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Farmers’ and academia’s views”

## Diversification strategies for sustainable cocoa production in Côte d’Ivoire

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### Abstract

In West Africa, the introduction of cocoa farming has led to the destruction of large areas of forest. Over the years, cocoa alone is rarely sufficient to generate a subsistence income for farmers or to support their families. Thus, sustainable agricultural intensification and the integration of agroforestry into cocoa plantations has become an imperative in order to preserve biodiversity but without compromising agricultural production, food security and development objectives. Indeed, agroforestry is introduced to facilitate diversification and support of production, and increases the resilience of rural landscapes and livelihoods. Introducing of agroforestry systems further follows the notions that when taking into account the different cropping practices, the economic profitability of the by-products of agroforestry systems and their usefulness leads to a fairer and more efficient design for sustainable production. Current research mainly focuses on agro-economic impacts of agroforestry systems. Little is known about agroforestry systems’ contributions to producers’ livelihoods, and their value for domestic consumption. This study aims to narrow this gap by analysing different household-scale cropping systems and their carbon stocks, the socio-economic utility of trees associated with the different production systems, and the determinants of adoption of agroforestry practices. To this end, floristic inventories of 625 m<sup>2</sup> in 150 cocoa plots and a mapping of the different land use systems, as well as socio-economic surveys will be carried out among 300 households in five localities of Côte d’Ivoire (Abengourou, Aboisso, Agboville, Yamoussoukro and Divo) targeted by the Pro-Planteurs project. Quantitative and qualitative analyses of variables and statistical tests will be carried out for this purpose using R software. Thereby, the cropping systems are mapped and characterised according to their floristic characteristics and their contributions to socio-economic indicators and adoption drivers of agroforestry practices by cocoa farmers are identified. The results will help to design and implement agroforestry systems with better market potential and land profitability adapted to the context.

**Keywords:** Agroforestry, cocoa, Côte d’Ivoire, household, livelihood