

## 7. STRADIV

System approach for the TRAnSition to bio-DIVersified agroecosystems



### OBJECTIFS

The main objective of the project is to improve the agroecological transition of agroecosystems in tropical regions on the basis of their biodiversification and their compatibility with multi-scale adaptation processes built by and with local stakeholders.

The project is structured around three scientific questions:

- Q1: What are the effects of plant functional diversity on pest and disease control, biogeochemical nutrient cycles and crop production? (WP2 and WP3)
- Q2: How to design new bio-diverse cropping systems that optimise ecosystem services by considering all the constraints that farmers face at different scales? (WP4)
- Q3: How to support multi-scale and multi-actor agroecological transitions by including bio-diverse cropping systems (WP1 and WP4).

### ACTIONS

The project covers 3 main study sites: rice in Madagascar; horticulture/banana in the West Indies; agroforestry in Central America. Three additional sites have been selected for specific studies: agroforestry in Cameroon; cereals and pasture in Brazil; cereals, cotton and livestock in Burkina Faso.

### RESULTATS

The STRADIV project has helped to create a dynamic of scientific reflection on the agro-ecological transition in the countries of the South. It has also made it possible to identify two major areas of capitalisation in the diversity of contexts and situations in which these transitions are taking place. The first is the characterisation of the impacts and performances of agroecological systems (in particular through the mobilisation of biodiversity); the second is the characterisation of the performances of the methods and tools used to support the transition with production stakeholders according to the socio-economic conditions of change.

The project is entering its final year, which will be the year of the finalisation of its products. The post-doctorates that largely structure the activity on the effects of agro-ecological systems

(WP2 and WP3) are almost all completed and the scientific valorisation of their results is underway. Concerning the co-design activities in the framework of the innovation platforms (WP1 and WP4), the theses that started with some delays are being finalised and should allow the project to fulfil the main objectives of scientific capitalisation on this support. In total, 3 post-doctorates, 5 theses and more than 25 diploma courses will have been financed entirely or partially by the project.

**Responsable :** Eric Scopel and Philippe Tixier

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