

## Sustainable Aquaculture in Madagascar



### Context

In Madagascar, 80 % of the population lives in rural areas. Poverty, combined with limited availability of protein and nutritious food leads to problems of undernourishment and malnutrition, especially among children. Fish is a food of high nutritional value, but it is almost exclusively available in parts of the coastal regions and urban centers. Aquaculture therefore has a remarkable potential to supply the population in rural areas and particularly in the highlands with fresh fish. Aquaculture also diversifies the sources of income for farm households and creates employment in rural areas.

However, the potential of this sector is largely under-exploited. The two main forms of freshwater aquaculture are farming of carp and tilapia in ponds and rice-fish culture, where fish are raised in rice paddies. At present, Madagascar's fish farming sector is developing only slowly.

The Malagasy government has set itself the objective of creating the necessary political, legal and administrative framework for the sustainable development of freshwater aquaculture. The project is providing its support to the government to realize this goal.

### Our objective

People affected by food insecurity in the highlands, the greater Antananarivo area and the east coast have access to more fish products and higher income derived from sustainable aquaculture.

### Activities in Madagascar

- **Disseminating rice-fish culture:** Small-scale rice farmers receive training to identify suitable rice fields and to use them for fish farming.
- **Promoting pond fish farming:** Pond fish farmers benefit from training in methods to increase their production and improved access to quality inputs.
- **Forming a fish farming cooperative:** The cooperative supports the fish farmers with technical training, the purchase of inputs as well as joint packaging, transport and sale of the fish.
- **Improving conditions for sustainable and environmentally sound aquaculture:** The project supports the development of an enabling legislative and policy framework for the fish farming sector.
- **Promoting knowledge exchange:** Through roundtables, the exchange between key sector stakeholders is facilitated to jointly devise solutions to development constraints.
- **Nutritional awareness:** An information campaign raises the public awareness of the importance of fish in a healthy diet.



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## Region

Highland regions, the area surrounding the capital Antananarivo and the east coast of Madagascar

## Term

April 2017 to June 2022

## Budget

Up to 6.7 million euros

## Lead executing agency

Ministry of Agriculture, Livestock and Fisheries  
(*Ministère de l'Agriculture, de l'Élevage et de la Pêche, MAEP*)

## Implementing partners

APDRA, COFAD/GOPA, Norges Vel, Tilapia de l'Est

## Target group

- Small-scale farmers engaged in rice-fish culture and pond fish farming
- Small-scale farmers producing fingerlings
- The food and nutrition-insecure population
- Actors in the aquaculture value chain, from fingerling producers to restaurant owners, as well as retailers and other intermediaries.

## WHERE WE WORK



## A real-life example

Should we farm fish or grow rice? For some farmers in Madagascar, this question does not arise. They produce both at the same time. Rice-fish culture makes it possible to integrate fish farming into existing rice cultivation.

Once the rice seedlings are planted, carp fingerlings are released into the flooded fields. Since the use of chemical fertilizers and pesticides is prohibited, the fish encounter a healthy habitat where they find sufficient food such as snails, insects and other small animals. For the rice farmers this investment pays off twofold: On average it enables them to harvest 50 kilogram of fish in addition to their rice crop. Moreover, rice production increases by 10 to 20 %, because additional nutrients are released while the carp search the soil for food.

Currently only about 20 % of suitable fields are used for rice-fish farming. There is a lack of advisory services to disseminate the required knowledge. For this reason, one of the project activities in Madagascar aims at scaling-up rice-fish culture.



The project reaches out to rice farmers, and especially women, who grow and process rice.

Through training and practical examples, farmers learn how to identify suitable rice fields and make optimal use of them for rice-fish farming and how to produce high quality fingerlings.

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