

## **WCA 2, Monday 24<sup>th</sup> August 2009**

### **Reporting on Technical Session 02**

Technical session 02 gathered some 35 participants. The session focused on « Agroforests in Humid Tropical Africa ». This session may be considered as a follow-up meeting of the first workshop on agroforests in West and Central Africa held in Sérédou, Guinea in November 2008. Communications presented during that workshop have been published in a CD that may be requested ([renoir@cirad.fr](mailto:renoir@cirad.fr)).

After introducing the session and its objectives, 6 oral communications were presented<sup>1</sup> (instead of 8 as planned, due to the absence of 2 presenters).

#### **Agroforests?**

“Agroforests” represent the end-result, the mature phase of one group of agroforestry systems developed by farmers in the humid tropics, a group located at the extreme forest end of the agroforestry systems range. In their mature phase, these successional systems look like simplified natural forests and may be defined as forest structures planted and managed primarily for income generation through the production of various forest and agricultural products on the same piece of land. Established through a complex succession of development and production stages, agroforests mimic natural forest structures, with a complex multistrata canopy. Among all the systems developed in the humid tropics, agroforests’ contribution to the conservation of tropical forest species diversity is exceptional and unique.

#### **In Humid Tropical Africa?**

Many agroforest systems have now been reported, described, characterized, and studied, but examples mostly come not from the humid tropics of Africa but from those of Asia and America.

In view of the conceptual and practical importance of agroforests as a model for the profitable and sustainable management of agricultural and forest resource by farmers in humid tropical Africa, technical session 02 aimed to gather existing information on agroforests in humid tropical Africa, with the following main objectives:

- 1/ characterize the social, cultural, economic and environmental context of the development of agroforest systems in the region,
- 2/ characterize the performances of currently existing agroforests in terms of their production, profitability and environmental services,
- 3/ characterize the various challenges –social, economic, environmental- to which the development and expansion of agroforests in humid tropical Africa could respond,
- 4/ identify the various constraints agroforests face for their development in the region,
- 5/ identify and prioritize research needs on agroforests in the region,
- 6/ develop an international research network

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<sup>1</sup> The following communications were presented:

de Foresta H.: Agroforests in the Humid Tropics : vanishing in South-East Asia, expanding in Africa ?

Lamanda N.: How agronomy can deal with agroforests?

Camara A. A.: Comparative analysis of spatio-temporal dynamics of agroforestry systems in African circum – forest areas : case studies in Guinée forestière and Centre Cameroun.

Jagoret P. : Characterization of cocoa agroforestry cropping systems and evaluation of their sustainability: the case of Centre Cameroun.

Ménard Léa: Cocoa cultivation in Southern Cameroun

Adou Yao: Coffee and Cocoa based agroforests in southern Côte d’Ivoire: a biodiversity assessment.

## **Some Key messages**

The session confirmed that “agroforest” systems have indeed been developed in many places by local farmers in the humid tropics of Africa.

The session also confirmed the existence of a huge knowledge gap regarding agroforests in this region: basic data are lacking on the “who, where, when, how?” as well as on the agronomic, economic and environmental performances of agroforests in their local contexts, but also on the dynamics of agroforests at the landscape scale. For instance, nothing was known about the potential existence of agroforests in Côte d’Ivoire. Preliminary survey presented during the session showed that there are coffee and cocoa agroforests in smallholdings in various parts of the country and that, as elsewhere, these agroforest patches have a role to play for the conservation of forest biodiversity.

Bearing in mind the potential benefits of agroforests for smallholders and the environment, a huge research effort is thus needed in order for agroforests to be taken into account in land-use planning and rural development policy...

## **Key insights / results**

Agroforests have been first identified, recognized, and conceptualized in South-East Asia by the early 1980’s. The identification of agroforest examples in the humid tropics of Africa has only begun in the late 1990’s, with the increasing focus on biodiversity in cocoa agroforestry systems and their recognition as true “agroforests” since 1998. Since then publications related to cocoa agroforests in various parts of humid tropical Africa are on the rise. Coffee agroforests have been identified more recently (Guinea, Ethiopia).

Research for improving the profitability of agroforests is urgently needed as it seems that they are doomed to conversion to other more intensive but less environmentally friendly systems when countries develop and rural areas increasingly integrate the globalized market economy. Context specific research for agroforest’s improvement is needed but also generic research and generic policy changes (e.g.: high value timber in agroforests, payment for environmental services...).

The quantitative assessment of production performance in such diversified successional systems is necessary in order to identify agroforests’ limiting factors but still poses difficult problems. The cropping system concept may help but must first be adapted by taking into account the time dimension specific to these systems...

Agroforests are currently expanding in some areas and this is due to farmers converting savannah’s or pasture land into diversified agroforests (Cameroun and Guinea, Ethiopia), showing that agroforest building by local farmers may be an important pathway towards the afforestation of savannah and the reforestation of pasture lands in the humid tropics of Africa. The examples of old cocoa agroforests (more than 40 year old...) encountered in Centre Cameroun show that, contrary to a common belief, cocoa cultivation can be economically and environmentally sustainable in the long term when associated to a diversity of trees.

To conclude, a call for papers on agroforests in the humid tropics of Africa for a special issue of the journal “Trees and Livelihoods” has been made by H. de Foresta ([foresta@ird.fr](mailto:foresta@ird.fr)), who is also the current editor of the journal. This special issue could be published in the first semester of 2010, providing enough quality papers are submitted on time...

Session organizers : H. de Foresta & N. Lamanda

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