

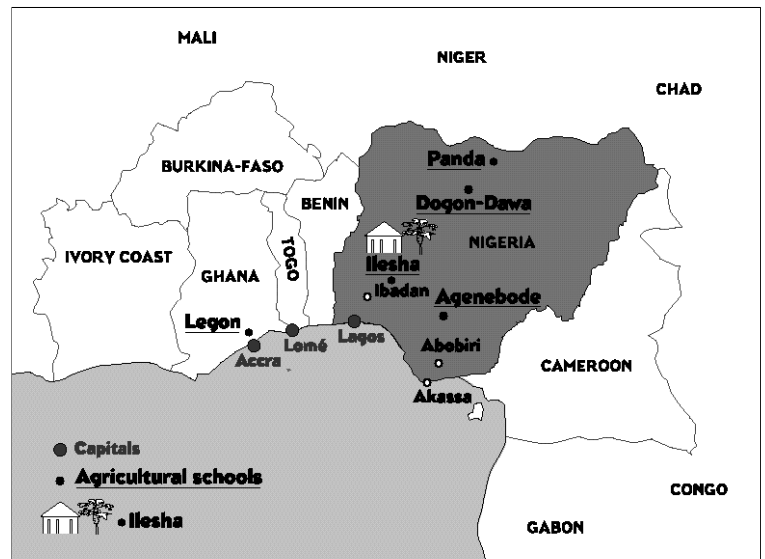
PRO-NATURA Newsletter

January 2001

Member of IUCN, World Conservation Union

The Agroforestry Programme at Ilesha, NIGERIA

TO PROMOTE AGROFORESTRY AMONG YOUNG FARMERS, PRO-NATURA ESTABLISHED AN AGROFORESTRY TRAINING PROGRAMME IN 1997 AT THE LEVENTIS FOUNDATION AGRICULTURAL SCHOOL IN ILESHA, OSUN STATE. THIS PILOT TRAINING SCHEME IN AFRICA IS THE FIRST LINK OF A PROPOSED NETWORK OF AGROFORESTRY TRAINING PROGRAMMES.



In spite of substantial oil revenues, Nigeria is one of the poorest countries in Sub-Saharan Africa. One of the reasons for the deteriorating economic situation arises from the neglect of the Renewable Natural Resources sector of the economy (Agriculture, Forests, Fisheries) in favour of oil, coupled with a rapid increase in population which has more than doubled since Independence in 1960. With 120 million people, 1 in every 5 Africans is now a Nigerian.

Between 1986 and 1992, a national programme aimed at helping the agricultural sector was set up. However, the dependence on massive imports of fertilisers and pesticides, coupled with the devaluation of the Naira, has led in most cases to failures. Farmers reduce fallow periods to increase production leading to increased soil erosion and are then obliged to destroy forests to gain new arable land.

The inevitable result is a reduction of water resources, malnutrition and a drift of rural populations to the big cities. This in turn has led to increasing social tensions.

Localisation of the agricultural schools and agroforestry programme of The Fondation Leventis and Pro-Natura International in Nigeria and Ghana.

Young farmers studying at Ilesha. Every year about 60 young people are trained and receive a plot of around 1 ha to practice.



INNOVATION TOWARD SUSTAINABLE DEVELOPMENT



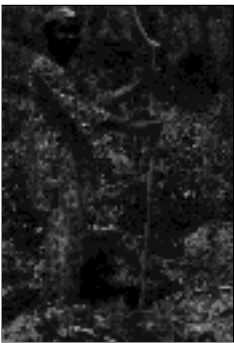
Yam plot particularly bulky with living stakes, a traditional agricultural practice in the south-east of Nigeria and on demonstration at the school.

Agroforestry is an appropriate solution to this situation. Because agroforestry can combine trees, crop cultivation and livestock breeding, land utilisation can be diversified, soil fertility conserved and soil productivity increased.

Agroforestry is a means of halting the vicious circle of deforestation, soil erosion and reduced fallow periods. It is the main reason why FAO encourages agroforestry in its "Special Programme for Food Safety."

The present programme is financed by the European Commission and by the Leventis Foundation, which has set up four Agricultural Schools in Nigeria and one in Ghana.

The introduction of An Agroforestry Training Programme into Ilesha Agricultural School



A local resident farmer near Ilesha school is planting a *Glyricidia sepium* (legume) used as yam stake.

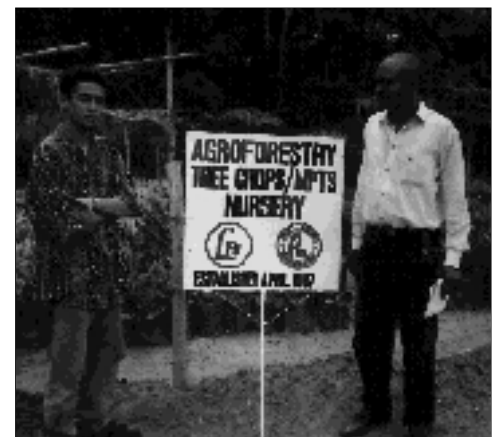
Established in 1987 by the Leventis Foundation, the Ilesha Agricultural School is situated on 234 hectares of land previously cleared for farming, with a few remaining patches of forest. The area is typical of the SW Nigerian ecological zone, and is suitable for a wide variety of crops and trees. Until the introduction of the Agroforestry training programme, the primary function of the school was to train young farmers in basic farming practices and farm management.

Integration of the traditional knowledge of small scale farmers into the agroforestry training programme

Agroforestry techniques are traditionally practised throughout much of southern Nigeria. Consequently, a lot of knowledge can be gained from a study of traditional land-use systems and it was essential to integrate these into the training programme. As such, a participative evaluation was made of existing farming systems taking into account local ecological conditions along with socio-economic and cultural needs. By building on farmers' own experiences, this helps to enhance the adoption of agroforestry techniques.

A survey of the needs and preferences of farmers in two rural communities was undertaken in 1998 and this formed the basis for the creation of the project nursery.

An ethno-botanical survey of rural communities around Ilesha was conducted in 1999 to assess the acceptability of several potential agroforestry species. Some 71 species were selected for their productivity, medicinal and agroforestry values. On the whole, local farmers knew very well the value of many species for increasing soil fertility. The medicinal qualities of various species were also widely known.



The entry of Ilesha agroforestry nursery

> Heads of the project

- Director of Pro-Natura in Nigeria : *Philip HALL*, ecologist
- Project Co-ordinator : *Babatunde A. AKINSINDE*, principal Ilesha Agricultural School
- Agronomy Adviser : *Nick ASHTON-JONES*,
- Botanist : *Jean-Marie BOMPARD*
- Agronomist/agroforester : *Wilfrid PINEAU*

In the middle
an anti-erosion
line of vetiver
and lemon grass

In the front
Enterolobium cyclocarpum
(legume)

The increase of agroforestry
practices have necessitated
the nursery extension.



At the back
spaces are
allocated
to future
plantations.

A one year training programme based on 80 % practical work and 20 % theoretical teaching for young farmers

Through widespread local publicity, the Ilesha School recruits young farmers who, as a prerequisite, are required to have their own land to farm upon completion of the course. In SW Nigeria, as in other parts of Africa, it is often difficult for a tenant farmer to plant trees on his farm as this is seen as conveying ownership on the plot and so this often mitigates against the introduction of agroforestry systems.

The training programme lasts for one year and each student is allocated a plot of around 1 ha to cultivate under supervision. With the cash they get from the sale of the crops they are able to grow, they are able to buy the basic tools that they will need on completion of the course. Around 60 young farmers are trained each year during which time they receive free accommodation and food.

- **An agroforestry nursery** has been set up after a survey, conducted in collaboration with the Ibadan National Horticulture Research Institute, amongst farmers of two villages, Iwikun and Alopomu, in order to know their preferences among medicinal trees, fruit trees, and wood trees.
- **An Arboretum** of fruit and exotic trees has been established to produce seeds and to teach grafting techniques.

- **An inter-cropped plot** has been set up to demonstrate the importance of leguminous plants in maintaining soil fertility. In addition, this technique helps in containing diseases and diminishes the need for ploughing.

- **Alley cropping is practised** and the results are so convincing that more and more local farmers are adopting it.

- **A 2 ha orchard has been planted.**

The alleys between the fruit trees are cultivated by the students to demonstrate the value of alley cropping.

- **The remnant 10 ha forest** on the school premises can be used for sustainable management of natural resources (non-timber forest products) and for the collection of wild seeds.

- **Demonstrations of soil erosion control** are conducted with herbaceous plants, like vetiver and lemon grass, planted in various arrangements. These plants were selected from ethno-botanical knowledge.

- **The production of domestic fuel wood in the agro-pastoral systems** (trees/crops/pasture/cattle) is an integral part of the training.

Short agroforestry training sessions are also organised at the school and on the farms of previous students. 115 farmers have already benefited from these including a Shell sponsored group from the Niger Delta.

briefly... briefly... briefly...

MADAGASCAR



> During November, in order to prepare the scientific Canopy Raft mission due in the Autumn 2001, Pro-Natura has organised a preparation phase in the Masoala National Park. This Parc is one of the last pristine Rain Forest of Madagascar and contains an exceptional biodiversity.

briefly... briefly... briefly...

NIGERIA

Philip HALL, Director of Pro-Natura in Nigeria, has been appointed as an Officer of the British Empire (OBE) and received the award from the Queen in a ceremony at Buckingham Palace on 24 October 2000. The award was for Conservation and Human Rights in Nigeria.



CREATION OF ECO-CARBON

Eco-Carbon is a newly created Company specialised in the engineering and implementation of carbon fixing projects to fight against climate change and promote sustainable development. Some of Pro-Natura's activities are now transferred to Eco-Carbon. These are activities in need of important investments to be developed i.e. carbon fixing projects and biomass energy.

Follow-up for students and creation of village nurseries

After 4 years, 307 young farmers have been trained at Ilesha, of which 243 were males and 64 females.

A Farmers' Day is organised every year to support students after they have left the school. This affords them the opportunity to share experiences and to talk about their particular problems with the school staff.

Also, the occasion is used to generate local farmer interest in agroforestry. Promoting the establishment of village nurseries is an important component of the Pro-Natura/Leventis programme to disseminate information on agroforestry practices. In this regard, 6 former students have

set up a village nursery at Orin Ekiti, in nearby Ekiti State. In collaboration with the Ekiti State Ministry of Agriculture and Rural Development, the students have been given 8 hectares of land. The school staff provides any necessary back-up. The eventual aim is to set up a network of village nurseries similar to Orin Ekiti where plants will be available and grafting techniques can be taught.

Farmers trained at Ilesha welcome others farmers coming to participate in short-term agroforestry information sessions organised by the programme. Farmers from several other states have already shown interest in attending such sessions.



Babatunde AKINSINDE, Ilesha School Principal, advises a group of former students to create an agroforestry nursery at Orin Ekiti.

Promoting agroforestry to increase farmer's income whilst combating deforestation

Collaboration has been set up with the following international and local institutions to promote agroforestry techniques : **OSSADEP** Osun State Agricultural Development Programme ; **OODAP** Oyo-Osun Diocese Agricultural Programme ; **IITA** International Institute of Tropical Agriculture ; **IFAD** International Fund for Agricultural Development ; **CDI** Community Development Investment ; **OIS** Olashore International School ; **UI** University of Ibadan ; **ADU** Akassa Development Union ; **NIHORT** National Institute of Horticulture Research ; **FRIN** Forestry Research Institute of Nigeria ; **CRIN** Cocoa Research Institute of Nigeria.

The objective of Pro-Natura is to spread the agroforestry training experience acquired at Ilesha to the four other Leventis Foundation agricultural schools, three in Nigeria and one in Ghana. Also, a study has been carried out to create a similar training centre in Ivory Coast, which should start this year.

Pro-Natura International is a Franco-Brazilian non-governmental organisation whose goal is to promote sustainable development in rural tropical communities to preserve biodiversity. Pro-Natura is active in 25 countries in Africa, Latin America and Asia. It links projects of sustainable development based on agroforestry, with innovative programmes which promote biomass energy and the fair creation of value from biodiversity.

www.pronatura.org

INNOVATION TOWARD SUSTAINABLE DEVELOPMENT

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