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Image: Rodrigo Flores

Coop Research Program | Call 6

Dynamic agroforestry systems for sustainable intensification of cocoa production

Background
More than half of the world's cocoa (*Theobroma cacao* L.) grows in unsustainable monocultures in Ghana and Ivory Coast in West Africa. Dynamic agroforestry as introduced in West Africa by ECOTOP may be an option for sustainable cocoa production. However, this systemic approach is highly complex and thus knowledge- and labor-intensive. Consequently, there is a need to study its applicability in the local context of West Africa.

Objective
The main objective of this project is to assess dynamic agroforestry practices in Ghana in terms of their environmental and socio-economic sustainability, as well as their feasibility for local producers. The project will identify the main differences between researcher-selected and farmer-selected criteria to engage in dynamic agroforestry. Ultimately, it will contribute to incorporate recommendations into relevant project advisory services.

Research Approach
This project uses an existing pairwise (plot-scale) comparison of dynamic agroforestry and farmers' practices to gather quantitative data on the biophysical functioning and economic performance of the production systems, as well as semi-quantitative data on farmers' motivation. The project puts a strong emphasis on participation by establishing mini-innovation platforms composed of different stakeholders.

Relevance and Expected Outcomes
This project expects to improve capacity and trust among different cocoa value chain actors through facilitating knowledge exchange. Specific knowledge about the type of dynamic agroforestry that works best under local conditions will foster sustainable cocoa production and thus help improving the sustainability of the value chain as a whole. The research team works towards the long-term goal of developing a label and certification scheme for sound agroforestry.

Food System Challenges Addressed
Sustainable cocoa production systems, Soil fertility, Poverty alleviation, Environmental and socio-economic sustainability.

https://worldfoodsystem.ethz.ch/research/research-programs/CRP/DAFS.html

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Project Cost 270'000 CHF

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