

## HORA

# mixing HORTicultural crops and Agroforestry: A global evidence map, analysis of the farmer practices and assessment of performance

## ABSTRACT

In Southern countries, trees are often cultivated with horticultural crops (e.g. mango, citrus, papaya) in multi-strata systems, such as Creole gardens (West Indies) or clove-agroforestry systems (Madagascar). These systems are particularly important in tropical regions to ensure nutritional balance, nutrients and vitamins inputs.

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**Project leader :** Damien BEILLOUIN

**Project leader's institution :** CIRAD

**Project leader's RU :** HORTSYS

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**Total budget allocated ( including co-financing ) :** 23760 €

**Funding :** Labex

## GOAL

Our objectives are to i) produce an evidence map of the knowledge and practices on such systems and produce a typology of the systems around the world.

We hypothesize that :

- The characteristics of the system (complexity, cultivated species, etc.) and their performance differ according to agro-ecological zones.
- The experiments detailed in the scientific literature represent only part of the diversity of systems observed locally.

## ACTION

Literature review, Evidence map and meta-analysis of Horticulture-Agroforestry systems in the tropics.  
Objective : Global and exhaustive assessment of scientific available knowledge on agroforestry-horticultural systems.

- Prospecting campaign and analysis of experts and farmers' knowledge on clove-Agroforestry systems  
Objective : Assessment of farmer knowledge and practices on agroforestry-horticultural systems in Madagascar, Mayotte and the Comoros

## RESULTS

An open-access literature database on scientific knowledge on horticulture-Agroforestry systems.

- A precise description of knowledge and knowledge gaps on these systems

- A Quantification of the performance of the systems
- A precise typology of Horticulture-Agroforestry systems in the tropics
- A quantification based on probabilistic expert elicitation of the performance of clove-tree agroforestry systems in Madagascar

## **PERSPECTIVES**

Creation of a multi-institutional working group on horticultural -agroforestry systems