

Name : Conserving Bio-diversity of Denuded hills of Dighinala by Indigenous communities

Objectives :

- ✚ Awareness raising of masses on forest and biodiversity conservation
- ✚ Inputs for restoration of tree cover and biodiversity conservation at location based forest extending sustainable management of the denuded hills.
- ✚ Improvement of livelihood through AIGA's of the community reducing for forest pressure.
- ✚ Capacity building of the communities and staff of resource organizations involved in forest conservation efforts.

Project background :

Anando implemented a project on Conserving Bio-diversity of Denuded hills of Dighinala by Indigenous communities at Dighinala, Khagrachari for the period from July 09 - June 2012 having resource from Arannayk Foundation, Dhaka. The project addressed bio-diversity conservation with alternative livelihood support to the forest and its adjacent dwellers creating one pilot site in the middle of Dighinala i.e. Vairofa Bridge Para and Gona para. The project dealt with 4 outputs such as community awareness raising on bio-diversity conservation, regenerating hill forest setting a pilot site on bio-diversity conservation encircling 35 hills (each hill covering >2 acres of sloping lands), livelihood support through IGA followed by credit support, networking & staff capacity building with budget around Tk. 60,000,00. Anando conducted its project operation having station at its Project office, Babu Para, Dighinala with 3 full time and 4 part timer staff members. The project continued up to 2012 including one year extension (*1st phase*). Basing field experience on it the project was extended to another 3 villages of Kobakhali Union following Farmer's to Farmers Extension Approach. The approach was continued up to March 2015. Starting this sort of bio-diversity project from 2009, it's almost passing its 6 years i.e. 4 years at starting place i.e. Vairofa Bridge Para at Merung Union, where Anando covered 35 fallen hills got excellent bio-coverage almost with all factors addressing uniform plantation, soil erosion, homestead space utilization, IGA through institutional approach forming group etc. However, in 2013 Anando project moved to 3 villages of adjacent Kobakhali Union following Farmer's to Farmers Extension Approach incorporating 20 Lead and 80 Associated i.e. 100 farmers in 100 new hills. The achievement found not much satisfaction, as the Lead Farmers are not much capable as well as just busy for themselves. So, it is felt again to adapt direct farming approach with individual farmers covering 100 denuded hills in 4 new villages in same Kobakhali. The project would be continued for 30 months i.e. up to September 2017 (*3rd phase*) expecting a remarkable impact utilizing 2 acres of hill and 25 decimal of homestead/ HH in remote and inaccessible areas like hilly Kobakhali at Dighinala, CHT-Khagrachari.

Rational :

Biodiversity, both wild and domesticated, provide a range of livelihood support to indigenous communities. Historically, indigenous women have been playing a key role in selection, conservation and management of domesticated biodiversity in Chittagong hill tracts primarily to meet the household food and nutritional security. However all over the country and also in CHT, biodiversity is facing serious threats from different human activities. Some of the major threats include: Tree felling in biodiversity rich areas, established brick field, poaching, human-wildlife conflicts, habitat loss, habitat fragmentation due to a variety of human actions, growing demand for fuel and fodder resources, and loss of crop and livestock diversity with the promotion of commercial agriculture and animal husbandry. Despite the multiple schemes for improving the livelihood of the vulnerable sections of the population, there has been no major effort for livelihood improvement, which recognizes and integrates the close linkages that the livelihoods of indigenous communities have with local biodiversity resources. These linkages are facing serious problems due to degradation of ecological systems, loss of traditional resource management practices and certain government policies. Biodiversity conservation efforts have tended to focus on specific species with almost total neglect of the basic issues of livelihood support to the local human population. Inadequate attention has been paid to the indigenous knowledge of communities, particularly of women, depending on biodiversity for livelihood, food, health and nutrition security.

Beneficiaries : Forest dependent communities (235 H.H)

Activities :

- ✚ Workshop on project impact (1st & 2nd phase) & lesson learnt followed by 3rd phase planning
- ✚ Motivational linkage through mass gathering (5th June, WED) & display boards setting environmental issues
- ✚ Formation of elite's forum (social leaders, school teacher, UP members, religious leaders etc) on bio-diversity conservation developing a management plan reviving local kingship association (Karbari/ Headman) etc.
- ✚ Development of communication material & field day observance: Photographs, video, posters and leaflets are prepared. Documents like feature, article are been prepared on the project activities for different meeting and workshops including field day observance in the last year.
- ✚ Inputs as planting materials fruit/ timber species for VCF/ a fresh pilot site
- ✚ Fuel wood plantation at HH level (boundary lines utilization) bamboo bush at canal dike.
- ✚ Follow up on hill plantation by different timber/ fruits species (2nd phase site only)
- ✚ Set up nursery emphasizing endangered indigenous hilly species
- ✚ Boundary lines utilization (BLU)

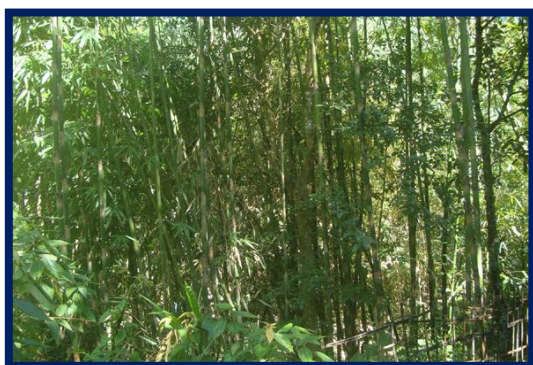
- ✚ Fore yard utilization
- ✚ Poultry rearing
- ✚ Cow rearing
- ✚ Vermi compost
- ✚ Vegetables cultivation
- ✚ Improved jhum practice through Multi-tier orchard (MTO)
- ✚ Vegetative propagation
- ✚ Improved cook stove (ICS)
- ✚ Sustainable hill farming by bamboo sucker
- ✚ Value chain analysis
- ✚ Organizational development management (ODM)
- ✚ Credit from savings fund
- ✚ Capacitate institutional forum on bio-diversity conservation (school & college mgt committee, management plan reviving local kingship association (Karbari/ Headman) etc CBOs etc.)
- ✚ Networking development : Developing a networking with other older biodiversity conservation bodies at inter district level.
- ✚ Promotion of best practices on bio-diversity conservation in CHT
- ✚ Study visit (home & abroad): Staff exposure/ training on value chain analysis, visit sustainable bio-diversity conservation approach etc.



Impact :

- ✚ Restored 235 previously denuded hills by creating forest coverage (area : 250 hectors).
- ✚ **206648** seedling/saplings of 26 native tree species has been planted by the 235 participants households.
- ✚ 27250 bamboo seedlings/cuttings have been planted at the hill base and at the stream bank.
- ✚ Champa, Chapalish, Garjan – three critically endangered native tree species were restored through plantation.
- ✚ Forest dependency of project participants is reduced by 60-70%

- ✚ Average annual income of project beneficiaries increased by BDT 25,000 – 30,000
- ✚ A Revolving Loan Fund(RLF) of BDT 16,00000 has been established through participants monthly savings and grants from Arannayk Foundation
- ✚ For investing in Alternative Income Generating Activities (AIGAs), every CBO member can take interest free loan up to BDT 25,000 for a year.
- ✚ Key alternative income generating activities are Multi-tier orchard, Vegetable cultivation, Paddy cultivation, Fish cultivation, Cow or pig rearing and small business etc.
- ✚ Fuel wood collection of project participants has reduced by 50% due to usage of Improved Cooking Stoves (ICS)
- ✚ Financial worth of project created bio-resources is now BDT 170 million which is expected to be increased as high as BTD 600 million within next 5 years.



Sustainability :

A relatively quick review of the project leads to the conclusion that income generation activities of forest user groups, with all the benefits that increased household income can bring such as

- Animal husbandry (e.g. cattle/dairy, goats, pigs, chicken/eggs, fish ponds)
- Cash crops (e.g. Paddy, Maize, Sugarcane, bamboo)
- Improved agro technology (Multi-tier orchard, Homestead boundary lines utilization, House cleaves, House roofs and Vermi compost)
- Handicrafts (Handloom, basket, brooms)
- Shops (e.g. tea shop, restaurant, groceries, dry goods)
- Automobile repair and auto parts shop

Additional benefits of the project identified female community participants included: unity and harmony, women's solidarity and empowerment, the credit it provides, savings and banking, land purchase, self confidents, no longer doing daily labour, access to business opportunities, linkages with other institution, education and literacy training, awareness and knowledge sharing, willingness to receive health care, use of toilets, increased school attendance, more responsible behavior by men. Now without further evidence, It can safely be concluded that

Anando interventions meet the test for environmental sustainability. New economic activities in which beneficiaries are engaged do not deplete the resource base and, to the extent they replace the need for jhum cultivation, they represent a net gain in natural resource conservation. The project's conservation component, acknowledged to have been less significant than anticipated, still resulted in protection for large areas of forest and watershed catchments. These developments seem likely to persist, particularly due to increased community involvement in management of the natural resource base. A small number of factors could threaten environmental sustainability. If income generation should stagnate or decrease, most households would definitely return to jhum as a source of livelihood. It remains a socially acceptable act. even through the environmental damage It causes is recognized.



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