Fisheries

Expanding spiny lobster aquaculture in Indonesia

Indonesia

Overview

Spiny lobster farming in Indonesia continues to develop and evolve. The capture of seed lobsters and their grow-out uses simple technology and minimal capital, and is ideally suited to village-based enterprises. But in the last several years, spiny lobster farming in Indonesia has taken two steps forward and one step back.

The availability of lobster seed has expanded significantly and now exceeds that of Vietnam, which boasts a thriving lobster farming industry. The capacity of Indonesian lobster fishers and farmers has increased, and the opportunity for a large industry employing whole coastal communities is stronger than before. Nevertheless, lobster grow-out has diminished as an unexpected result of the increased seed catch, with coastal communities focusing more on seed capture and immediate sale.

This project comes at a critical juncture for the industry and will increase the engagement of farmers in lobster grow-out, addressing the priority issues of improved survival of lobster seed through the nursery and grow-out phases. The research will continue to benefit smallholders in impoverished coastal communities. The project will also engage established private sector aquaculture companies to invest in lobster farming within their existing operations and to invest in the village-based lobster industry.

KEY FACTS

ACIAR Project No. FIS/2014/059
Duration: July 2015 to June 2019 (4 years)
Target areas: Indonesia
Budget: A$1,870,630.25

Project Leader
Dr Clive Jones, James Cook University

Key partners
- CSIRO Food Futures Flagship
- Advanced Choice Economics P/L
- Agency for Marine Affairs and Fisheries Research and Development
- Institute for Mariculture Research and Development, Gondol
- Marine Fisheries and Aquaculture Development Centre of Lombok
- BBAP Ujung Batee Aceh
- Bogor Agricultural University

ACIAR Research Program Manager
Dr Ann Fleming

Objective

The project's overall aim is to expand production of tropical spiny lobster in Indonesia through research that defines best practices and ensures their adoption by farmers.

The project's specific objectives are to:

- Develop and expand a sustainable lobster seed catch sector in Indonesia.
- Define optimal lobster grow-out production technology.
- Build capacity in lobster aquaculture research and production.
- Evaluate the socio-economic impacts of lobster farming for Indonesian communities.

Expected scientific results

- Expansion of lobster seed availability in Indonesia using fishing and handling methods that maximise survival and quality of seed for grow-out.
- Best practice procedures for the aquaculture production of consumption-sized lobsters documented in a manual and presented through demonstration farms and workshops.
- Increased capacity of research personnel.
- Quantitative assessments of bioeconomic and social impacts of lobster aquaculture development in rural communities in Indonesia.
- Research results, including the status of Indonesian lobster farming and market assessment for farmed Indonesian lobsters, published and shared through peer-reviewed journal papers and at international conferences.

Expected outcomes

- Significant economic and social benefits for impoverished coastal communities throughout Indonesia due to an increase in the production of marketable lobsters and creation of related jobs.
- Creation of demonstration farms in locations deemed suitable for sea cage lobster farming to ensure an effective adoption pathway.
- Increased research capacity at national level due to training in laboratory-based experimentation, particularly on nutrition research.
- Greater knowledge and confidence among farmers to adopt new technologies and practices to grow lobsters longer for a higher farmgate price.
- A shift toward more lobster farming potentially reducing fishing and the associated impacts on local marine ecosystems.

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