

# Building mariculture capacity in Papua New Guinea



## Key details

### Location

Papua New Guinea

### Duration

Start Jan 2011

End Jun 2014

### Budget

AUD 92,295

### Commissioned organisation

James Cook University

### Partners

DEEDI; National Fisheries Authority

### Project Leader

Paul Southgate - James Cook University

### Program

[Fisheries](#)

### Project code

FIS/2010/017

provides. The development of mariculture opportunities in PNG can now be supported by the recently completed National Fisheries Authority (NFA) Nago Island marine hatchery and training facility, based in New Island.

The role of the facility was to develop marine aquaculture opportunities for PNG and become a training centre for students from the National Fishing Centre (NFC). However, for the facility to achieve its goal there was an immediate need for capacity building from both technical and mariculture perspectives.

FIS/2010/017 developed capacity at the Nago Island facility, relating to the management of the facility and the husbandry of cultured marine organisms. It involved the training of facility staff at established research institutions with similar roles, expectations and support needs. It also included basic culture trials using coral and spiny lobsters which generated baseline information relating to their potential.

These activities drew on existing expertise within ACIAR projects, and could bring positive benefits to Australia, which is developing similar industries with these commodities. This project also provided contemporary textbooks and background material for Diploma level training at NFC. This supports future mariculture capacity through high quality local graduates.

## Overview

Numerous communities in Papua New Guinea are dependent on the coastline marine resources for the livelihoods of their families. Whilst coastal waters, reef and fish stocks are comparatively healthy, communities are failing to capitalise on the potential economic and livelihood opportunities this environment

## Project outcomes

Development of mariculture opportunities in PNG can now be supported by the recently completed National Fisheries Authority (NFA) Nago Island Mariculture Research Facility (NIMRF) at Kavieng, New Ireland. The role of the NIMRF is to develop marine aquaculture-based livelihood opportunities for PNG and to become a training centre for students from the National Fisheries Centre (NFC). However, the current staff of NIMRF have limited experience in maintaining and managing mariculture systems, and in husbandry of marine organisms. For NIMRF to fulfil its desired role, there is an immediate need for capacity building from both technical and husbandry (mariculture) perspectives.

Another priority is identification of commodities with potential to support viable, sustainable mariculture industries for coastal communities in PNG. Some species with such potential were identified in preliminary research conducted during FIS/2006/138 (“Developing aquaculture-based livelihoods in the Pacific islands region and tropical Australia”), but further scoping of appropriate species for mariculture in PNG is required as a basis for greater research investment.

This project developed capacity relating to management of the facility and husbandry of cultured marine organisms at the NIMRF. It involved training of Nago Island facility staff during visits to established mariculture research facilities with similar roles, expectations and support needs. It also included basic culture trials at the Nago Island facility using corals and spiny lobsters to generate baseline information relating to their culture potential and improve husbandry capacity. These activities drew on existing expertise within ACIAR research projects and involved technology transfer. The project also provided contemporary textbooks and background materials for Diploma level training at the NFC to replace those lost in a fire at NFC.

This project was completed in 2013 but a number of the activities it began (i.e. culture of ornamental species) were continued at the NIMRF as part of the

larger follow-up project FIS/2010/054 (“Mariculture development in New Ireland, Papua New Guinea”) which focussed on developing culture methods for sea cucumber, edible oysters and ornamental species. This project provided an excellent technical basis for FIS/2010/054 and built capacity within NFA staff that will support mariculture research, and the important support role of NIMRF, into the future.



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