Year of CfP: 2007

Project No: 07044 Completed

Project title: Capitalization and capacity building on method to assess and develop agroforestry innovation in humid tropics (Africa and Mesoamerica)

Unit managing the project: Innovation (CIRAD, INRA, SupAgro)

Project leader: Nicole Sibelet (nicole.sibelet(a)cirad.fr)

Countries involved in the project: Madagascar, Kenya, Uganda, Guinea, Cameroon, Ghana.

Research units from the Foundation's scientific network involved: System

Subthematic axes: STDI-1 (Socio-Technical Dynamics of Innovation 1: *Agri-environmental innovations, agri-ecosystems, resources management*), STDI-3 (Socio-Technical Dynamics of Innovation 3: *Innovation processes, social management of innovations*)

Objectives:

Even if agroforestry is a common practice for most of the farmers in the world, it was only in the late 1970's that it was recognized as a scientific issue. Since then, the scientific interest on agroforestry has increased, especially in the 1990's when the effects of pollution, loss of biodiversity, greenhouse gas emission, etc. started to be more pronounced and felt in industrialized countries.

Transdisciplinarity studies are necessary to analyze the complexity of agroforestry, which provides products and services of different types (social, economic and environmental). As new tools become available (e.g., stem flow gauges, isotope methods, sonic anemometers, etc), studies at the plot scale, i.e., on, above and below ground competition and facilitation relations, have produced useful results for evaluation and design.

In socio-anthropological science, crossing kinship and land tenure theories now allows for the analysis of stakes related to the access rights on agroforestry products. Modeling techniques useful for the synthesis of results from both transdisciplinary and socio-anthropological science as well as the development of decision making tools are still scarce.

The objective of this project is to synthesize information on participatory methods for evaluation and design of agroforestry systems (AFS) and contribute to the improvement of conceptual frameworks by including francophone experience of different research units form the biophysical, agronomic, and socio-economic sciences.

This includes combining experiences on the following

- Farmers' knowledge appraisal methods
- Space and temporal characterization of AFS dynamics and their determinants
- Conceptual models for system approach (both to synthesis, compare and facilitate exchange between farmers and experts/scientists knowledge)
- Different models (biophysical, economic, process- based, etc.)
- Evaluation of environmental services, including payments schemes and taxes, if possible.

Action carried-out and results obtained:

Hosting postPhD for 12 months for the development of research on the dynamics of Agroforestry systems

Thematic School on Social sciences Methods of applied to agroforestry

Two won projects EU 2008 FUNICTREE and ANR 2010 INTSEN& FIX

2 publications in reviews with impact factors

Missions reports. Research reports (1 produced by the School participants in French and in English + 1 produced by 2 teachers and 2 participants) +Oral feed-back to local stakeholders + evaluations + press release

Publications:

Chloe N. Marie, Nicole Sibelet, Michel Dulcire, Minah Rafalimaro, Pascal Danthu, Stephanie M. Carriere (2009) Taking into account local practices and indigenous knowledge in an emergency conservation context in Madagascar. Biodivers Conserv, Volume 18, Number 10, 2759-2777

Aboubacar Camara, Patrick Dugué, Jean-Paul Cheylan, Jean-Marie Kalms (2009) De la forêt naturelle aux agro-forêts en Guinée forestière. Cah Agric, vol. 18, n° 5

Prospects for the future:

1) An elearning on social sciences Methods applied to agroforestry is built with funds of ' UVED/CIRAD and IAMM based on 2009 Thematic School. A pilot version of two modules is on test. Developments are scheduled: translations in English and Spanish, adaptations and creations; new case studies and construction of other modules this elearning could be used in particular as bases of methodological support in multidisciplinary projects and pluriparternships.

2) From January 2011, CIRAD and CATIE will build a duo through Nicole Sibelet and Isabel Gutiérrez to strenghen sociology on environemental issues. Both are specialised in Stakeholders' perceptions, local knowledge, practices and strategies facing environmental risks applied to agroforestry systems.

Total Agropolis Fondation funding: € 148,000 (Post-doctoral fellowship, travel expenses, transportation)

Funding categorie(s): Agropolis Fondation post-doctoral fellowship, Agropolis Fondation support award for international training courses, Agropolis Fondation small grants (support to prepare applications for national and international calls for proposal, e.g. ANR and EU FPs)

Project duration: 2 January 2008 – 30 November 2010

Keywords: agroforestry – innovation – international thematic school