so far is encouraging.

5. Sustainability Potentials

Sustainability of CBOs, cooperative and NGOs established and facilitated by the project is the main concern.

- During the project period (2009-2012) two community groups have been developed by the CNRS. Community people were found very active, a large number of women were found in the discussion meetings. But most of them opined that further project support was needed for planting trees. Sustainability of the groups is vital in sustain community conservation activity. The groups are very new to the concept of conservation; the groups (mainly in Jamalganj) are poor, illiterate and socially marginalized and have not been exposed to such organization before. They need more resource input and technical assistance to carry on the organization. If the project ends, their access to technical knowledge and organizational capacity building will be limited. Therefore, further support

is needed for the groups so that achievements made so far can be sustained and furthered, until the groups achieve self sufficiency.

- Center for Natural Resource Studies (CNRS) has been working with many funding agencies on livelihood improvement and natural resource management. CNRS has a good base with facilities of office and staff at haor district of Sunamganj and its Sub-districts. However, CNRS has to depend on donor agencies for funding to implement the various projects.
- Community organizations have leased private and khas land for 10 years and only part of the land has been planted with Hijal and Koroch. Therefore, the remaining areas may be able to be planted if they are supported with fund and technical support. However, the collaborative management or co-management will be effective only if the local communities obtain long term tenure with associated responsibilities roles as a manager and protectors of the resources.
- Proper management of the newly planted Hijal-Koroch plantation in the open haor area will help to establish a successful restoration process of wetland biodiversity and species diversity also will be increased for homestead plantation with fruit, timber and medicinal plants.

6. Weakness/ Areas that need to be strengthened

Findings of the strength, weakness, opportunities and threats of the projects have been analyzed through SWOT analysis and summarized below:

	Strength	Weakness
INTERNAL	<ul style="list-style-type: none"> • Internal implication like office set up, staff capacity of CNRS is satisfactory and the NGO having concern about local situation • Provision for capacity building for Staffs and CBO • Community groups attendance of group members in the group including women members is encouraging, good spirit of the CBOs • Access to land resources for the wetland forest restoration • Experience of NGO with other projects in the Haor area • Sufficient logistic support from NGO • Provision of capacity building for the project staff 	<ul style="list-style-type: none"> • Inadequate knowledge of establishment and management of Hijal-Koroch forest • Lack forestry professionals • Inadequate training on fund and organizational management for group members • Poor recording of group members' income from IGA activities • No systematic study on locally adapted species • Registration of the community groups has not yet completed • Bad communication system

EXTERNAL	Opportunities	Threats
	<ul style="list-style-type: none"> • Local government for administrative and legal support • Financial support from different programmes including Arannayk foundation on bio-diversity conservation • Opportunity of knowledge experiences sharing with other organisations working with CBOs and communities for wetland forest conservation or biodiversity • BAU,BARI,DAE,BFRI for supporting with technical and knowledge management • 	<ul style="list-style-type: none"> • Local elites mostly enjoy the resources • Poor access of land and other natural resources for the group members • Early flooding • Rice cultivation and grazing in open haor • Most of the areas remain inundated more than 6 months, very short time for the establishment of the saplings • Plantation is done in summer-irrigation required • Plantation of invasive alien species around the homesteads • Lack of knowledge for obtaining quality saplings for plantation

7. Recommendations

- To develop institutional and technical capacities of the project participants, CNRS could organize more training courses on organizational development and management (ODM) processes and technical skill development. Until the CBOs achieve satisfactory level of institutional development and management competences, the project implementing NGOs should have some degree of control on the banking operation of the CBOs, and leadership development
- Management partnerships for productive purposes (Agriculture, fishery, poultry) could be developed in communally owned, privately-owned and mixed-property territories involving the community members. But whenever management partnership involves with natural resource like restoration of biodiversity some consideration of the future not only present production, it inevitably needs to take measure for the preservation of environmental elements.
- A successful plantation establishment largely depends on the quality of the planting materials and on the proper plantation management. The quality of the planting materials depends on its genetic source and its physical characteristics-height, developed root system and vigor. Nursery techniques are well known for most of the hilly, village species including the exotics. But nursery techniques of wetland species are not well developed. CNRS established their plantation using mostly root suckers, while SUS has used seedlings in their plantation programme. Both types of planting materials are important, but there are some practical and theoretical difficulties which could restrict the use of root suckers in large scale plantation programme. One of the major reason why root suckers could not be used widely in the operational

planting is that saplings prepared from root sucker origin are always more expensive than the seedlings, but their use is only justified if the extra cost is outweighed by the increased survival rate after plantings in the field. Another problem of using root suckers may be the availability of abundant mother trees, and availability root suckers. Only few number of root suckers may be available from a single tree. Thus when the plantation programme is quite large, there may be scarcity of the root suckers. In intact plants root suckers (the production of shoots from roots) appear on the root system after the stems/branches are cut or the root systems are drastically disturbed. Therefore, the existing natural stands may suffer when excessive harvesting of root suckers is carried out. Thus it is very important to improve the nursery techniques of Hijal-Korocho. Technical backstopping is required for the establishment of nursery as an IGA activity for production of quality planting materials. The project could establish MTOs of some fruit trees.

- A plantation journal should be maintained which will record all the plantation activities carried out.
- Fuel problem could be solved providing improved stoves and encouraging locally adapted fuel wood species.
- Some 'Invasive Alien' species like Eucalyptus have been observed in this area which may crowd out native species through predation and alter the habitat. Therefore, some 'periodic flood tolerant' homestead species adapted to the area like Pitali, Kadam, Barun, Salix, Jam, Am, Bandarhola and some other species could be tried in the areas where the water remains for few months only. The species may also mitigate the fuel wood problem. Beside the timber species, planting fruit tree species in their homestead need to encouraged.
- While targeting the beneficiaries of the projects special emphasis on women's participation on access to resources and opportunities needs to be address.
- More promotional activities like, awareness meeting, workshop, special day observation, bill board, poster and leaflets with appropriate messages, etc. is needed for increasing awareness among community people. Frequent visit by project staffs to community households is required for motivating them in different activities particularly for IGA.
- Promising IGA activities should be capitalized
- NGO should be more careful for the management of the Hijal-Korocho plantation so that saplings reach a reasonable height and can adapt and survive in the flood.
- Providing access to the community members to no-commercial fishing resources such as monsoonal subsistence fishing, livestock grazing, duck keeping etc.
- An apex committee could be developed involving Upazilla level stakeholders

ANNEXURE

Annexure-1. Visit programme of CNRS (Sunamganj)

Program schedule for field visit of AF Evaluator team

from 04.01.2012 to 06.01.2012

Date	To	from	Component	Location	Participants
Day 1st					
04.01.2012	08.00	04.00	Leave Dhaka for Sunamgonj (timeframe may differ)		
04.01.2012	04.00	04.30	Refreshment		
04.01.2012	04.30	06.30	Meeting with SFRS Staffs	CNRS Sunamgonj office	AF, Evaluator team and SFRS staffs
Day 2nd					
05.01.2012	10.00	11.00	Community meeting	Rajapur	AF, Evaluator team, CNRS
05.01.2012	11.00	12.00	IGA follow up	Rajapur, Sholachura	AF, Evaluator team, CNRS, IGA implementers
05.01.2012	12.00	01.30	CBO meeting	Rahimpur, X-Chairman house	AF, Evaluator team, CNRS, community
05.01.2012	01.30	02.30	SWAMP forest visit	Rahimapur-Hariharpur Hijol-Koroch bagh	AF, Evaluator Team, CNRS and CBO
05.01.2012	02.30	03.30	Lunch	CNRS Jamalgonj Office	AF, Evaluator team, CNRS
05.01.2012	03.30	05.00	SWAMP forest visit	Matargawn/Binajura SWAMP forest, Matargawn, Fenarbak	AF, Evaluator Team, CNRS
Day 3rd					
06.01.2012	09.30	11.00	SWAMP forest visit	Gobindapur Hijol-Koroch bagh	AF, Evaluator team, CNRS
06.01.2012	11.00	12.30	CBO meeting	Gobindapur, Sunamgonj Sadar	AF, Evaluator team, CNRS and CBO
06.01.2012	12.30	01.30	IGA follow up	Gobindapur village	AF, Evaluator team, CNRS, IGA implementers
06.01.2012	01.30		Leave Sunamganj for Dhaka		

Annex-2: Information of old trees (Hijol-Koroch) exists at two project sites:

Name of species	Gobindapur bagh				Rahimapur Hariharpur bagh			
	No. of alive trees	No. of dead trees	Age of the trees	Height of the trees with canopy	No. of alive trees	No. of dead trees	Age of the trees	Height of the trees with canopy

Hijol	43	08	90-100yrs	15-20 feet	313	13	75	
Koroch	100	06	90-100 yrs.	10-15 feet	517	1	75	
Tomal	0	0			1	0	0	
Latim	0	0			1	0	0	
Total	143	14			832	14	150	

Annex-3: Saplings planted of Gobindapur and Rahimapur-Hariharpur Hijal-Koroch Bagh :

Sl. No.	Name of project sites	Total planted saplings (no)	Alive saplings till to date (no)		Total dead saplings (no)		Survival rate (%)	
			Koroch	Hijol	Koroch	Hijol	Koroch	Hijol
1	Gobindapur	14,089	8085	433	2723	2848	74.81	13.20
2	Rahimapur-Hariharpur	17,895	12007	768	4661	459	72.04	62.59
Total		31,984	20092	1201	7384	3307	73.13	26.64