PROGRAMME STRA 2010
INTENS&FIX PROJECT

Agroforestry: A Profitable Land Use

Outlines of The 12th North American Agroforestry Conference, Athens, USA, June 4-9, 2011

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Sommaire

Abstract:

The 12th North American Agroforestry Conference, Agroforestry: A Profitable Land Use, was held June 4-9, 2011 with the Association of Temperate Agroforestry (AFTA). The conference was hosted by the University of Georgia, in Athens.

The conference concentrated on the questions of research on agroforestry, development, policy, education and entrepreneurial projects. The report reminds the themes of the conference; gives some outlines of the field trip and web link to know more. It lists the items we promoted during the conference: Cirad and Catie teams, a distance learning on social methods, a book on ecosystem services, the Intens&fix project…

Keywords: Agroforestry, silvopasture, distance learning, alternative farming system, sociology, socio-anthropology, ecosystem service.

Introduction

The 12th North American Agroforestry Conference, Agroforestry: A Profitable Land Use, was held June 4-9, 2011 with the Association of Temperate Agroforestry (AFTA). The conference was hosted by the University of Georgia, in Athens.
http://hosting.caes.uga.edu/2011NAAC/agenda.html

Since 1991, the Association for Temperate Agroforestry (AFTA) promotes "the wider adoption of agroforestry by landowners in temperate regions of North America". AFTA is an organization based at the University of Missouri Center for Agroforestry at Columbia. http://www.aftaweb.org/index.php

The conference concentrated on the questions of research on agroforestry, development, policy, education and entrepreneurial projects.
The conference was organized in a plenary session, concurrent sessions, one day of field trip and a meeting with the farmers

130 people present had mainly come from North America (the USA and Canada). Less about ten Europeans participated including two French: Christian Dupraz (INRA) and Nicole Sibelet (CIRAD). Some rare Africans, Asian and a South American were present.

The plenary speakers were Kathleen Merrigan, Deputy Secretary of Agriculture, U.S. Department of Agriculture, Jamshed Merchant, Assistant Deputy Minister Agriculture and Agri-Food Canada, and Dennis Garrity, Director General, World Agroforestry Centre.

Concurrent session themes

Pest management and agroforestry
Botanicals and medicinal plants as non timber forest products
Silvopasture establishment and management
Riparian Buffers and water conservation/management
Cultural and socio-economic aspects, including heritage varieties, in temperate agroforestry
Agroforestry crops and products, and market development
Education, training and outreach in agroforestry
Soil conservation, water quality and wildlife habitat in agroforestry systems
Multiple use landscape management through agroforestry
Agroforestry for ecological goods and services delivery
Decision support systems for agroforestry
Carbon Sequestration and Conservation Agriculture with Trees
Incentive programs and support for Agroforestry practices

Field trip: Multispecies grazing and silvopasture + alley cropping + riparian management planning

Spring Valley Ecofarm

"Spring Valley EcoFarms is a non-profit organization focusing on education, research, and outreach to promote more ecologically sustainable agriculture. Its seat is Spring Valley Farm, 100 acres in the Georgia Piedmont. The vision is to reduce reliance on external subsidies in agricultural systems through incorporating free services of nature. The goal is to develop a model for conservation of biological diversity and to provide a laboratory where ecological science and theory are put to a real-world test."

http://www.springvalleyecofarms.org/outreach-and-ed-v-16.html

Visit of Alley cropping culture with sorghum and beans and Amorpha fructicosa (short trees).

Nature's Harmony Farm

An urban couple settled with a diversified and organic farming system which aims to food self-sufficiency for the family and a quality of the products with self consumption and selling. The agroforestry is present there in the form of sylvopasture for the pigs and the dairy cows. http://www.naturesharmonyfarm.com

To make a tour on the farm even if one hardly sees there the pigs and the cows which actually graze under the trees. http://www.youtube.com/watch?v=4AtdFUvyuXI

Grove creek farm

A young couple inherited a property following the premature death of the father of the wife. Beyond the land, they choose to inheritate the spirit of the founder of the farm: "Take care of people by taking care of the Land". These young farmers take advantage of a double advantage: (I) land inherited (II) an important support by the agricultural and conservation services. http://www.grovecreekfarm.org/home

Their herd is made up of an endangered breed of heritage cattle known as Pineywoods cattle. One of the first races introduced in North America by Spanish around 1500. They start the valorization of pine forests resulting from natural regenerations by a program of sylviculture advised by the agricultural services.

Riparian management

Use of a herd with 18 to 30 sheep to pasture 6 times a year up to control vegetal species non desirables within a ripisylve.

http://www.flickr.com/photos/52403154@N03/sets/72157626075832351/

Promotion of teams and projects

Qualitative research – Distance learning

We have built a distance learning just edited (may 2011) https://enquetes-cirad.iamm.fr/ after several months of testing. An English version will be soon available. Please contact me if you are interested sibelet@cirad.fr

In the standard curriculum for future territory managers, some modules address management methods of rural areas and of biodiversity, but few address qualitative survey methods enabling one to establish a dialogue with people involved (local stakeholders, politicians, associations...) through which one may understand their knowledge, perceptions, and strategies concerning their territory. Surveys are required if one is to draw from local knowledge, perceptions and strategies.

When survey training is proposed, it often concerns quantitative survey methods, with questionnaires and statistical analysis. These tools, while useful in certain situations, nevertheless are not adapted to a wide range of professional situations where environment managers do not know the practices, perspectives, or strategies of stakeholders in the area and consequently must uncover the social context in which they work.
The modules presented, in our distance learning, are focused on the theoretical training and practice in semi-structured interview survey method. The modules join the panel of tools available in sociology (participatory observation, life stories, open interview). The modules provide rigorous methodological tools that complement survey methods using closed questionnaires.
The training will lead you to understand how to construct variables, prepare and conduct a semi-structured interview.

Cirad

"CIRAD (Centre de coopération internationale en recherche agronomique pour le développement)
collaborates with the whole range of developing countries to generate and pass on new knowledge, support agricultural development and fuel the debate on the main global issues concerning agriculture.
CIRAD's activities involve life sciences, social sciences and engineering sciences, applied to agriculture, food and rural territories. CIRAD works hand-in-hand with local people and the local environment, on complex, ever-changing issues: food security, ecological intensification, emerging diseases, the future of agriculture in developing countries, etc." http://www.cirad.fr

Umr Innovation

Joint Research Unit (UMR) - UMR Innovation

" The Unit conducts research on these innovation processes in agriculture, which are seen as individual and collective action processes on technical and organizational levels. It covers the whole of the process, from stakeholders' reasons for innovating up to the development effects generated by the innovations. It works in France and overseas, with numerous researchers and research projects worldwide. The UMR's interdisciplinary project is a pool of expertise in biotechnical sciences (agronomy) and social sciences (economics, sociology, anthropology, geography, management sciences, and law)." *http://umr-innovation.cirad.fr/*

Intens&fix

Intens&Fix is a project in which an UMR innovation team and I are involved.

Intens&Fix: "Ecological intensification of plantation forest ecosystems. Biophysical modeling and socio-economical assessment of associated nitrogen fixing species".

"The Intens&Fix project aims the ecological intensification of Forest Plantations through the association of N_2-fixing species (NFS) with the goal to increase stand production as, in particular, a result of better N and P availability in the soil. While numerous results have been produced on the associations of species in annual cropping systems, comprehensive assessments of ecological interactions in mixed species forest plantations are lacking. The project will propose innovative alternatives to forest plantation monocultures (mixtures of non-fixing trees with fixing trees or fixing herbaceous species). These techniques should provide a high and sustainable level of wood production with reduced chemical fertilizer applications. They should combine positive environmental impacts while ensuring social-economical improvement of livelihood for smallholders or performances for commercial companies. The project will develop an experimental approach on 3 forest plantation schemes on 5 sites selected in France (2) and in the tropics: Brazil (2), Congo(1) to cover an appropriate range of ecological conditions. An integrated biophysical model will be developed for the simulation of mixed species in forest plantation. Crossing models outputs and a survey of stakeholders' innovation process concerning the use of N2-fixing species will entitle us to assess the potential development of these systems. The approach will be multidisciplinary and involves scientists working in ecophysiology, biogeochemistry, soil science, microbiology, sylviculture, socio-economics, and modelling."

http://www.cirad.fr/ur/ecosystemes_plantations/themes_de_recherche

CATIE

Mission: Increase human well-being and reduce rural poverty through education, research and technical cooperation, promoting sustainable agriculture and natural resource management.

Vision: Territories and rural communities in Latin America and the Caribbean achieve greater human development by providing ecosystem goods and services in a competitive and sustainable manner.
CATIE brings science, graduate education and technical cooperation together to reduce poverty through integrated management of agriculture and conservation of the environment in Latin America and the Caribbean. http://www.catie.ac.cr

GSEBSA

Gobernanza y Socio-economía de Bienes y Servicios Ambientales
Socio-economics of Environmental Goods and Services (SEGS)

"The Socioeconomics of Environmental Goods and Services thematic group works transversally through all of CATIE's areas. It is formed by a multidisciplinary team specialized in working directly with society, facilitating innovative mechanisms to generate and promote sustainable development in different parts of the region through social-economic-environmental analysis tools that help to optimally design and apply public policy, taking into consideration equity, competitiveness, governance and sustainability." http://www.catie.ac.cr/BancoConocimiento/S/socieconomia_cartilla_presentacion_/socieconomia_cartilla_presentacion__ENG.asp?CodIdioma=ENG&NomMagazin=Socioeconom%EDa%20de%20bienes%20y%20servicios&Id_Categoria=&CodMagazin=39&CodSeccion=175

Scientific Partnership Platform for Agroforestry in Mesoamerica

"To increase the competitiveness and sustainability of the agricultural sector of Mesoamerica through the quantification, valuing and development of all the potential products and environmental services of Agroforestry Systems with perennial crops (in particular coffee and cocoa)".
Agroforestry systems, wherein different plant species, including perennials, are cultivated together in the same plots, have the potential to achieve a more sustainable use of natural resources than monocultures. However, the economic performance of these systems, as measured with traditional financial indicators, may not attract farmers. Integrated studies and tools are needed to improve the agroforestry systems, develop value chains adapted to the products and environmental services provided and make these opportunities accessible to the farmers. This platform is an initiative to bring together scientists from CIRAD, CATIE, INCAE, CABI, BIOVERSITY and PROMECAFE to address these challenges as a strong, multidisciplinary, group and achieve significant research and developmental results." http://www.pcp-agroforestry.org/

We are especially involved in Theme 3 Agroforestry system for the improved livelihood of the rural poor.

"The main objective of this theme is to assess, via social and economic studies, the impacts of AFS on farmer's livelihood strategies. Studies will focus on knowledge, perceptions and values, practices and economic dependency of local populations on AFS. A sub-objective is to formulate and disseminate to decision makers information and relevant recommendations on the policy changes needed to promote AFS that improve rural livelihoods. These livelihoods, to varying degrees, depend on on-farm and off-farm income; those based on cacao and coffee production are vulnerable to the volatility of world market prices for these crops. They are also vulnerable to changes in norms and regulations governing exports and imports of agricultural products. Wood fuels derived from AFS are an important resource for many rural and urban households in the region. Shade trees also provide intangible cultural benefits/services (e.g., spiritual and aesthetic functions) as well as significant amounts of timber, fruits and other non-timber products (natural medicines, fibers, etc), the latter being of particular value for women, children and the elderly. Thus the trees in AFS can contribute to the diversification of farmers` revenues and improve rural livelihoods in many ways."
http://www.pcp-agroforestry.org/scientific-themes/theme-3---afs-for-the-improved-livelihood-of-the-rural-poor

Last Book edited

by Scientific Partnership Platform for Agroforestry in Mesoamerica

Ecosystem Services from Agriculture and Agroforestry Measurement and Payment
Edited By Bruno Rapidel, Fabrice DeClerck, Jean-Francois Le Coq and John Beer (2011)

"Agricultural systems are no longer evaluated solely on the basis of the food they provide, but also on their capacity to limit impacts on the environment, such as soil conservation, water quality and biodiversity conservation, as well as their contribution to mitigating and adapting to climate change. In order to cope with these multiple service functions, they must internalize the costs and benefits of their environmental impact. Payments for ecosystem services are hoped to encourage and promote sustainable practices via financial incentives. The authors show that while the principle is straightforward, the practice is much more complicated. Whereas scenic beauty and protection of water sources provide benefits to the local population, carbon sequestration and biodiversity conservation can be considered international public goods, rendering potential payment schemes more complex. Few examples exist where national or international bodies have been able to set up viable mechanisms that compensate agricultural systems for the environmental services they provide. However this book provides several examples of successful programs, and aims to transfer them to other regions of the world. The authors show that a product can be sold if it is clearly quantified, there exists a means to determine the service's values, and there is a willing buyer."
http://www.earthscan.co.uk/?TabId=102568&v=513258

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