Diversity and Uses of Non-Timber Forest Products in Organic Cocoa base Agroforests in the South-east of Côte d'Ivoire

ADOU YAO Constant Yves, TOKOU Bonna Antoinette, ETTIEN Kouassi Rolande, VROH Bi Tra Aimé, GARNIER Benjamin

¹BioValSE, UFR Biosciences, Université Félix Houphouët-Boigny, Côte d'Ivoire

² Centre Suisse de Recherches Scientifiques en Côte d'Ivoire (CSRS)

³ONG NITIDÆ

Corresponding Author: adouyaocy@gmail.com

Introduction

In Côte d'Ivoire, through the Project REDD+, the NGO NITIDÆ has certified as organic some agroforestry farms according to a strict base among which the presence of NTFPs. The current study highlighted the diversity and importance of the uses of some NTFPs from these cocoa agroforestry systems.

Methods

- Study site: the Region of La Mé in the South-east of the country (Figure 1).
- Assessment of the NTFPs and their importance in 50 organic cocoa plots in three sites (Figure 2).
- Ethnobotanical surveys: 50 producers and 75 stakeholders involved in the valorization of NTFPs with economic potential.
- Botanical inventories: to record, identify, and measure the tree species diameters.
- Data analysis: ethnological, botanical, economical, and statistical methods through the Software R.

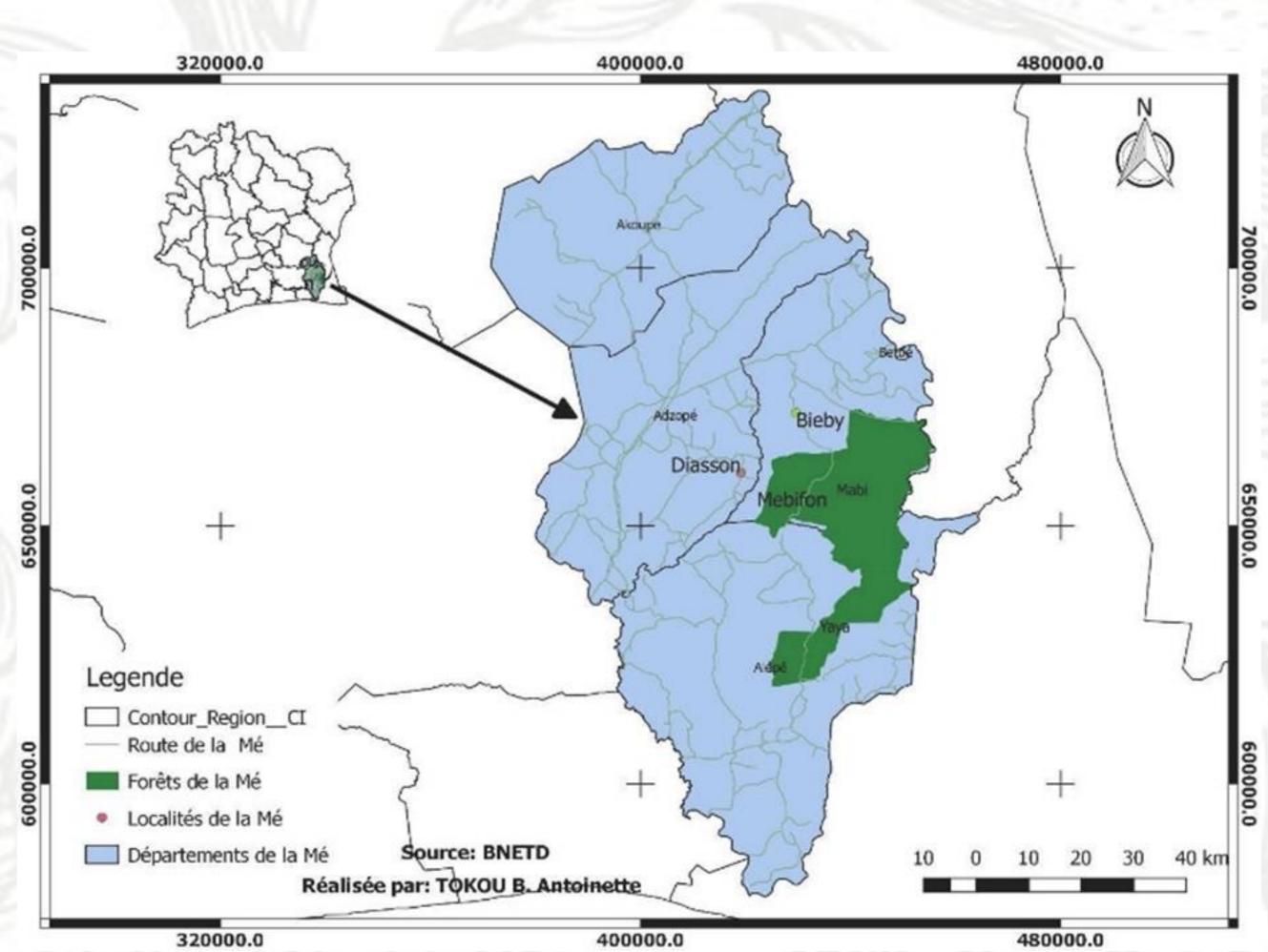


Figure 1: Study site location in the South-east Côte d'Ivoire

Results

- High diversity of indigenous species linked to the plant richness of the cocoa farms (117 species).
- 48 species among those inventoried were used diversely by local populations for food, medicinal, cultural, aromatic and others (crafts, packaging) purposes. The fruits and barks were the most used organs (Figures 2 & 3).
- The total income from the sale of NTFPs was around 17.24 millions FCFA/an (27,358 \$ US/year) in the study area varying from an actor of a distribution channel to another (Figure 5).

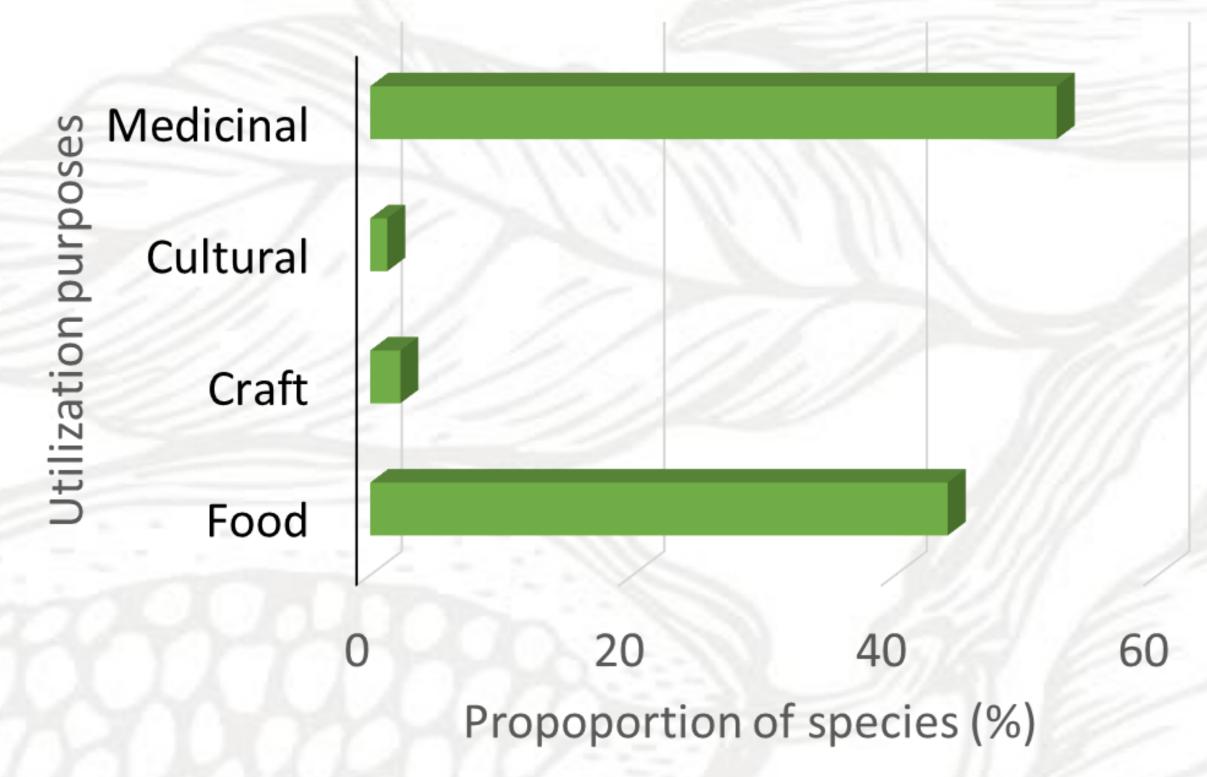


Figure 2: Utilization puposes of NTFPs in organic cocoa agroforestry systems in La Mé Région



A: Fruits of Garcinia kola



B: Fruits of *Thaumatococcus daniellii*



C: Fruits of Ricinodendron heudelotii

Figure 3: Fruits and almonds of some species harvested from cocoa farms and sold on the markets (A - B - C - D - E - F)



D: Almonds of Garcinia kola



E: Fruits of Xylopia aethiopica



F: Almonds of *Ricinodendron heudelotii*

Conclusions: NTFPs are a real source of additional income in the study area. However, some challenges remain to make the value chain sustainable.