

Women, products from associated species with cocoa trees and food security of cocoa-producing households in central Côte d'Ivoire

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Introduction

- Species associated with cocoa trees contribute to several services of rural and urban populations mainly provisioning (Figure 1) ones through their direct consumption in households (Kossonou, 2020).
- Products from those companion species are among the natural resources that women in central Côte d'Ivoire use to diversify household food consumption and enhance their income.
- The lack of data to assess the importance of the associated species to the food security of the producers visited is one of the obstacles to their promotion.
- To help improve this knowledge, the present study aimed to analyze the contribution of the associated species in agroforestry systems to the diet and food security of households of women involved in cocoa production area of Kokoumbo, in Central Côte d'Ivoire.



Figure 1 : Overview of banana trees associated with cocoa trees

Methods

- To achieve the objective, semi-structured interviews were conducted with women to collect data on their food and consumption habits in order to assess the level of self-sufficiency and food security of households (Figure 2).
- To do this, the CARI (Consolidated Approach to Reporting Food Security Indicators) methodology, which is used to analyze food insecurity and establish its prevalence within a population, was applied.



Figure 2 : Interview with a woman at her home in Bonikro

Results

- Among 268 women involved in cocoa production in this area, more than 30% own a cocoa farm (Figure 3).
- A total of 79 plant species have been recorded, belonging to 67 genera and 31 botanical families (Figure 4).
- The species that are more present are *Musa paradisiaca* (Figure 5a), *Persea americana* (Figure 5b), *Citrus sinensis* (Figure 5c), *Elaeis guineensis* (Figure 5d) and *Mangifera indica*.

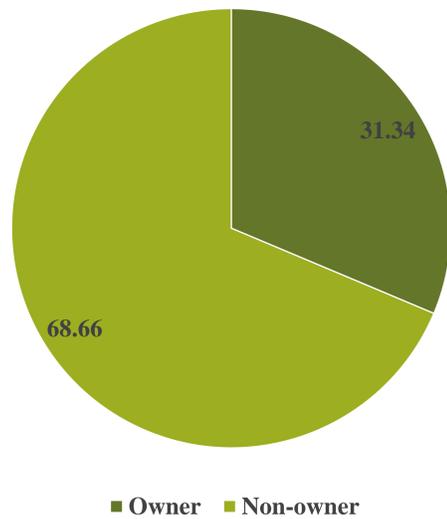


Figure 3 : Women's status on the plantation



Figure 5 : a) *Musa paradisiaca* ; b) *Persea americana* ; c) *Citrus sinensis* ; d) *Elaeis guineensis*

- In general, the species associated with cocoa trees are used for self-consumption and sale. For other services, they are a source of shade, pharmacopoeia, social aspect (donation and reception of guests), as bio-fertilizer, timber and firewood (Figure 6).

- The study shows that 12% of households surveyed are food insecure, of which 4% are severely food insecure and 8% moderately food insecure (Figure 7).

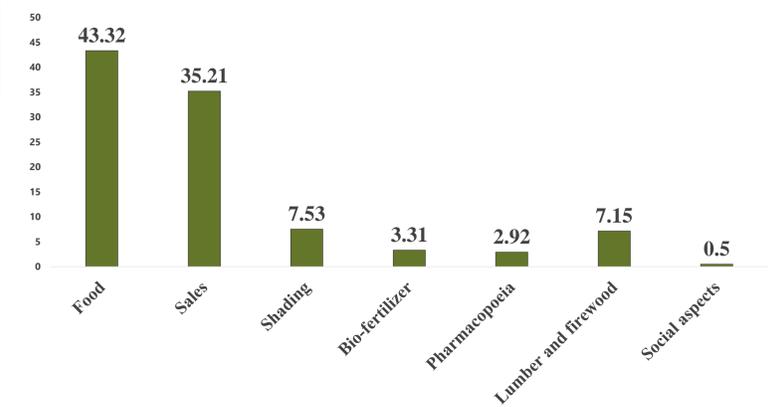


Figure 6 : Use of associated species in cocoa farms by women in the study area

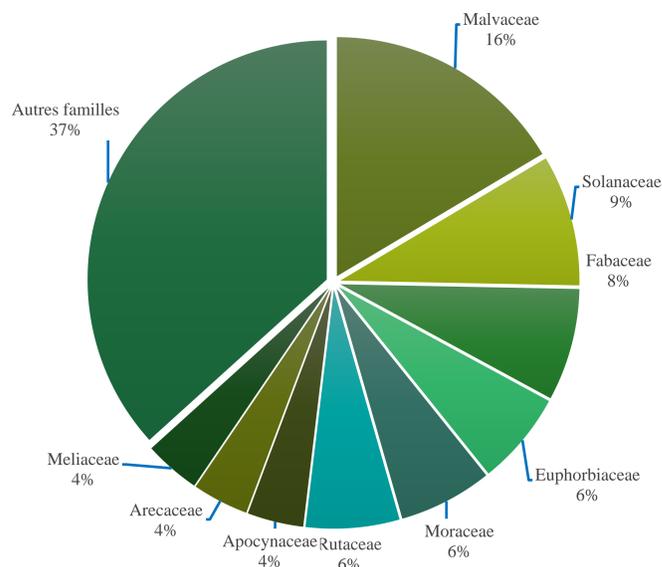


Figure 4 : Spectrum of associated species families in the agrosystems of the study area

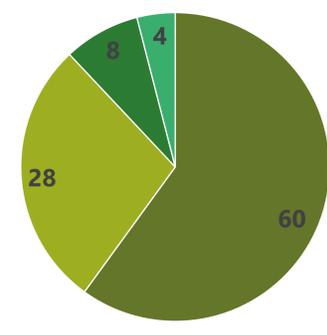


Figure 7: Prevalence of food insecurity in the study area, according to women

Highlight

- A total of 79 plant species were identified, 23 of which are used by women to meet their household food needs.
- As a result, 88% of households surveyed are food-secure, compared with 12% who are food-insecure.
- In terms of quantity, products from cocoa agroforests enable people to meet their food requirements.
- Domestication of certain associated products would enable women to have them available all year round for household consumption and eventual marketing.

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