



Australian Government

Australian Centre for
International Agricultural Research

Fisheries

Accelerating the development of finfish mariculture in Cambodia through south-south research cooperation with Indonesia



Overview

Marine finfish aquaculture is an emerging industry in Cambodia where it is developing along dualistic lines. This includes a combination of small- to -medium enterprise farms using small cages and simple technology, and at least one large sea cage farm, using large cages and more advanced technologies.

In contrast, marine finfish aquaculture is well established in Indonesia, and ACIAR has supported targeted research and development on grow-out nutrition, hatchery technology, and fish health. Cambodian and Indonesian researchers jointly proposed the use of established capability in Indonesia to train Cambodian researchers in support of that country's developing marine finfish aquaculture sub-sector.

The mechanism to support this initiative is a research and capacity-building cooperation between Cambodia and Indonesia, with mentoring support by Australian researchers.

KEY FACTS

ACIAR Project No. FIS/2016/130

Duration: September 2017 to June 2021 (4 years)

Target areas: Cambodia and Indonesia

Budget: A\$949,998

Project Leader

Associate Professor Nicholas Paul, University of the Sunshine Coast

Key partners

- Department of Primary Industries, New South Wales
- Fisheries Administration, Cambodia
- Research Institute for Coastal Aquaculture, Maros, South Sulawesi
- Institute for Mariculture Research and Development, Gondol, Bali

ACIAR Research Program Manager

Dr Ann Fleming

Objective

The overall aim of this project is to accelerate the development of finfish mariculture in Cambodia by leveraging previous and ongoing ACIAR investments in Indonesia through south-south cooperation.

The project's three main objectives are to:

- Accelerate the development of marine finfish aquaculture in Cambodia by building inclusive research and development capacity at Indonesia's Marine Aquaculture Research and Development Centre in Preah Sihanouk province.
- Support the development of rabbitfish aquaculture in Indonesia.
- Evaluate the context favouring successful south-south development cooperation vs. traditional bilateral cooperation.

Expected scientific results

- Quantitative information on potential feed ingredients that can be used by local farmers to reduce the quantity of 'trash' fish used to feed marine finfish and for local production of aquafeeds.
- Successful development of extensive larval rearing approaches for rabbitfish.
- Farmers with appropriately designed and managed ponds will be able to rear larvae of rabbitfish and other marine finfish without relying on hatcheries.
- Increased availability of rabbitfish seedstock, supporting increased production of rabbitfish in Indonesia.
- Innovative applications for marine finfish larviculture also used for rearing other species.
- Increased quality of fingerlings produced by Indonesia's Marine Aquaculture Research and Development Centre and supplied to local farmers or to the proposed commercial mariculture developments.

Expected outcomes

- Cambodian researchers trained in fish nutrition, hatchery production and fish health to a standard capable of supporting marine finfish aquaculture development.
- Expansion of the marine finfish aquaculture industry in Cambodia due to improved seedstock quality and quantity, and provision of technical support services.
- Development of cost-effective seedstock production technology and grow-out diets for rabbitfish.
- Improved knowledge of the use of local (Cambodian and Indonesian) feed ingredients in fish diets.
- An assessment of the benefits and constraints of the south-south cooperation approach, and a framework for inclusive south-south trilateral cooperation application in future ACIAR projects.
- Increased capacity for the development of a sustainable and economic fisheries sector in Cambodia.
- Increased number of mariculture farmers and production of mariculture fish providing opportunities for input suppliers and others involved in seafood value chains.

