Executive Summary

Biodiversity Restoration and Community Development Through Analog Forestry

This Falls Brook Centre project is designed as a three year program working with the Reventazón Model Forest in Costa Rica, the Atlántida Model Forest in Honduras and the Colinas Bajas proposed Model Forest in Dominican Republic. It will train for and support the implementation of activities which simultaneously address biodiversity restoration and enhance sustainable rural livelihoods. The project proponents are Falls Brook Centre, a Canadian sustainable community development and training centre, and the Ibero-American Model Forest Network (IAMFN), a regional network of 18 model forests throughout Ibero-America that is hosted by CATIE in Costa Rica.[1]

The purpose of the project is to establish a train-the-trainer program in model forests in the three countries (capacity building for change agents). Once that is completed, pilot biodiversity restoration sites will be established in the areas and a hands-on training program for campesinos (small landholders) will be delivered. The change agents will provide ongoing support to the campesinos as they implement biodiversity restoration projects on their own land. The project will also serve as a basis for developing the tools and linkages for expanding biodiversity restoration projects based on analog forestry throughout Ibero-America.

Analog forestry is an innovative agro-forestry system that explicitly links biodiversity restoration and the protection and enhancement of environmental services with meeting the immediate economic needs of the rural poor on a sustainable basis. The restoration project is designed to re-create the structure of the local natural forest ecosystem by planting trees and other plants that fulfil the ecological functions of the forest while simultaneously providing products for the family's nutritional or medicinal needs, or for processing and sale in the marketplace to increase family income. Local and traditional knowledge of plants, their role in the ecosystem and their role in meeting livelihood needs is an essential component of analog forestry. That traditional knowledge is combined with a scientific understanding of ecological succession and other species that could be safely added to a restoration project to provide additional non-timber products to contribute to family health and well-being. Biodiversity protection and livelihood issues are inescapably intertwined; reducing rural poverty also helps to reduce unsustainable land use and harvesting pressure on forests.

The analog forestry system, consistent with the values of the model forest program in Ibero-America, is predicated on the full participation of the rural community members in designing and implementing the projects. There is an explicit recognition of the need for full participation to make the project both relevant to the participating families and sustainable in the long term.

A key environmental service that is associated with this project is restoring and stabilizing hydrological services. Most rural landowners in these three countries rely on small springs and

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[1] For additional information on the project proponents, model forests and analog forestry please see the following web sites:
Falls Brook Centre - http://www.fallsbrookcentre.ca/english_home.htm
IAMFN - http://www.bosquesmodelo.net/index/index.asp
Analog Forestry - http://analogforestrynetwork.org/ or, http://www.rcfa-cfan.org/english/profile.12.html

brooks for water supply. Deforestation, whether for unsustainable timber harvesting or for conversion to low value pasture, results in a decline in the quantity of water from these sources as well as greater seasonal fluctuation. The analog forestry projects will re-establish and stabilize the availability of water to rural residents through better moisture retention in soils and reduced run-off. A restored forest also serves as effective filtration improving the quality of available water and reducing sedimentation.

A second key environmental service associated with enhancing biodiversity is increased resilience to climate change. On the one hand it helps to reduce the immediate impact of severe weather events such as floods and droughts; on the other it helps rural residents survive these events along with changing temperature and precipitation patterns by diversifying the sources of family income.

A third environmental service that has broad benefits is the sequestration of carbon. Part of the project includes establishing baseline data for biotic and abiotic features as well as baseline carbon sequestration data. It is beyond the scope of this project to develop payment for environmental services or carbon payment schemes, however the collection of baseline data would allow the project participants to benefit from such programs should they be established.

A biodiverse forest also contributes to enhancing landscapes thereby opening more opportunities for small scale eco- and ethno-tourism.

By the end of the initial three years it is planned that 30 to 45 change agents will be trained, pilot sites will have been established to support broader training, and that the change agents will in turn have trained approximately 100 families and will be supporting them in restoration work on their land. Counting the family members of the small land holders there will be approximately 500 direct beneficiaries. Indirect environmental benefits will spill over to all those living adjacent to the restored sites. It is estimated that there will be approx. 2,500 people receiving indirect benefits.

In addition to the training and restoration activities, the experiences of this project and the tools that will have been developed will be disseminated to the other Model Forests in the region and to other organizations that share similar goals of biodiversity restoration and poverty reduction. It is anticipated that the restoration activities in the areas where they have been initiated will be largely self-sustaining and that additional projects will be initiated in other areas.

Planning, as well as project monitoring and evaluation, will be based on a Results Based Management logic model and will be transparent. Reporting can be tailored to meet the needs of potential donors.

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