



October 1999

## NEWSLETTER AUTUMN 1999

Please note that as from the 1 October we have moved to 15, avenue de Ségur, 75007, Paris, Tel: (33) 01 53 59 50 00, Fax: (33) 01 53 59 50 04

We ask all our friends who have not yet renewed their subscriptions for 1999 to consider using the attached form. We are seeking new financial aid to launch a technical information service for practical agroforestry on the Internet, in collaboration with the Canadian Company AGORA, which is setting up an encyclopaedia on the Internet.

For those readers who have not been following the development of PNI in recent years, we provide a resume of our strategy and main programmes on the last three pages.

### PROGRAMME OF SUSTAINABLE DEVELOPMENT IN GUATEMALA

Guatemala - whose population of around 10 million includes 60 per cent Mayan Indians - is beginning to emerge from more than 30 years of brutal civil war and military dictatorship in which the conflict between the army and guerrillas has mostly been fought out in rural areas where the population is mainly Indian.

The enforcement of the peace agreement signed in December 1997 is proving delicate and complex; the social and psychological traumas of the conflict continue to take their toll and violence still prevails. The return - after the peace accord - of one and a half million political refugees into rural and forest zones in search of land to occupy has emphasised the need to increase productivity as the only way to contain the pressures being imposed on the forest.

Deforestation is a grave threat to this small mountainous and volcanic country. The creation of protected areas will not solve the problem for as long as the population has no means to survive other than to destroy the forest.

Member of IUCN, World Conservation Union

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The role of non-governmental organisations in Guatemala is vital to catalyse and achieve sustainable development which benefits the civilian population and listens to its needs.

In this context, Pro-Natura has been helping to establish three projects, in collaboration with Jose Guillermo Pacheco and Marta Pilon de Pacheco. The Pacheco are respected environmental leaders, and are Pro-Natura's representatives in Guatemala through the NGO which they founded and lead: APRODEMA. Marta Pilon has been one of the country's most effective environmental pioneers since the 1960's and represented Guatemalan NGOs at the United Nations Earth Summit in 1992. Pro-Natura is working closely with three NGOs in Guatemala: Amigos del Bosque, Defensores de la Naturaleza, and Fundacion Mario Dary (Fundary).

These organisations had already started small-scale Agroforestry projects under very difficult conditions. To help them extend their activities, Pro-Natura's role is to organise financing from the European Commission and to provide technical expertise and management support for the three projects. In each case the local population is involved - both in designing the project and in its implementation, with the support and guidance of the respective NGOs. The three projects are presented below in chronological order:

#### **DEFENSORES DE LA NATURALEZA: Sierra de las Minas Biosphere Reserve**

The site for this project is in a mountainous zone, rich in biodiversity, and comprising several ecosystems between the altitudes of 300 and 3,000 metres.

Funding from the European Commission (DG1B) since the end of 1996 has financed a programme of conservation and management of natural resources, environmental education, incentives for alternative production (other than wood), and enhancing the value of the biodiversity.

Of a total land area of 236,000 hectares, this biosphere reserve includes 65,000 hectares of cloud forest (high altitude primary rainforest).

The population, essentially Mayan, is spread between 110 communities. The forest of Sierra de las Minas has been commercially exploited since the early days of colonisation, although the indigenous communities have benefited little from it, and the main problem remains one of deforestation. Thanks to funding in 1990 from the British company, ICI, agreed by Guy Reinaud who was a senior manager for the company at the time, Defensores was able to buy a part of the Sierra de las Minas, which has served as the base for the development of the project.

With most of the flat, fertile land in the valley belonging to large-scale landowners, the lowland rural communities constantly exert pressure on the upland forests (fires and felling). The situation is aggravated by population increase and inappropriate agricultural techniques.

#### **Organic agriculture and agroforestry accompanied by an environmental awareness programme**

Defensores is working with 700 farmers from 60 out of the 110 communities in the reserve area. Organic agriculture has helped to increase productivity by improving the soil quality through natural fertilisers.

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Demonstration plots have been established and practical seminars organised in each community.

Nurseries provide seedlings of local species for **the reforestation programme**, with agroforestry providing an increasing proportion of domestic wood demand. Replanting has allowed the introduction of new cultivation - notably coffee and cardamom which both need plenty of shade. The programme includes areas of commercial plantation enabling wood-based crafts and industry to develop in the region.

**Environmental education** now touches 80 communities and addresses local leaders and decision-makers, (including industrial wood producers) adults and children via a programme of practical training workshops and conferences. An inventory of flora and fauna is being compiled.

**The integration of women** is key to the success of the project and special programmes have been introduced focussing, for example, on health, nutrition and kitchen gardens.

**A programme of hedge planting** has been started to counter a particular problem of the Sierra - the erosion of fragile soils by livestock trampling.

The increasing involvement of local communities in the protection of the forest has resulted in the appointment of forest guards, drawn from the communities themselves. Their role includes fire prevention, guarding against illegal logging and hunting. 70% of all bird, mammal and reptile species found in Guatemala and neighbouring Belize occur in the biosphere reserve, and there is a growing sense within the communities that they are playing an important part in safeguarding their country's natural heritage.

#### **FOUNDATION MARIO DARY (FUNDARY): project Punta de Manabique**

The Punta de Manabique is a coastal zone of 139,000 hectares, situated in the north east of Guatemala, in the department of Izabal, on the Caribbean coast.

It is a paradise of tropical beaches for as far as the eye can see. The hinterland is a jungle of mangrove swamp. The neo-tropical ecosystem is threatened, mainly by the destruction of mangroves for charcoal, and agriculture is extremely difficult.

The local communities inhabiting the narrow strip of land between beach and swamp, live in extreme poverty, dependent on subsistence fishing and selling charcoal. Incomes are effectively non-existent, sanitary conditions deplorable and there is no education. There is no access by land with the rest of the country, and it takes two hours by boat to reach the nearest town, Puerto Barrios.

The local population has no distinct culture of its own, but is a combination of peoples who have flooded in, often from Honduras, as refugees.

With financing from the European Commission (DG1B) in 1997, a three-year development programme was set up to help the population, in the areas of health and education, and also in seeking market opportunities for traditional activities and products which safeguarded the natural environment.

A programme of basic **health education** has been introduced, including practical training days, the distribution of first-aid kits, lessons in hygiene, the construction of toilets...

**Education** is practically non-existent with the majority of inhabitants being illiterate. Fundary has built six schools - partly financed by the Ministry of Education.

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The schools - simple in design and built on stilts, thus well adapted to their location - were conceived by a young architect who has shown the villagers how to build in this way for themselves. Fundary also pays the salaries of two teachers and their transport from Puerto Barrios. Attendance is very high, in spite of the fact that many children need to walk for hours to get to school.

Adult education classes have been started (in carpentry and skilled craftwork) to enable the communities to find additional sources of revenue.

**Environmental education** is being introduced through campaigns for the local authorities and training days for teachers and the general public.

Practical training programmes to introduce organic agriculture have been started in two communities by two agriculture students. Following the initial trials, 18 families volunteered to create demonstration plots in order to pursue a more general practical training.

**Fishing** for manjua (a type of anchovy) is traditionally the main source of revenue in these communities, but fears that the manjua is heading for extinction has already led to fishing bans in neighbouring Belize. Fundary has carried out a study with the University of Guatemala to find sustainable substitutes for this activity. The study has considered different types of fish, products and by-products of coconut palm, vegetable carbon and Eco-tourism.

**Vegetable carbon** is produced from an abundant ligneous plant, called cahue, which grows rapidly and is already commercialised. It represents a sustainable source of revenue, available all the year round, and the exploitation of this plant allows for protection of the mangrove.

A proposed **Eco-tourism project** has already been subjected to an environmental impact assessment, and Fundary is now involved in training local people who are interested in participating.

### **AMIGOS DEL BOSQUE: Quetzal project**

This is the most recent project, and is based in the mountains of Yalijux, Guaxax and Caquipec (in central Guatemala) at an altitude of between 2000 and 2500 metres.

This region, which is an established nature reserve, is mostly cloud forest (high altitude primary tropical forest) which is the habitat of the quetzal - a bird revered by the Mayas and the country's national emblem, which is an endangered species.

The reserve is inhabited by 3000 Q'eqchies families (ethnic Mayas with their own language and culture) living in 37 communities. Since December 1998, financing by the European Community (DG1B) has enabled a series of programmes to be launched, focussing on conservation and the management of natural resources, environmental education, sustainable production and the economic valuation of biodiversity.

**A socio-cultural study and a survey of resources** are underway, both enjoying enthusiastic support from the local communities who have displayed a deep interest in the project.

**An environmental awareness campaign** has been organised, following which the local people themselves have taken the decision to improve the protection of the forest. In May 1999, a committee of representatives from the main communities was set up, centred around the demonstration farm belonging to the Amigos del Bosque.

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The committee - called CONQUEQCHI - is a key facilitator in a wide-ranging environmental education programme, including the training of ten instructors and 140 community leaders. The programme also addresses children, building their awareness of relevant environmental issues.

To halt the progressive invasion of forest lands and to stabilise the boundaries between forest and agriculture, **training programmes in sustainable agriculture and agroforestry** have been set up for the rural communities, their leaders and owners of forest land. An agroforestry system is beginning to develop, involving crop rotation and tree-planting. The benefits are already apparent with market gardening, horticulture and fruit trees providing a more secure and varied source of food for consumption and revenue, while reducing the need to destroy the forest. Previously, the local communities had been invading the forest using slash and burn methods to clear land for monocultures farming of maize or black beans.

The communities now organise exchanges to learn from each others' experiences under the new schemes.

**A programme of handicrafts and Eco-tourism** is developing as part of the Quetzal Project.

The Quetzal project is still in the first phase of implementation, but the support of the local communities has already been secured: it is these communities who will determine, along with the NGO, the action to be taken.

**A fourth project, by the NGO Fundaselva** - also envisaged for the same mountainous zone than the Amigos del Bosque project (Sierra de Yalixux) - is under consideration following studies in 1997. It has been modified and is expecting approval by the European Commission.

**The three projects already underway have suffered enormously from the catastrophic impact of Hurricane Mitch in October 1998.** The Fundary project has been most affected, due to its position on the Caribbean coastline, and the passage of the hurricane has aggravated an already difficult situation. Infrastructure has been badly damaged as well as the vegetation.

Progress by Amigos del Bosques has been severely retarded by the total destruction of access because of severe land-slides.

Defensores has also suffered serious degradation of access routes, harvests and infrastructure.

For further information about these projects, contact Franck de Rouville at our Paris office. ■