PRO-NATURA INTERNATIONAL
Innovation towards Sustainable Development
Member of IUCN, the International Union for Conservation of Nature

NEWSLETTER MARCH 2015

PRO-NATURA AND THE A.P. LEVENTIS ORNITHOLOGICAL RESEARCH INSTITUTE HAVE JOINED FORCES TO SET UP A PARTICIPATORY SUSTAINABLE DEVELOPMENT PROJECT IN JOS PLATEAU, NIGERIA

The Leventis Foundation Nigeria and Pro-Natura International (PNI) have been partnering in Nigeria and Ghana in the field of agroforestry training for small-scale farmers for over 15 years.

Located in the centre of Nigeria near Jos City on the high Plateau, the A.P. Leventis Ornithological Research Institute (APLORI) was founded in June 2001 following a generous contribution by Ms. Anastasios Pavlos Leventis, CBE, OFR. The Institute is an autonomous field station of the University of Jos, the only field station dedicated to ornithological research and conservation training in West Africa. It provides a unique base to set up long-term ecological research projects. The APLORI is more than an ornithological training and research centre; it has developed an interesting relationship with surrounding communities in the field of natural resources management.

We carried out the agroforestry systems and Vegetable Production to enhance Food Security amongst Communities Surrounding the APLORI between 2012 and 2013 with support from the Social Development Fund of the French Embassy in Abuja. The project benefited more than 500 farmers from Laminga, Kerker and Zarazon communities of which 100 directly benefited from agroforestry training and vegetable production support.

APLORI / Pro-Natura / University of Florida team, Jos 2011

By the end of 2012, we gave a conference on biochar-enriched Super Vegetable Gardens and agroforestry in Jos and in Abuja in partnership with the Alliance Française and the French Institute in Abuja. Mr. Carl Engelsen, Director of French Aid at the Embassy has also visited the project to see by himself the new agricultural practices.

Guy F. Reinaud, President of Pro-Natura International says: *Phil Hall OBE, of the Leventis Foundation and Wilfrid Pineau, Project Director at PNI, through their innovative visions and their 15 years common project experience hindsight, had this feeling that the APLORI was a unique place in Nigeria to conduct a participatory integrated sustainable Development Project*. Ms. RahilaYilangai, APLORI/Pro-Natura Project Director and Dr. Manu Shiiwua, Director of the APLORI, ensured the smooth running of the project.

Pro-Natura International
33 Avenue Duquesne, 75007 Paris Tél. +33 680 61 09 36 Email pro-natura@wanadoo.fr - www.pronatura.org
Association de solidarité internationale (Loi 1901 J.O. 23.09.92 N°39)

IMPROVING LIVELYHOOD AMONGST APLORI SURROUNDING COMMUNITIES BY COMBINING AGROFORESTRY AND BIOCHAR

Besides the increasing food prices, declining yields and incomes, farmers in the communities surrounding the APLORI Amurum Forest Reserve struggle with water and fuel wood shortages. Emphasis only on farming practices that provide short-term monetary returns obscures their capability to engage in alternative farming practices that could supply household needs and income in the long-term.

Biochar enriched vegetable gardens in combination with multipurpose tree planting for fuel wood, soil restoration and other non-timber tree products, are agro-ecological strategies that significantly improve the livelihoods of surrounding APLORI communities. With support from the French Embassy (Social Development Fund) in 2012 and 2013, we could introduce the biochar into vegetable production as well as supporting traditional vegetable production.

The remarkable achievement in increased food production and income among the farmers was as a result of the support given to farmers for training, creating and managing biochar Super Vegetable Gardens. Generally, there was 59% increase in vegetable production and 56% increase in income realized by the farmers.

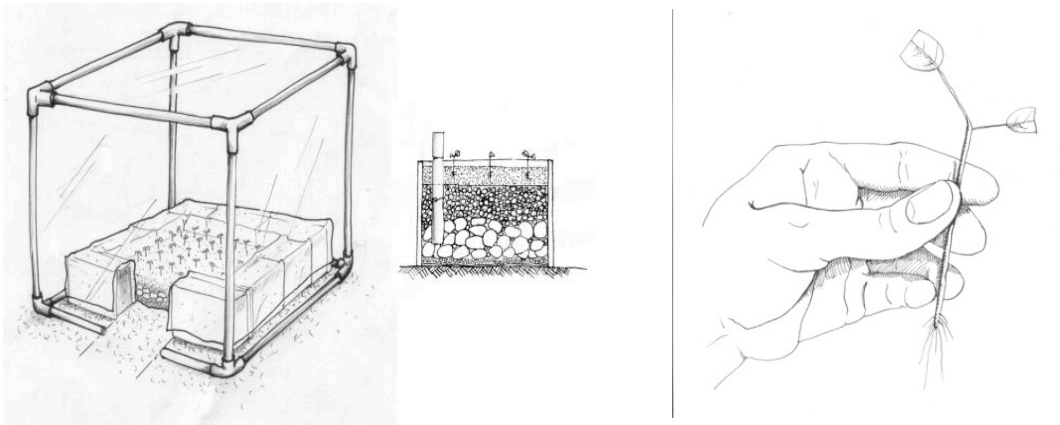
Increase in farmers' vegetable production was particularly high for green pepper (93%), sweet pepper (84%) and tomato (61%).

Our on-farm experimental research pilot plot showed that stem growth and fruit yield in tomato plants were higher on beds with biochar, 35% and 76% respectively.

We published these results in the Journal Current Agricultural Research 15 June 2014.

AGOFORESTRY TRAINING, FOREST ENRICHMENT, BIODIVERSITY PROTECTION OF TREES AND BIRDS

One hundred and two farmers showed great interest in the project through their participation in weekly agroforestry trainings, including massive agroforestry tree multiplication through cuttings.



Growing cuttings in the Pro-Natura propagation box helps domesticate easily and rapidly wild fruit trees that are for most of them under threat (concept Wilfrid Pineau)

About 3 000 multi-purpose tree species were raised in propagation boxes located at the APLORI and the Laminga nurseries. This was particularly important to conserve local threatened indigenous species such as: *Khaya senegalensis, Afzelia africana*, *Parkia biglobosa*, *Balanites aegyptiaca*, *Vitex doniana*. Whereas *Moringa oleifera* was the favourite-planted tree species, we encountered mysterious beliefs such as the resistance from farmers to plant the Tamarind tree *Tamarindus indica*.

Ms. Rahila Yilangai says: *As a project coordinator, the coordination of the agroforestry project has been a rewarding experience. It has exposed me to the local and global conditions of living of the rural people especially the peasant farmers as well as approach of International NGOs and governments to poverty eradication. Briefly stated, the lessons learnt include: Administrative and management skills / Project implementation skills / Technical and innovative knowledge of agricultural techniques / Global poverty eradication strategies and approach / Relationship with project partners at local and international levels / Research skills in field crops and soil amendment / Community/rural development approach*.

Synergies between birds and trees are an important field of research at the APLORI. Ensuring a regular production of trees allow forest enrichment, creation of shelter bands and living fences that are important landscape ecology strategies for bird conservation.

From left to right, Wilfrid Pineau (Pro-Natura International), Dr. Piet Van Den Hout (Royal Netherlands Institute), Phil Hall (Leventis Foundation) and APLORI students observing birds feeding on indigenous Multi-Purpose Trees.

Turdus pelios and Cinnyricinclus leucogaster eating figs of a Ficus thonningii (Pictures from Dr. Van den Hout)

For example, live fences consist of live vegetation, their primary purpose is to divide, separate, and protect agricultural plots or livestock. However, they are also attractive to farmers because they offer fuel wood, fruits, shade, soil enrichment, and fodder for livestock, in addition to promoting biodiversity.

The fruitful partnership between Pro-Natura and the APLORI has laid solid technical and social foundations for new pilot projects implementation. This includes sustainable agriculture participatory biochar project, biodiversity conservation through agroforestry, landscape management, forest enrichment.

Another future perspective is the gazetting of remaining forest areas, facilitating REDD (Reducing Emissions from Deforestation and Degradation) projects and carbon credit financing.

Essentially, our projects aim to link community involvement in the management of the forest while at the same time ensuring forest and wildlife conservation and seeking carbon credits to provide additional community benefits.

The implementation of such a pilot project including agroforestry activities is extremely relevant for its adoption and up scaling in other Nigerian locations and natural reserves such as the Yankari and Kamuku National Parks. ■

Nursery at the APLORI

Layering training by Wilfrid Pineau at Laminga nursery

Contact

Guy F. Reinaud, President: +33 6 80 61 09 36
guy.reinaud@pronatura.org

Wilfrid Pineau, Project Director: +590 6 90 75 91 91
wilfrid.pineau@wanadoo.fr

www.pronatura.org