MAKIS: Malagasy Agricultural Knowledge and Innovation Systems

Objective of the project

The MAKIS project seeks to strengthen Malagasy capacities to support innovations in rural areas.

Background

Malagasy farmers face both structural and conjunctural challenges that constrain their activities. Improving the sustainability and resilience of their livelihoods requires the renewal of technical and collective practices. Currently the institutional policy to support innovation is mainly based on a nationwide network of agricultural service centres (CSA). These centres are supposed to assess farmers' demands for services and match them with private service providers. This model relies on the existence of a formal sector of monetised agricultural services sector. Although recognised as very innovative, this model faces significant funding and governance challenges.

In parallel, NGOs, private companies and farmers organizations have developed a wide range of approaches and tools to support agricultural innovation. To date, few comparative and cross-cutting evaluations have been carried out on the actual adequacy, relevance, and performance of these mechanisms in the Malagasy context to provide recommendations and strengthen the innovation support services. Thus, the design of an optimal support model for Malagasy farmers, that would be adaptable to the diversity of contexts and taking into account economic, social, agronomic, and ecological assets is a growing concern for policy-makers and international agencies. Therefore, the MAKIS project will seek to fill this R&D gap by providing evidence-based recommendations and developing a regional and national network of practitioners to develop approaches, and tools to support agricultural innovation.

Theory of change to achieve the objectives

MAKIS targets three levels of impact (see figure 1). First, development practitioners will need to gain a better understanding of innovation processes and support needs, and optimise their operational approaches accordingly in the Malagasy context.

Second, we expect Malagasy national policies to focus more on an agricultural innovation system approach based on a combination of locally complementary innovation support services. As for Malagasy decision-makers, they will develop policy instruments inspired by the best practices identified by studying the functioning of NGOs, farmers' organisation, and the private sector.

Finally, we hope to influence the community of development and agricultural practitioners at the national level and disseminate evidence-based innovation support best practices (whether technical, organisational or institutional), models and recommendations.

To achieve the desired results, we have developed a strategy based on an interdisciplinary and participatory research-action approach. Development practitioners are directly involved from the early phases of the design of the project by:

- providing several innovation related case studies;
- participating to the analysis of innovations processes, drivers, their supporting systems and their implementation;
- developing, jointly with the research team, a strategic action plan to strengthen their innovation capacities.

Regular and thematic workshops will allow cross-learning among practitioners, researchers and state agencies. These workshops are also expected to contribute to the emergence of a practitioners' network animated by the project team.

The main expected results are:

- Development practitioners, researchers and government officials have a better understanding of the complexity of the innovation process and its added value for Madagascar. As a result, organisations will be able to change the way they design, implement and monitor their agricultural innovation support activities;
- Interactions between research and development actors on agricultural innovation processes and support models are facilitated.

These results will feed into the formulation of evidence-based recommendations at national and regional levels to strengthen the institutional capacity of Malagasy actors to support innovation.

These outcomes will be allowed by three complementary outputs:

- Knowledge products on the contexts, processes, drivers of innovation, the diversity and performance of innovation support systems across the country will target different audience: scientific communities, academics, development practitioners and policy-makers. An agricultural innovation support handbook on principles, steps, and lessons learnt will be produced.
- Through 'research-action' activities, we will stimulate learning and reflection among farmers and project partners. Workshops and dialogue activities will be systematically conducted (including theatre forum). Four experiments on pre-identified technical innovations will allow development partners to test open science methods. In addition, we will use the MEL (monitoring, evaluation and learning) approach to help them diagnose and monitor their innovation support system in order to observe a series of improvements.

- The creation of a network of practitioners will allow the sharing and discussion of results, feedbacks and cross-cutting issues. This network will also be an important vehicle for building the capacities of a core team, able to develop thinking about complex innovation system through a series of specific training courses, in particular the use of the MEL tools and approach.

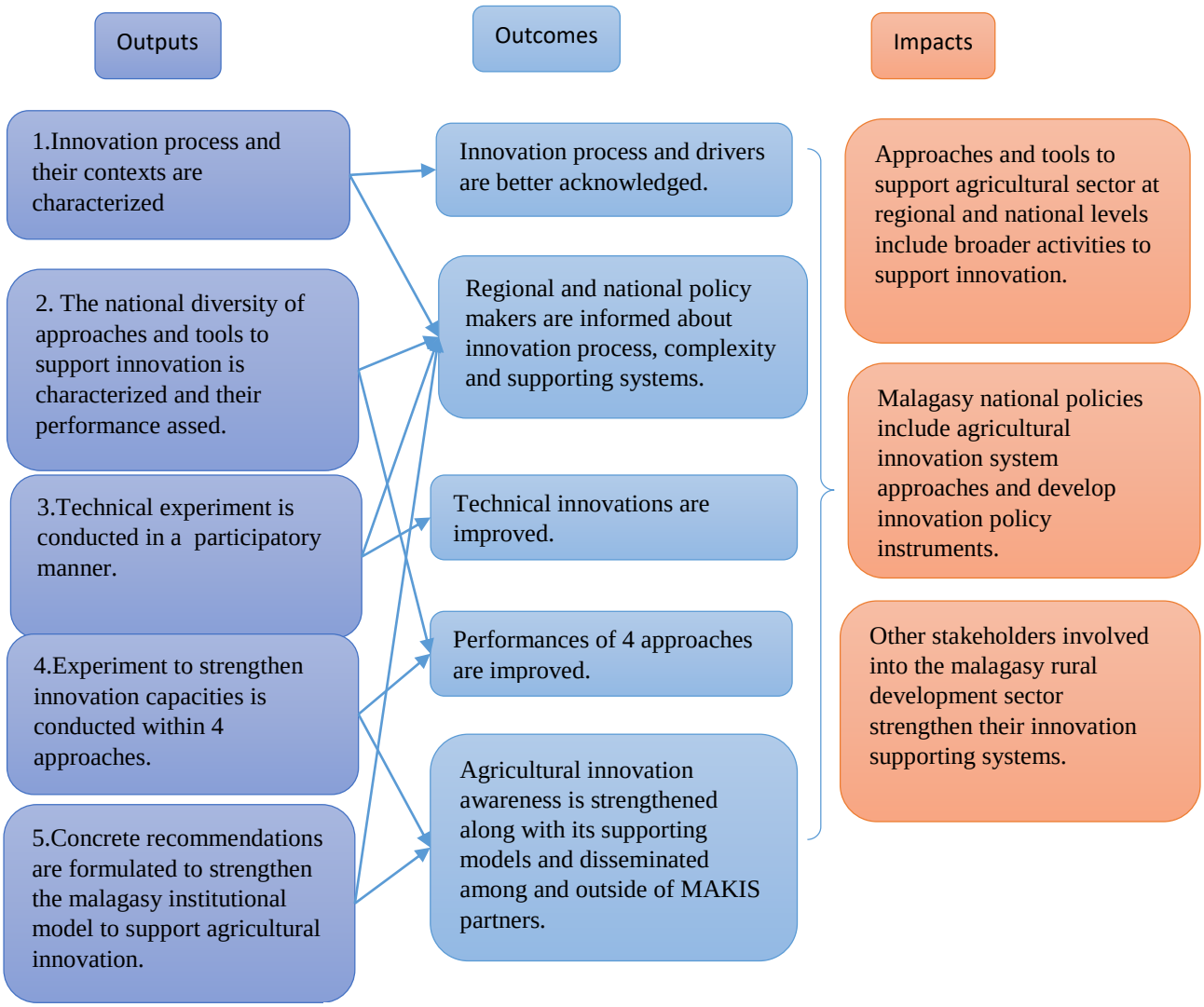

Figure 1: Ex-ante theory of change of MAKIS project

Main activities

The MAKIS project will carry out interrelated activities, using a participatory 'research-action' approach (see figure 2).

A first set of activities will consist of developing knowledge on the process and drivers of innovation in rural areas of Madagascar through surveys, participatory diagnoses, socio-anthropologic interviews, and socio-economic modelling of pre-identified technical innovations. These activities will be carried out in 10 zones to consider the diversity of biophysical, socio-economic, and institutional contexts across Madagascar.

A second set of activities will characterise and assess the approaches and tools used by 10 different stakeholders – NGOs, farmers' organisation, public research institutes, and decentralized state agencies) in the same areas and covering the same pre-identified technical innovations as in the previous set of activities. We will assess the economic and social performance of the support models comparatively through qualitative and quantitative surveys, based on a combination of farmers' perception and common indicators, and a theatre forum tool.

A third set of activities will develop participatory experimentation methods on 4 pre-identified technical innovations in 4 zones, while involving development partners. We will use the principles of co-design and participatory evaluation with a view to improving practices related to the use of organic fertilisers, clove oil processing, rainfed rice seed selection, and carbonisation practices.

A fourth set of activities focuses on experiential learning to improve the innovation support approaches and tools of 4 development partners. Specifically, this will involve using self-assessment and MEL tools to formulate an action plan, test and observe the progress of innovation capacities. Four local facilitators will be trained and will feed into the practitioners' network to develop a professional network of innovation facilitators.

A fifth set of activities consist of formulating useful recommendations for research and development partners, and policy makers. The diagnosis of regional innovation support systems and policy recommendations will be carried out in regional forums – planned in 9 regions – to discuss and share our approach and concept as well as the results, while involving decentralised state agencies and other stakeholders. A roadmap for improving national innovation support policy will then be drafted based on the 9 regional recommendations. Finally, we will contribute to the design of an operational guide to support agricultural innovation -based on the results and multi-stakeholder discussions.

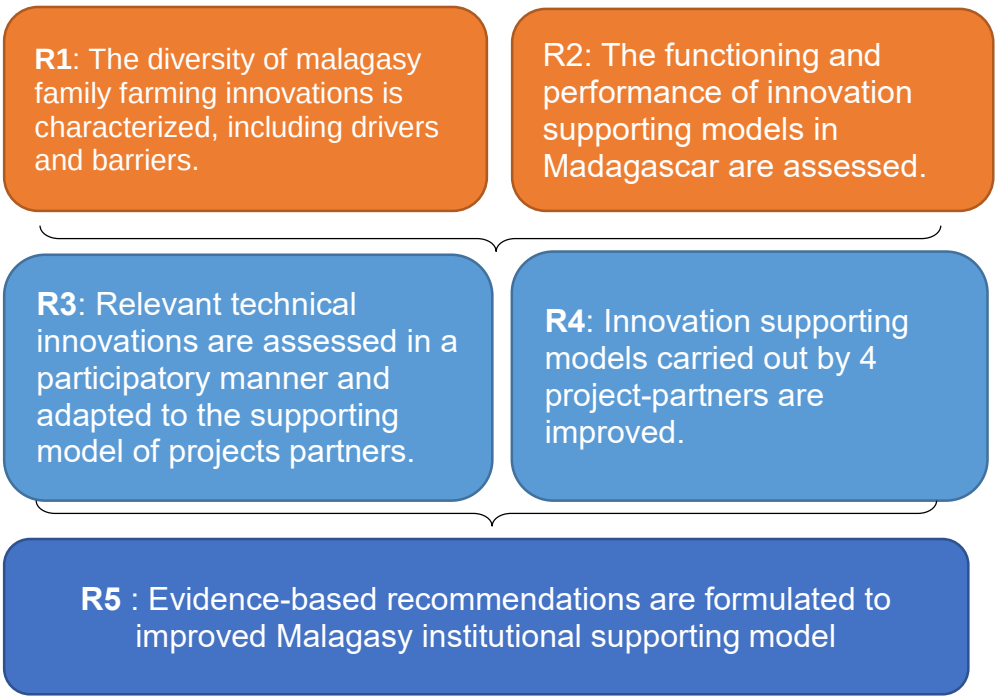

Figure 2: Structure of the MAKIS project

Organisation

The MAKIS project consists of five work packages, as illustrated in the figure 2.

The project will be guided by:

- A Steering Committee composed of representatives of the EU, the Malagasy Ministry of Agriculture and Livestock and Fisheries (MINAE), and EU-funded from transversal projects and programmes on vocational training and agricultural development (RINDRA, FORMAPROD, AFAFI);
- An Executive Committee, composed of the 6 project partners, which will advise on the implementation and monitoring of the project;
- A Coordination Unit, made of the 2 project managers and 4 experts in charge of the administrative and financial matters, logistics, monitoring and evaluation, and communication.

Implementing organisation

Centre de coopération internationale en recherche agronomique pour le développement (CIRAD): the French agricultural research and international cooperation organisation for the sustainable development of tropical and Mediterranean regions

Project partners

Research organisations

- National Centre for Applied Research in Rural Development of Madagascar (FOFIFA)
- French Research Institute for sustainable development (IRD)

Development partners

- AgriSud: an international NGO supporting sustainable rural development and the professionalization of smallholders
- GRET: an international NGO supporting a fair sustainable development
- Agronomists and Veterinaries Without Borders (AVSF)
- The Association for the Progress of Farmers (FIFATA): Malagasy professional umbrella organisation of national scope
- APDRA Pisciculture paysanne (Farming Pisciculture and Rural Development Association in Humid Tropical Africa)
- Tamatave Horticultural Technical Centre

Other key stakeholders: Institutional organisations and state agencies involved in supporting agriculture l in the 9 target regions

Location: Madagascar regions: Alaotra Mangoro, Amoron'i Mania, Analamanga, Analanjirofo, Androy, Diana, Itasy, Vakinankaratra, , and Vatovavy Fitovinany

Funding

EU	€ 2,000,000
Implementing organisation and project partners	€ 225,000
Total budget	€ 2,225,000

Duration: 5 years (January 2022 - December 2026)

 Insert logos from development partners, research institutions etc.