

## What **PATIMA** can assist?

**PATIMA** provides various types of technical training on tilapia aquaculture. For core fish farmers who are able to produce fish seeds and transfer the techniques to other farmers, topics covered include seed production, feed development, and fish farm management.

**PATIMA** also supports farmers who are willing to start tilapia culture by providing guidance on pond excavation and aquaculture techniques.

## How can I join **PATIMA** ?

Target areas for **PATIMA** are Majungall, Marvoy, Ambatovoni within Voeny District.

**PATIMA** welcomes individuals who live in these areas and have ponds or paddy fields and communes that have communal ponds or lakes. If you are one of the above and have a strong interest in tilapia aquaculture, please contact the project office. Detailed information of project activities and the training schedule are available at the project office. Our offices are located at the Centre de Développement de la Culture de Crevettes (CDCC), Amborovy, and the Direction Régionale de la Pêche et des Ressources Halieutiques (DRPRH), la Corniche, Mahajanga.



# PATIMA



Rural Development Project  
through the diffusion of  
Aquaculture of Tilapia in the  
Province of Mahajanga (Region of  
Boeny) North West of Madagascar



Project office: Centre de Développement de la Culture de Crevettes(CDCC), Amborovy, Mahajanga

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Rural Development  
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# PATIMA

## Better Village through Better Tilapia Aquaculture



Mahajanga

Antananarivo

Target Areas

Majunga II

Marvoy

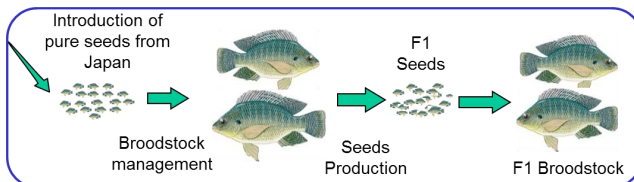
Ambatoboeny

In March 2011, the Japan International Cooperation Agency (JICA) and the Government of Madagascar launched the “Rural Development Project through the Diffusion of Aquaculture of Tilapia,” known as PATIMA. Located in the Boeny Region in the northwest of Madagascar, this technical cooperation project continues for 3.5 years until September 2014.

PATIMA aims to improve the livelihoods of farmers in the target areas through the dissemination of locally appropriate tilapia aquaculture techniques. It takes the following four approaches to establish an extension.

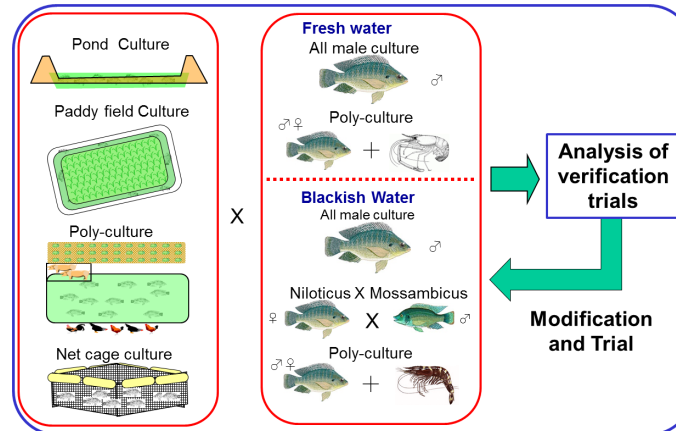
### 1) Develop locally appropriate methods for tilapia seed production

Tilapia (*Oreochromis niloticus*) start efficient breeding when water temperature exceeds 25°C and repeat spontaneous production. The female practice mouth-breeding, which raise the survival rates of fingerlings. PATIMA identifies and develops appropriate techniques for tilapia seed production and broodstock management while taking into consideration these characteristics.



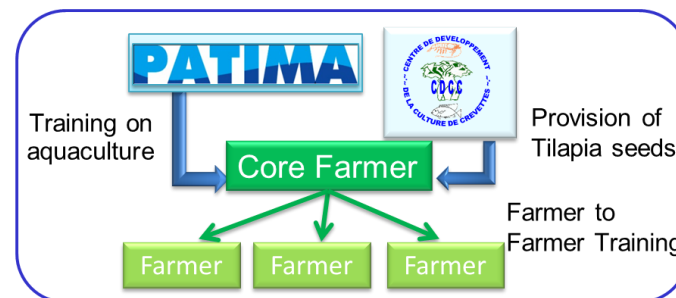
### 2) Verify locally appropriate aquaculture methods

PATIMA proposes using extensive and semi-intensive aquaculture methods, which can increase production with low input. Verification trials are carried out on fish farms that vary in size and structure of the fish pond, water quantity and quality, timing of fingerling release, and type of feed.



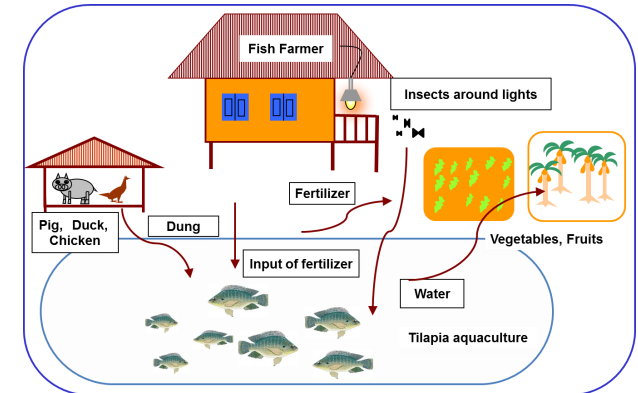
### 3) Improve the capacity of extension staff, core farmers, and other relevant persons for aquaculture

PATIMA supports extension officers to develop their capacity to plan, formulate, and coordinate activities and to improve their aquaculture techniques. In cooperation with trained extension officers, PATIMA identifies and trains core fish farmers who play key roles in disseminating aquaculture. By involving the core fish farmers, PATIMA takes the farmer-to-farmer extension approach to establish a sustainable and efficient aquaculture extension system.



### 4) Improve the living conditions of small-scale farmers in target areas

PATIMA applies low input & low risk aquaculture techniques, aiming at comprehensive rural development. It promotes tilapia aquaculture based on careful examination of available resources and the characteristics of agriculture, forestry, livestock and fishery in the target areas.



#### Project Information

【Project Duration】 : March 2011-September 2014

【Overall Goals】 : Through the extension of Tilapia aquaculture, livelihoods of farmers in the target area are improved

【Project Purpose】 : Tilapia aquaculture extension system is established in the target area

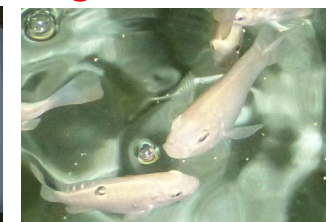
【Activities】 :

Conduct baseline survey, introduce pure niloticus from Japan, carry out on-farm verification trials, develop an improved technical package on seed production techniques, prepare the regional aquaculture development plan, conduct follow-up survey.

### Star of Madagascar



Safe arrival at IVATO airport from Japan on 23rd June, 2011, after 93-hour flight



Pure *Oreochromis niloticus*, we call “NILO-JICA”