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BOOK OF ABSTRACTS

**Agroforestry for the transition towards
sustainability and bioeconomy**



Expansion of cashew in the post-forest zone of Côte d'Ivoire: between reconversion strategies and crop diversification in a context of land saturation and ecological change

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Abstract

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Title: Expansion of *Anacardium occidentale* L. in the post-forest zone of Côte d'Ivoire: between reconversion and crop diversification strategies in a context of land saturation and ecological change.

Abstract

Before independence, Côte d'Ivoire focused its economic development on agriculture, mainly coffee, then cocoa. After independence, public policies contributed to farmers' preference for cocoa, which became the main source of agricultural income for both the Ivorian population and the state. The development of cocoa has been at the expense of the forest, which has shrunk from 12 million hectares in 1960 to less than 2 million hectares today. Faced with a decline in productivity due, among other things, to aging plantations, declining soil fertility and seasonal instability, difficulties in renewing farms are observed in the various cocoa loops (Assiri, 2007). Thus, we are witnessing the reconversion or diversification of these former coffee and cocoa orchards towards other perennial crops, particularly cashew.

This study aims to identify strategies based on the adoption of cashew nuts by farmers in a context of land saturation and ecological change. To serve this objective, the authors mobilize two (02) case studies in the Center-West of the country, the first one on the periphery of the classified forest of Haut-Sassandra subject to strong land pressure, the second one between Gagnoa and Sinfra, where cocoa farms are strongly affected by the swollen shoot disease. Socio-economic surveys were conducted in 21 localities to identify the strategies developed by farmers to deal with land saturation and climate change. Data collection was carried out through individual and semi-structured interviews using a questionnaire. The questions asked were related to the farmers' settlement period, the age of cultivation, the cultural precedent of the crops, the adaptation strategies, and the species associated with the main crops. A total of 464 farmers were interviewed. The results of the analyses showed that cashew nut cultivation appeared in the first study area between 2001 and 2005 with a settlement rate of 3%. Between 2011 and today, the rate of expansion is about 90%. Half of the cashew plantations have as their main cultural precedent old cocoa and coffee plantations (age > 30 years). In the second study area, the progression is staggered, starting in 2010/11, but accelerated by the progression of the swollen shoot. In 2019, almost 100% of farmers have cashew trees.

Finally, the introduction of cashew, which is a savannah crop in cocoa and coffee producing areas, follows three strategies. The first is that cashew tree stands provide shade for juvenile cocoa trees and also restore impoverished land. Indeed, farmers use the humus provided by the decomposition of the dry leaves of the cashew tree to enrich the soil. The second strategy is the reconversion of old cocoa and



coffee plantations. Indeed, this second strategy consists in gradually replacing unproductive cocoa and/or coffee tree stems with cashew nuts. Finally, despite the price collapse in 2018, the introduction of cashew nuts on cocoa and coffee farms is a strategy to diversify farmers' sources of income. In addition to cashew nuts, farmers associate to their plantation exotic species (*Mangifera indica*, *Persea americana*, *citrus sp...*) and forest species (*Ricinodendron heudelotii*, *Irvingia gabonensis*, *Milicia excelsa*, *Garcinia Kola*, *Elaeis guineensis...*). The products from these species are mainly used for food, medicinal care, fodder, timber. These agroforestry strategies based on the introduction of cashew trees and woody species in plantations deserve to be improved and disseminated in areas subject to strong land pressure, in a context of land saturation and climate variability.

References

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