

Getting organised

An ITTO project in the Urumba Basin near the Peru-Ecuador border is assisting various groups to manage and reforest degraded land

by Alfredo Gaviria

Forest consultant

alfredo_gaviria@hotmail.com

THE Urumba Basin lies close to the border with Ecuador in the Peruvian Andes. Settled by migrant communities from the country's northwest, the Basin has undergone dramatic deforestation and large areas are now denuded and degraded. Of particular ecological concern are the small remaining areas of natural cloud forest, which occur in the region at altitudes of 1350–2000 m above sea level. At the same time, the communities that have settled there have few ways of generating income and agriculture is relatively unproductive.

In 1992 ITTO funded ITTO PROJECT PD 42/92 REV. 1 (F): 'Reforestation and sustainable management and utilization in the natural cloud forests of Jaen-San Ignacio', to be implemented by Peru's National Institute for Natural Resources (INRENA). This project commenced in 1994 and concluded in 1999 when it was superseded by a second phase, ITTO PROJECT PD 38/99 REV. 1 (F,1): 'Demonstration community forest management in the natural cloud forests of the Urumba Basin, San Ignacio', which itself concluded earlier this year. The project, commonly known as the Urumba project, was based in the small town of La Bermeja in the northeastern region of Peru near the Ecuadorian border.

The objective of the project was to raise the living standard of the communities in the Urumba Basin through their organisation and participation in the sustainable management of their renewable natural resources. To do this, the project facilitated reforestation activities on degraded and other agricultural land, the management and sustainable use of areas of cloud forest, and other community-based activities. It had three work components: a *forest training and extension* component to develop a dissemination and awareness program and a series of courses on forest techniques and community organisation, produce seedlings and establish plantations in areas adjacent to logging coupes; a *forest management* component, to manage and evaluate the plantations established under the first phase of the project, conduct forest inventories, establish and

Project activities promoted the creation and involvement of different local organisations that remain in place after project completion.

evaluate a growth plot, manage natural regeneration, and reforest logging coupes; and a *forest harvesting and timber processing* component, to harvest, process and market the timber products and to conduct timber-seasoning trials.



Environmental focus: a young boy lends a hand in the community nursery.

Photo: A. Gaviria

Project activities promoted the creation and involvement of several local organisations that remain in place after project completion.

Community company

A 'community company' is a self-managed business organisation owned and operated by members of a community that have grouped together to produce goods and/or services. Under the project, the community company la Bermeja LTD was formally established in 1997 with 50 members (or shareholders). Its aim is to improve the income of its shareholders by managing and commercialising the local natural resources, using the human resources of the community and funds obtained from within the community and from other institutions or projects.

The company now has 82 shareholders and has been harvesting annual logging coupes of 36 hectares using low-impact extraction techniques, which include on-site milling and mule-based transport. It also operates a training and production centre in La Bermeja, 5 km from the forest, and a furniture assembly and sales centre in the city of Jaen,

108 km away. Both centres are equipped with appropriate technology and machinery and qualified personnel. They also have a growing list of clients, having gained recognition in the local markets for the quality of their products, which are manufactured with seasoned timber from managed forests, and the timely delivery of products. The company distributes its albeit modest annual profits to shareholders.

Agroforestry committees

During the first year of its second phase, the project organised and provided technical assistance to three agroforestry committees in the townships of La Bermeja, Torohuaca and Monte de los Olivos. During the second year, two neighbouring townships—El Valor and Santa Rosa—requested support.

The agroforestry committees were given advice on planning their reforestation activities and on the refurbishment and establishment of community nurseries, the preparation of substrata, bag-filling and alignment, seedbedding, the pricking out, irrigation and removal of seedlings, and the field-planting of seedlings. The committees met once a week to develop and carry out nursery activities.

During the 2000–01 and 2001–02 reforestation campaigns, the 111 members of the agroforestry committees planted 56 450 tree seedlings over 79 hectares using three different modalities: block planting, perimeter or border planting, and agroforestry plantations, the last two being the preferred options of farmers both to demarcate and enclose their lands and to provide shade and nutrients for their coffee crops.

Of the planted seedlings, 85% were of the indigenous species *Schizolobium amazonicum*, known locally as ‘pino chuncho’; the remaining 15% were *Eucalyptus saligna* and *E. globulus*. *S. amazonicum* is a fast-growing leguminous species with self-pruning and coppicing ability and is commonly found in secondary forests. Under the conditions prevailing in La Bermeja, this species grew more than 7 m in less than three years; it can actually grow up to more than 30 m in height and 1 m in diameter (at breast height). On an experimental basis, timber has been produced from four-year-old trees and shows commercial potential. *S. amazonicum* has also shown the best survival rates (70% survival), above *E. saligna* (63%) and a disappointing *E. globulus* (38%).

Soil structure is a determining factor for seedling development; those seedlings planted on farms as border plantations or in association with coffee crops fared much better than those planted in blocks—the soils in the designated plantation sites were degraded and did not have sufficient organic matter to produce vigorous growth. *S. amazonicum* planted on the degraded land reached heights of a metre or less in the same time that they reached 7 m on more favourable sites, despite being fertilised with guano and planted along contour lines. New strategies are needed for rehabilitating these degraded lands; options that might be considered include the selection of different species better suited to a colonising role, and the use of nurse trees.

For the 2002–03 reforestation campaign, the agroforestry committees have produced and planted 17 000 *Inga* spp (huaba) seedlings, mainly for shade purposes, in about 35 hectares of farmland in association with coffee crops. This is the preferred species of the communities for use as firewood for cooking.

Mothers’ clubs

Aware of the importance of working with women in rural communities, the Urumba project helped to strengthen women’s organisations in La Bermeja,

Torohuaca and Monte de los Olivos. The success of this led women in El Valor to follow suit and establish their own organisation this year.

The members of the Maria Elena Moyano Mothers’ Club were trained in orchid-growing and reproduction techniques as an alternative to non-timber forest product harvesting in the natural cloud forests. As a result, an orchid nursery now holds about 350 orchids from approximately 80 species, some of which have not yet been scientifically identified. The women from La Bermeja have also received training in carpentry techniques. The 86-woman membership of the four mothers’ clubs has established community orchards and is producing beetroot, radish, onion, coriander, gherkin, cauliflower and other vegetables that are helping to improve the community diet.

University students

The project provided field training for more than 200 forest engineering students as well as opportunities for the development of 13 university theses in different research areas. The project also established a 20-hectare growth plot in the Quebrada Torohuaca Forest Utilisation Unit for the study of cloud forest dynamics; responsibility for maintaining the plot was later transferred to the Cajamarca National University and the Urumba Basin is now an important field site for student field work.

Project sustainability

I believe that much of the enthusiasm, creative thinking and enterprise that the project stimulated in the region will continue to flourish. The communities will be supported by a rather unusual non-governmental organisation established in May 2001 by a number of technicians and professionals associated with the Urumba project (including the present author). The Peace and Environment Institute (Instituto Paz y Medio Ambiente—IPAMA) is a non-profit organisation dedicated to objectives similar to those strived for under the ITTO projects: raising the living standards of the rural communities living in the provinces of Jaen and San Ignacio through the rational and sustainable use of natural resources; promoting the conservation of the environment, the integrated and sustainable development of the communities and gender equity; and strengthening friendship and goodwill with their neighbouring communities in the Ecuadorian border regions.

IPAMA provided technical assistance to La Bermeja LTD for the submission of a project to provide training in the production and marketing of forest products in the Urumba project area. This project was approved by the Ministry of Agriculture and is now under implementation, co-financed by La Bermeja LTD and government agencies INRENA and INCAGRO. IPAMA is also providing technical assistance and support to the agroforestry committees and mothers’ clubs.

Translated from the Spanish by Claudia Adan