



4th World Congress on Agroforestry

20-22 May 2019
Montpellier, France

Book of Abstracts



Beyond economic advantages of agroforestry systems: what role and place of externalities in farmers' strategies?

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Most agroforestry systems in the world results from local adaptation to climate, soils, crops and markets conditions for a specific crops combination and generally linked with a crop opportunity for export during colonial era which is mainly true for coffee, cocoa, rubber and clove. The focus is then put on income generation and rapid monetarization of local livelihoods. Some systems are purely resulting from local demands such as coconut tree based systems with focus on food for self-consumption. Some systems are based on a main cash crop (rubber, cocoa, coffee...). In all cases, production diversification is a key element for a better global resilience through production of the main crops and fruits, firewood, timber wood, resins, rattan... and other plants such as medicinal plants. Some products are sold and some self-consumed largely depending on access to markets. The "useful" biodiversity is then largely known and combined to fulfill a better resilience, based on crop diversification in order not to depend only on one product and generate in the short/mid term several sources of income. But the "non useful" biodiversity or more exactly the non-marketable biodiversity is also producing ecologic services in the long run that are highly appreciated and generally well known by local people. What is the role of these externalities in agroforestry development and associated farmers' strategies. If most income analyses have difficulties in providing a value to these externalities, they may have a key role in farmers' choice and preference in agroforestry rather than monoculture when they have the choice.

In other words, if profitability and short term income generation are often a priority for most smallholders, long term stability, positive externalities provided by ecological services of agroforestry systems and the search for a better resilience are key factors in developing agroforestry strategies in the long run. We provide several examples of that trend for rubber agroforestry in Indonesia and Thailand, clove agroforestry in Madagascar and coffee agroforestry in Nicaragua.

Key selected bibliography

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Keywords: Agroforestry, Externalities, strategies, Asia, Madagascar.

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